

DEVELOPMENT OF OIL IN THE MIDDLE EAST

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DEVELOPMENT OF OIL IN THE MIDDLE EAST

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CHAPTER I

DEVELOPMENT OF OIL IN THE MIDDLE EAST

The discovery of oil in the Middle East signaled a significant geographic change in the development of an important energy source. The dependence upon oil by underdeveloped countries seeking industrialization along with dependence upon oil by well organized economies magnifies the importance of oil as an energy source and magnifies the significance of the Middle East as an area of vast oil potential. Contrary to some current opinion, there does not appear to be a world shortage of oil, and there does not appear to be a shortage developing in the near future. Of all the world oil reserves known to be in existence, 62.5 per cent are found in the Middle East;¹ this area accounted for 27.7 per cent of the total world oil production in 1965.² Middle East oil reserves increased 6.3 per cent during 1965, while reserves in the entire world increased 6.8 per cent.³ Iran produced

¹"World Crude Oil Reserves around 375 Billion Barrels," World Oil, CLXIII (August 15, 1966), 93. Oil and Gas Journal believes that the reserves in the Middle East are 65.7 per cent of total world reserves. "Explorers Horizons Broaden All Over the Free World," Oil and Gas Journal, LXIV (December 26, 1966), 64.

²Ibid.

³Ibid.

688 million barrels of oil during 1965, while the country's reserves increased 9 per cent.⁴ Table I shows the amount of reserves in the Middle East and North Africa.

TABLE I
TOTAL CRUDE OIL RESERVES BY COUNTRY IN
THE MIDDLE EAST AND NORTHERN AFRICA*

Country	1964 Reserves	1965 Reserves	1965 Per Cent of World
Abu Dhabi	6,500,000	7,500,000	2.1
Bahrain	250,000	250,000	0.1
Iran	37,000,000	40,000,000	11.0
Iraq	26,000,000	30,000,000	8.2
Israel	20,000	20,000
Kuwait	70,000,000	70,000,000	19.2
Neutral Zone	10,000,000	10,000,000	2.7
Qatar	3,750,000	3,800,000	1.0
Saudi Arabia	59,172,000	63,707,000	17.5
Syria	500,000	500,000	0.1
Turkey	550,000	500,000	0.1
Miscellaneous	1,000,000	2,000,000	0.5
Total Middle East	214,742,000	228,277,000	62.5
Algeria	6,000,000	6,300,000	1.7
Egypt	556,270	600,000	0.2
Libya	9,000,000	13,000,000	3.6
Morocco	11,000	10,000
Tunisia	40,000	250,000	0.1
Total Northern Africa	15,607,270	20,160,000	5.5
Total Middle East and Northern Africa	230,349,270	248,437,000	68.0
Total World	341,737,410	364,961,182	100.0

*"World Crude Oil Reserves Around 375 Billion Barrels," World Oil, (August 15, 1966), p. 93.

⁴Ibid.

The amount of oil in the Middle East is not known, and with the continued increase of reserves, it could be the richest oil region in the world for a long period of time. The companies which hold concessions are drilling wildcat wells in the proven inland areas as well as offshore sections; these companies continue to find more oil. The economic resources, namely oil and natural gas, are controlled by American companies or by companies from nations that are friendly to the United States. Should these Middle East resources fall into the hands of unfriendly governments, economic and political chaos could follow in a very short period of time. According to a report made by the Federal Trade Commission in 1952, there remains an international cartel which keeps the petroleum market organized.

If the political situation should change whereby the international cartel was removed from this very significant area, the possibility of a disorganized market would be a possible reality due to the vast reserves in the Middle East and due to the large quantities of oil being discovered throughout the world. There appears to have been a close cohesion between the operating companies regarding price, market, etc. Since the various American companies along with the British, Dutch, Italian, and Japanese companies

control the enormous reserves, the significance of the fair administration of price becomes a matter of equal importance with the continued influence of friendly interests.

The desires of American companies conflict with the announced goals of the Arab Nationalist Movement and the ambitions of the Russians. Europe obtains about one half of its crude oil from the Middle East.⁵ If this supply of oil was removed, there would be certain adjustments which would be necessary; the price would probably rise. However, a price rise would not be inevitable since cheap crude could be used as a political weapon to help governments friendly to those in power.

The most ardent exponent of Arab nationalism is Egyptian President Nasser. In 1965, the United Arab Republic had only .2 per cent of the world oil reserves and accounted for .4 per cent of the world production.⁶ However, there has been a discovery in the Egyptian desert which could make Egypt a larger producer. Phillips Petroleum Company has completed a well at 8,196 feet which geologists contend will produce

⁵Issawi, Charles and Mohammed Yeganeh, The Economics of Middle Eastern Oil, (New York, 1962), p. 18.

⁶"World Crude Oil Reserves," p. 93.

10,000 barrels of oil per day.⁷ Although the new discovery may be a factor of prime importance later, the present goal of President Nasser appears to be Yemen.⁸ With help from a friendly neighbor, Iraq, to threaten Kuwait and Saudi Arabia from the north, the United Arab Republic can threaten Kuwait and Saudi Arabia from the south.⁹ Although Iraq and the United Arab Republic have not nationalized their oil industry, a close ally, Syria, has nationalized its petroleum, and with a large area of the Middle East under control of President Nasser, there might be encouragement for an approach similar to the nationalization of the Suez Canal.

In the event that this area comes under control of the Russians or Arab Nationalists, many of the companies now producing oil would become vulnerable due to historical animosity. For many years, the companies that produced the oil did not share much of the profits with the local governments. As an example, from 1915 to 1957, Anglo-Iranian, the company producing all the oil from Iran during this period, realized a net profit of 613 million dollars and the Iranian

⁷Gibbon, Anthony, "Western Desert, Egypt Find May Open New Oil Province," World Oil, CLXIV (March, 1967), 69.

⁸Amery, Julian, "East of Suez up for Grabs," The Reporter, XXXV (December 1, 1966), 19.

⁹"World Crude Oil Reserves," p. 93.

government's income was 316 million dollars on a production of 333 million tons of oil valued at 3,350 million dollars.¹⁰ In other instances, there were indulgences on the part of absolute monarchs while the masses appeared to obtain no visible benefits from the oil income. An example of such injustice was Saudi Arabia, where King Saud enjoyed air-conditioned automobiles, a harem packed palace, and other luxuries while the nation continued to be one of the most impoverished in the world.¹¹

Revolutions have frightened the oil companies when they occurred in Iraq, Iran, Egypt, Yemen, and Syria. In Iran and Iraq, the oil cartel companies continued to obtain oil after making larger concessions and new agreements with the governments involved. New agreements with larger concessions may follow other revolutions due to the historical exploitation of oil resources by the oil companies and corruption by local governments.

However, the danger of more economic and political problems will not be reduced even if there is not an immediate change in the status of Middle East oil. With increasing

¹⁰O'Connor, Harvey, World Crisis in Oil (New York, 1962), p. 286.

¹¹Ibid.

reserves, there will be increasing pressure to market more oil, which could instigate price cuts below a level which would encourage price disorganization. Many countries are building their own refineries to encourage such a price problem:

New refineries are rising in every developing country, needed or not, for a local refinery which a local government can use to force down the landed price of crude is a paying proposition to the local government even if, on a world view, a waste of resources.¹²

While the local governments are building refineries, more sources of oil are being found, and other sources of energy are being developed; the Middle East governments are demanding an increase in their royalties. Whether higher royalties are warranted or whether royalty increases are economically sound has alarmed at least one writer. The business-oriented Wall Street Journal asserts:

The rise in royalties would come at a time when an oil glut hangs over the world petroleum market. Although oil consumption is increasing at an 8% annual rate, reserves are rising faster. Production has increased 11% with the addition of Lybia.

But London Oil Company officials assert that the correct market conditions can not even support present postings, let alone higher prices, while discounts from posted prices vary according to negotiating power, sometimes forty to forty-five cents a barrel.¹³

¹²Adelman, M. A., "Efficiency of Resource Use in Petroleum," Southern Economic Journal, XXI (October, 1964), 110.

¹³Wall Street Journal, August 6, 1965, p. 6

These remarks could indicate that the companies will refuse to increase the royalty payments, or else they will lower production. Such a move could be quite harmful to the Middle East countries, since oil is the only income of significance; this situation was caused by failure to develop other sources of income. This contrasts to some Western nations such as the United States and Mexico, who have used their own oil as an energy source for industrialization. Single-industry nations have found that reliance on one industry is dangerous when competition from other nations becomes important. In the case of oil in the Middle East, the situation is even more serious due to the control by a cartel which possesses other sources of oil. The American companies have vast resources in the United States as well as in South America and in Canada.

Control by cartel companies, nationalism in local governments, and a world oil glut are enough to make a complex economic situation; however, approaching soon, is a new energy source that may be as significant as oil. The ability of technology to produce atomic energy at an extremely low price seems to be a possibility in the near future. An all-nuclear navy by 1975 is an announced goal by the United

States.¹⁴ In addition, the transportation uses of oil and gasoline may not always be the exclusive ownership of oil companies. Sam Schurr has speculated on some changes in transportation:

In view of the crucial part played by mineral fuels in the past in making possible significant changes in transportation--coal in the rise of the railroads, oil in the development of automotive transport--it may be that at some date in the distant future nuclear fuels will be looked back upon as an energy source without which the revolutionary transportation system of the space age would have been impossible.¹⁵

At this time, the principal uses of atomic energy have been through the production of electric power. A desalting and electric power plant will soon be constructed in the Los Angeles, California, area. At a cost of \$390,000,000, it is proposed to produce 150 million gallons of fresh water daily along with 1,800 megawatts of electric power.¹⁶ If the Los Angeles development at the proposed price is successful, other uses for atomic energy could reduce the need for petroleum products. To an oil-oriented economy such as the Middle East, this type of development could create serious consequences;

¹⁴Schurr, Sam H. and Bruce C. Netschert, Energy in the American Economy (Baltimore, 1960), p. 23.

¹⁵Ibid.

¹⁶"Nuclear Fueled Desalting Power Plant Planned," Science News, XC (August, 1966), 130.

however, the oil companies seem to be more resourceful. Cities Service has entered the atomic energy field by purchasing United Nuclear Company. United Nuclear is the largest private supplier of nuclear fuel and is a fabricator of uranium products.¹⁷

There have been some indications that coal could provide a significant challenger to oil in an emergency. Inferior grades, small in size, with a high ash, water, and usually sulphur content, will conceivably become more widely used than at the present time.¹⁸ If the price should be reduced, coal could maintain the amount of usage now existent, but the long-run increase in coal consumption, as an energy source, should not be a factor in Middle East development.¹⁹ Other than atomic energy, the principal competitors to Middle East oil will possibly be shale oil and new sources of oil such as offshore reserves.

Discovery of oil in the Middle East did not have an immediate effect on the oil industry or other energy industries. However, the impact had significant economic changes

¹⁷"Where Cities Service's Heading," Oil and Gas Journal, LXIV (August 1, 1966), 95.

¹⁸Leeman, Wayne A., The Price of Middle East Oil (Ithaca, 1962), p. 50.

¹⁹Ibid., p. 51.

due to the discovery of a large pool of oil at a time when many feared an oil shortage. Prior to the Middle East discovery, the geographic oil area was mostly in the United States, along with certain producing countries in Eastern Europe and South America. After the amount of reserves was identified in Iran, Iraq, and Saudi Arabia, the entire industry found that the problem was no longer one of oil shortage, but one of oil surplus. Whereas British and Dutch interests had searched the entire world for oil in an attempt to compete with American oil companies, a source was now found by them which would be larger than the reserves in the United States.²⁰ From the pools in Indonesia, Rumania, Russia, and the United States had come such vast and rich fields that only a world organization could find markets. The impact was so great that the seven large oil companies formed a cartel in 1928.

The agreement made in Achnacarry, Scotland, concerned the development in the Middle East; this meeting stopped price competition between the major companies for all practical purposes. It is possible that some agreement would have been made had there been no large reserve in the Middle East; however, it was this development of oil in the Middle

²⁰O'Connor, World Crisis in Oil, p. 280.

East that acted as the catalyst which brought together these concentrations of wealth. In fact, the possibility persists that United States companies would not have become involved in foreign development; the Federal Trade Commission viewed other factors:

There were four elements that encouraged American participation in foreign oil. In the early twenties, it was thought there would be an oil shortage in the U. S. This was after World War I and before the large East Texas field was discovered . . . the high cost of mineral rights in the U. S. since land owners had title to the mineral rights . . . discovery of foreign reserves in India, Dutch East Indies, Rumania, and Iran . . . fear of foreign competition.²¹

As important as the development of the Middle East was to the oil industry, it was more important to the kingdoms, protectorates, and nations of the area. This area was regarded as mostly waste land, with illiterate, nomadic natives who had no natural resources and hardly any industry. Within a decade, the Middle East became the most important region for military energy, and within twenty years, it was thought to be necessary for European recovery, and within thirty years, had become the source for over half of all oil consumed in Europe.

²¹U. S. Senate, Select Committee on Small Business, The International Petroleum Cartel, Staff Report to the Federal Trade Commission (Washington, 1952), pp. 39-40.

If an analysis of current problems of oil in the Middle East is to be possible, it is necessary to study the development of oil by country.

CHAPTER II

EARLY DEVELOPMENT

The development of oil in the Middle East began in Persia, today known as Iran. Large-scale development began when the Anglo-Persian Oil Company obtained the concession from the D'Arcy Oil Company. In 1927, Iraq Petroleum Company was formed after substantial amounts of oil were discovered in Iraq. In 1933, Standard Oil Company of California obtained a sixty year concession in Saudi Arabia; in 1936, Kuwait Oil Company discovered oil in the small country of Kuwait; this latter discovery proved to be one of the largest reserves ever found.

Most of the large fields had been discovered by 1936, and the cartel had been operating together for eight years. By 1949, the seven international petroleum companies owned 82 per cent of all known reserves.¹ Table II indicates the concessions by country of the major oil companies. Outside the United States, Mexico, and Russia, these seven companies, in 1949, controlled approximately 92 per cent of the estimated oil reserves.² Dependence upon these companies and upon the

¹The International Petroleum Cartel, p. 23.

²Ibid.

TABLE II

MAJOR OIL COMPANIES OPERATING IN THE MIDDLE EAST*

Major Company	Operating Company	Per cent of Ownership	Countries
Standard Oil Co. of New Jersey	Iranian Oil Participants, Ltd.	7.0	Onshore Iran
	Iraq Petroleum Co., Ltd.	11.875	Onshore Iraq Onshore Qatar
	Arabian American Oil Co.	30.0	Onshore Saudi Arabia
The Texas Co.	Iranian Oil Participants	7.0	Onshore Iran
	Arabian American Oil Co.	30.0	Onshore Saudi Arabia
British Petroleum Co.	Iranian Oil Participants	40.0	Onshore Iran
	Iraq Petroleum Co., Ltd.	23.75	Onshore Iraq Onshore Qatar
	Kuwait Oil Co.	50.0	All Kuwait
Royal Dutch-Shell Group	Iranian Oil Participants	14.0	Onshore Iran
	Iraq Petroleum Co., Ltd.	23.75	Onshore Iraq Onshore Qatar
	Shell of Qatar	100.0	Offshore Qatar
Compagnie Française Petroleum	Iranian Oil Participants	6.0	Onshore Iran
	Iraq Petroleum Co., Inc.	11.875	Onshore Iraq
Gulf Oil Corp.	Iranian Oil Participants	7.0	Onshore Iraq
	Kuwait Oil Co.	50.0	All Kuwait
Socony Mobil Oil Co.	Iranian Oil Participants	7.0	Onshore Iran
	Iraq Petroleum Co., Inc.	11.875	Onshore Iraq
	Arabian American Oil Co.	10.0	Onshore Saudi Arabia
Standard Oil Co. of Calif.	Iranian Oil Participants	7.0	Onshore Iran
	Arabian American Oil Co.	30.0	Onshore Saudi Arabia

TABLE II--Continued

Major Company	Operating Company	Per cent of Ownership	Countries
GIP Minería Co. (Italian)	Soceitá Irano-Italian	50.0	Offshore Iraq
Standard Oil Co. of Indiana	Iran Pan American Oil Co.	50.0	Offshore Iraq

*Source, Issawi, Charles and Mohammed Yeganeh, The Economics of Middle Eastern Oil, (New York, 1962), pp. 175-181.

Middle East reserves had become, by 1955, so great that the Mutual Security Administration estimated that a 25 cent rise in the price of crude would cost Europe 122 million dollars a year;³ also, the London Economist countered that the cost to Europe would be 130 million dollars in local currencies and 50 million in dollars.⁴

Iran

Lord Curzon obtained the first concession for oil from the Czar of Russia in 1872. This concession covered the area now known as Iran. This concession was to last for a period of time spanning seventy years.⁵ After spending 500 million dollars and after having no success, Curzon abandoned the

³O'Connor, Harvey, The Empire of Oil (New York, 1955), p. 302.

⁴Ibid.

⁵O'Connor, World Crisis in Oil, p. 278.

area and the concession. After this unfortunate incident, the D'Arcy Company obtained a concession, due to the faith of the developer in this area. The concession was granted on May 28, 1901, and was for a period of sixty years.⁶ Drilling under the concession started in 1902, and following the discovery of oil on a commercial scale in 1908, the Anglo-Persian Oil Company, with a capital of two million pounds, was formed in 1909.⁷

The royalty to the nation was based upon a rate of sixteen per cent of Anglo-Persian net profit. This rate was somewhat arbitrary, insofar as it reflected the expectations and bargaining positions of the two parties at the time of negotiations. Thus, a rate fixed for a long period of time, and without regard to return on capital, could prove detrimental to either of the two parties concerned. The company would benefit if the returns were below what the actual or potential investors considered a reasonable amount; the Persian Government would benefit if the returns were excessive. In addition to the 84 per cent of the profits, the D'Arcy Company was given exclusive right to exploit hydrocarbons over a vast area of 500,000 square miles and the

⁶Ibid.

⁷Issawi, p. 26.

exclusive right to lay pipelines in the concession.⁸ The economic significance of the concession enabled the D'Arcy Company to be the sole prospector for oil in this huge area; it also rendered exploitation of any other concession by other companies dependent upon the D'Arcy Company's good will for outlets on the Persian Gulf.

After four years, D'Arcy's private resources were greatly strained. At the instigation of the British Government, the Burma Oil Company, Limited, was persuaded to purchase an interest. On May 26, 1908, oil was discovered in commercial quantities at Masjid-i-sulaiman in southwest Persia, and on April 15, 1909, the Anglo-Persian Oil Company, Limited, was established with the objective of assuming the D'Arcy concession.⁹

The British Government purchased a controlling interest in Anglo-Persian in 1914.¹⁰ By this time, the use of oil for naval purposes had become common, and the British wanted to keep the area under their control. After several years of claims of exploitation by the Iranian Government, matched by

⁸Mikdashy, Zuhayr, A Financial Analysis of Middle Eastern Oil Concessions: 1901-65 (London, 1966), p. 14.

⁹Ibid., p. 15.

¹⁰O'Connor, World Crisis in Oil, p. 278.

denials by the company, a new agreement was concluded in 1933. The Iranian Government was demanding an adjustment, since royalty payments dropped 75 per cent in 1931. Although Anglo-Persian volume had remained steady in 1931, the company suffered reduced net profits due to a cut in prices general for all the industry. However, the net profits fell 37 per cent while royalty payments dropped 75 per cent.¹¹

In 1920, an agreement between Persia and Anglo-Persian brought the latter affiliate companies under royalty commitments; this agreement came after Persia had concluded that some of the profits from the oil were being taken by affiliates which did not pay the 16 per cent royalty. The agreement rendered the Persian Government's revenues more sensitive to a decline in Anglo-Persian's income, to the extent the government was to share in the profits of some affiliates after certain fixed deductions were made.¹² Thus, during a depression year like that of 1931, the Persian Government was left with hardly any amount to share in Anglo-Persian's income from its affiliates, once the fixed deductions were made; the net effect of this situation was a larger decline in Persia's revenues compared with Anglo-Persian's net profits.

¹¹Mikdashi, p. 74.

¹²Ibid.

The new agreement of 1933 based royalty on a per ton basis; also, the price was safeguarded against devaluation of gold by Great Britain. A minimum of 750,000 pounds was set as guaranteed royalty, and it provided a clause for Persia to receive a sum equivalent to twenty per cent of the distribution to ordinary stockholders in excess of 671,280 pounds.¹³

The British Government, through ownership of Anglo-Persian, later changed to Anglo-Iranian, maintained control of the vast reserves in Iran until a revolution in 1951. Nationalism spread in Iran through the leadership of Premier Mossadegh. Not only was the objection to the amount of revenue received by the government apparent, but there was an apparent dissatisfaction with the predominance of a major British interest in the country.¹⁴ A general trend to even profit sharing between companies and countries had begun, and although Anglo-Iranian had offered to negotiate a new agreement, when Doctor Mossadegh assumed power in 1951, he nationalized the oil industry the same year.¹⁵

The Mossadegh Government was overthrown on August 9, 1953, with most observers concluding that nationalization

¹³Ibid., p. 76

¹⁴Ibid., p. 155.

¹⁵O'Connor, World Crisis in Oil, p. 293.

had failed.¹⁶ A problem which Iran found during the interim was a lack of buyers. Iran's attempt to nationalize and operate her oil industry was not successful because nationalization could not be carried out without Anglo-Iranian's approval, and buyers were accordingly not certain they could obtain legal title to the oil.¹⁷ With this development, Standard Oil Company of New Jersey succeeded in obtaining a part of the vast reserves of Iran; Jersey Standard had been trying to get production in Iran since the early days when the British were obtaining control through the D'Arcy interests.¹⁸

Contracts were established between the new Iranian Government and a consortium of the eight major oil companies of the world composed of Anglo-Iranian, with an interest of 40 per cent, Jersey Standard, Socony Oil Company, the Texas Company, Gulf Corporation, and Standard Oil Company of California, with an interest of 8 per cent, and Campagnie Française des Pétroles, the French National Oil Company, with an interest of 6 per cent.¹⁹ A group of nine American independent companies received a total of 5 per cent by deduction of one-eighth interest of the five American major companies.²⁰

¹⁶Ibid.

¹⁷Mikdashi, p. 156.

¹⁸O'Connor, World Crisis in Oil, p. 293.

¹⁹Mikdashi, p. 156.

²⁰O'Connor, World Crisis in Oil, p. 293.

It appears that Iran did not receive fair treatment since the nation was militarily weak and economically underdeveloped. The evidence appears to justify the attempt at nationalization as an action to permit the Iranian Government to have more control over their own resources. Since Anglo-Iranian Oil Company, as a British company, appeared to push for immediate profits without foresight to the consequences of their actions, a revolt was imminent. With British military power protecting the oil company, many pleas for better returns were not heeded.

Iraq

On March 24, 1914, an agreement was reached between British, German and Dutch interests to form the Turkish Petroleum Company, Limited. The shares were allotted allowing Anglo-Persian 50 per cent, Royal Dutch-Shell 25 per cent, and Deutsche Bank 25 per cent. C. S. Gulbenkian, who was instrumental in bringing the negotiations to a successful conclusion, was to receive a 5 per cent beneficiary interest contributed equally by Anglo-Persian and Royal Dutch-Shell out of their respective holdings.²¹ American companies were urged by the United States government to develop adequate reserves abroad to supplement what appeared at the time to be a dwindling

²¹Mikdashi, p. 67.

supply at home.²² Out of this desire and out of the defeat of Germany in World War I, pressure came to permit entrance of American companies into Iraq. This was achieved in 1925, allowing 23.75 per cent ownership to British, French, Dutch, and American companies with the remaining 5 per cent ownership going to Gulbenkian.²³

Turkish Petroleum Company obtained an exclusive concession for Iraq on March 17, 1925. The concession was to run for 75 years and cover 192 square miles to be selected by the company. Drilling was started in April, 1927, and oil was discovered near Kirkuk, in October, 1927.²⁴ The first well was 1,521 feet deep and produced 90,000 barrels of oil a day.²⁵ The discovery of such a rich field in addition to the large reserves already known encouraged agreement by the large companies. This was brought about when those who were members of the Turkish Petroleum Company met and concluded what was to be known as the "Red-Line Agreement" of 1928. This agreement restricted the members from competing with each other and Turkish Petroleum

²²International Petroleum Cartel, pp. 38-44.

²³Mikdashi, p. 71.

²⁴Issawi, p. 30.

²⁵O'Connor, World Crisis in Oil, p. 308.

for concessions in an area which included most of the Ottoman Empire.²⁶ According to the International Petroleum Cartel,

This agreement is an outstanding example of a restrictive combination for the control of a large portion of the world's oil supply by a group of companies which together dominate the world market for this commodity.²⁷

A defined area comprising most of the old Ottoman Empire was outlined in red on a map and attached to the purchase contract and, with some exceptions that proved unimportant in practice, the owners of Turkish Petroleum agreed that the company alone might hold concessions in this area; they agreed that the owners of Turkish Petroleum as well as their subsidiaries were not to be interested, directly or indirectly, in the production or purchase of oil in the area except through Turkish Petroleum.²⁸ The agreement was termed a brotherhood of oil merchants, and the production, offering, dividing, and selling of crude oil was carried on by Turkish Petroleum at a price to cover only its cost. Hence company profits accrued to the partners, not Turkish Petroleum. Each of the owners, or partners, was under contract and bound to see that any

²⁶International Petroleum Cartel, p. 110.

²⁷Ibid., p. 111.

²⁸Ibid., p. 66.

associated company, controlled directly or indirectly, observed the agreement.²⁹

The agreement was signed at Achnacarry castle in northern Scotland. The Castle was owned by Sir Henri Deterding of Royal Dutch-Shell, and Deterding invited Sir John Cadmen of Anglo-Iranian, and Walter C. Teagle of Standard Oil Company of New Jersey. Although the stated purpose of the meeting was to shoot grouse, the result was a division of oil resources by the three largest oil companies.³⁰

The agreement provided for the status quo of 1928 to be maintained by the three companies, for existing facilities to be made available to all three producers to prevent duplication of such facilities, for prices to remain the same at all points providing an advantage to those nearest production, and for surplus production to be offered in other areas at prices not less than the prevailing price in such markets.³¹ This was a blueprint for the international petroleum cartel; this was the outline of basic principles under which the partners could profit in their brotherly exploitation of the world's oil resources.

²⁹Ibid., p. 65.

³⁰Ibid., p. 199.

³¹Ibid., p. 200.

Basically, the partners agreed to price their oil at Texas Gulf quotations. As United States production costs were the highest in the world, this satisfied all partners.³² The British firm profited from the abnormal price level on their low cost Iranian and Iraqi crude, and the United States firms received a large profit on their foreign production.

Prior to the signing of this agreement, there had been visible signs of competition between Standard Oil Company of New Jersey and Royal Dutch-Shell for concessions and markets. European markets were of competitive significance to both companies as well as competition for concessions in the Middle East. However, after the Red-Line Agreement of 1928, competition has not been evident.³³ Discovery of oil in Iraq appeared to act as the catalyst which led the world's large oil companies to form a cartel.

Under the first agreement with Iraq in 1925, the royalty was established at four shillings per ton. There was no change in the rate of royalty until 1952, when Iraq Petroleum Company,

³²O'Connor, The Empire of Oil, p. 278.

³³Perkins, John Emmit, "The Workability of Monopoly in the Oil Industry," unpublished master's thesis, School of Arts and Sciences, North Texas State University, Denton, Texas, 1949, IV, 59.

the company name having been changed from Turkish Petroleum Company in 1929, agreed to meet the royalty rate given other producing countries, which was 50 per cent of company profits.³⁴ The new agreement provided for an equal sharing of profits, for a guarantee of greatly increased oil production, and for a supply of crude oil at cost to a government refinery; the latter was built to meet local consumption. The agreement fixed oil prices at Iraqi borders, which for the oil flowing to the Mediterranean Sea were substantially lower than posted prices at sea terminals minus pipeline costs, and allowed considerable discounts from posted prices to purchases of Iraqi oil.³⁵

After a revolution in 1957, the government of Iraq and Iraq Petroleum Company began a confrontation over several matters. In the 1952 agreement "fixed costs" per ton were added for 1951 and 1952, along with a "fixed" amount thereafter in determining profits for the Iraq income tax. If actual costs for any year were found to differ from "fixed costs" by more than ten per cent, actual costs were to apply. The matter became sensitive when the company, Iraq Petroleum, included destruction of company pipelines and pump stations

³⁴O'Connor, World Crisis in Oil, p. 309.

³⁵Issawi, p. 31.

in Syria, in 1956, as part of "fixed costs."³⁶ The Iraqi Government objected, in 1957, to these additions as costs, and 1958, the company paid the difference between the actual cost as determined by the company and the 10 per cent in the agreement.

Another dispute arose due to Iraq Petroleum deducting exploration expenses in the beginning of commercial oil production. The company had determined these expenses to be capital expenditures, and their amortization was charged to production costs. The Iraqi Government objected, in 1957, to these amortization charges, which diminished the divisible profit and, consequently, the government's share. Eventually, late in 1961, the companies agreed to suspend deduction of amortization charges until the matter could be arbitrated.³⁷

The Iraqi Government also questioned the propriety of considering grants made by Iraq Petroleum as deductible expenses. The government objected to this deduction because these grants were made by and on behalf of the company as part of its public relations campaign. The government did not want half of this expense to be from its recoverable share, particularly since the company had not consulted the government in regard to this expense. Other complaints by

³⁶Midkashi, p. 197.

³⁷Ibid., p. 198.

the Iraqi Government concerned the proportion of London office expenses to be accounted for as production costs, the accounting for expenditures on information and public relations, and the accounting treatment of drilling and exploration expense. Regarding the last item, the Iraqi Government wanted all exploration and drilling expenses to be capitalized and amortized at the rate of 5 per cent per annum. The company, late in 1961, declared itself willing to adopt the procedure which the government preferred.³⁸

The trend in Iraq is much the same as in other Middle East nations. The local governments have begun to realize that they can bargain from a position of power. Perhaps, the leaders of Iraq, in the late fifties, read the International Petroleum Cartel, which quoted a confidential French document:

The incorporation of Iraq Petroleum Company and the execution of the red-line agreement marked the beginning of a long term plan for the world control and distribution of oil in the Near East. Iraq Petroleum Company was so operated as to avoid any publicity which might jeopardize the long term plan or the private interests of the group.³⁹

The cartel might control the distribution and control the world oil price, but it now faced a determined local government with which it had to contend.

³⁸Ibid.

³⁹International Petroleum Cartel, p. 112.

Saudi Arabia

While Iraq development began in 1914, Saudi Arabian development began to take shape in 1923, when the Eastern and General Syndicate, Limited, secured oil exploration rights covering the province of al-Hasa; however, since these rights were not exercised, the concession was canceled four years later.⁴⁰ The interest of Iraq Petroleum Company members and Standard Oil Company of California was attracted by the discovery of oil in Bahrein in 1932, because of the nearness to Saudi Arabia.

In the competition that followed, Standard Oil Company of California outbid Iraq Petroleum by a relatively small sum and won an exclusive concession in eastern Saudi Arabia on May 29, 1933. The agreement, to run for 66 years, covered an area of 300,000 square miles, and included preferential right to additional concessions in Central and Western Najd.⁴¹ Standard Oil Company of California obtained the concession by offering King Ibn Saud immediate payment in gold as he demanded.⁴² Standard's success was significant internationally inasmuch as it introduced a new company into the area

⁴⁰Issawi, p. 33.

⁴¹International Petroleum Cartel, p. 114.

⁴²Lenczowski, George, Oil and State in the Middle East (Ithaca, 1960), p. 17.

lying within the boundary of the Red-Line Agreement. Thus, an American corporation not belonging to the Iraq Petroleum group penetrated a region which was assumed to be safely in Iraq Petroleum control.

Actual operations were carried on by the California Arabian Standard Oil Company, a subsidiary of Standard Oil Company of California. In 1936, the Texas Company acquired a half interest in the venture, thereby increasing the number of American corporations acting within the Red Line area. At this time, the operating company's name was changed to Arabian American Oil Company.⁴³ Three million dollars in cash and eighteen million dollars in deferred payments were paid by the Texas Company from future oil production of Saudi Arabia.⁴⁴

Territory of the concession was substantially extended by a new agreement in 1939, and oil, first discovered in 1933, began to be produced in increasing quantities.⁴⁵ Wayne A. Leeman in The Price of Middle East Oil wrote:

Many of the oil men involved in the formation of Caltex probably viewed it as a simple business arrangement (an arrangement which, to be sure, had the consequence of reducing competition below what it might have been). Standard of California had oil production, and the

⁴³Ibid.

⁴⁴Issawi, p. 33.

⁴⁵Lenczowski, p. 17.

Texas Company marketing facilities; the merger of these properties was extremely economical vertical integration enabling Standard to avoid the duplication of Texas Company marketing installations and providing, through deliveries from the Middle East instead of from the United States, important economies in transport.⁴⁶

However, the Federal Trade Commission Report suggested, without explicitly saying so, that the agreement between Standard Oil Company of California and the Texas Company represented a significant development in the formation of the world oil cartel. The report further points out that Standard Oil Company of California had discussed earlier with Royal Dutch-Shell, Jersey Standard, and Anglo-Iranian, the problem of disposing of Middle Eastern surpluses.⁴⁷

Leonard M. Fanning discussed the action of the United States Government in attempting to prosecute executives of companies in the world oil cartel as being unfair:

Nor does the discussion touch on the obvious question as to the unfairness of entering civil and especially grand jury action against American companies which, when called upon, were in a position to render vital service to their country in time of emergency and did so.⁴⁸

The period to which Fanning refers is during World War II, and Arabian American Oil Company, during this same period,

⁴⁶Leeman, p. 157.

⁴⁷International Petroleum Cartel, p. 118.

⁴⁸Fanning, Leonard M., Foreign Oil and the Free World (New York, 1954), p. 235.

persuaded the American Government to begin paying King Saud foreign aid in the amount that the company was paying as royalty advance. As a consequence, Congress attempted to pass a statute giving the American Government control of the Arabian American pipeline facilities. The company successfully prevented the statute from passing Congress, and Arabian American obtained the ultimate in economic advantage; the American Government paid the royalty advance as foreign aid and the company did not lose any of their control of their Middle East facilities.⁴⁹ Perhaps, if Fanning had examined the issue of American funds paying Arabian American's advance royalties without any control, the motives of the executives of Arabian American could be construed as means of obtaining subsidies for the company rather than as a means of rendering vital service.

The relationship of Arabian American with the United States Government came under scrutiny in 1957, when the Senate Finance Committee became interested in the exemption of the company from the American income tax. The Committee developed that the company, despite its staggering earnings, paid little or nothing to the United States Treasury; the

⁴⁹O'Connor, World Crisis in Oil, p. 329.

tax paid by Arabian American to the Saudi government was 52 per cent; such foreign taxes are ruled as tax credits against United States income taxes; therefore, the 52 per cent corporate maximum was reversed by the 52 per cent paid the Saudi government, making it tax free. The 280 million dollars net revenue, in 1956, afforded not a penny to the government which was not only maintaining the Sixth Fleet in the eastern Mediterranean, but also the Dhahran Airbase, while at the same time it was pouring in arms and instruction to the Saudi army to protect Arabian American installations.⁵⁰

In December, 1948, Standard Oil Company of New Jersey and Socony-Vacuum purchased an interest in Arabian American. Jersey Standard received a 30 per cent interest for 76.5 million dollars, and Socony received 10 per cent for 25.5 million dollars. An unannounced amount was to be paid from dividends until an amount of 450 million dollars was paid by the two companies.⁵¹ The Federal Trade Commission Report concluded about the purchase:

The owners of Aramco (Standard of California and the Texas Company) were apparently faced with the choice of either forcing their way by competitive means into markets which, before the war, had been closed to them because of international cartel arrangements, i.e., the 'as is position,' or permitting companies which did have outlets and positions in areas west of Suez to acquire a proprietary interest in Aramco . . .

⁵⁰Ibid., p. 333.

⁵¹Issawi, p. 34.

The international oil companies decided to take the latter course of action. Texas and Standard of California would obtain additional markets for Aramco without having to compete for them, while Jersey and Socony, with their world-wide interests, could distribute their shares of Aramco's output, with the result that world prices and markets would not be disturbed.⁵²

Prior to the purchase by Standard Oil Company of New Jersey and Socony-Vacuum, Aramco would not sell in areas west of the Suez.⁵³

In the royalty agreement with King Saud, Aramco had obtained the right to deduct the amount of American income tax as an expense before computing the Saudi tax. In 1949, the American Government received more money from Saudi oil than did King Saud; however, in 1950, the Bureau of Internal Revenue ruled that foreign taxes could be deducted as a credit on the American income tax. The company persuaded King Saud to enact an income tax based on an even split in profits rather than royalty, thereby relieving Aramco from paying an income tax in the United States.⁵⁴ As with the relationship with the United States Government during World War II, the company increased income at the expense of the government. If the early history of Iran is one of exploitation at the expense

⁵²International Petroleum Cartel, p. 121.

⁵³Ibid., p. 122.

⁵⁴O'Connor, World Crisis in Oil, p. 333.

of the Iranian government, the early history of Saudi Arabia is exploitation at the expense of the United States government.

Kuwait

In 1928, Gulf Oil Corporation, acting through the Eastern and General Syndicate, sought a concession in Kuwait, from which it was not debarred since the territory lay outside the "Red-Line" area. However, the Anglo-Persian Oil Company also put in an application and, after the two competitors had enlisted the support of their respective governments, a compromise was reached in 1933; this was followed by the granting of a concession on December 23, 1934, to the Kuwait Oil Company, a company with a capital of 200,000 pounds equally owned by Gulf Oil Corporation and the Anglo-Persian Oil Company.⁵⁵ Neither party was to dispose of its interest without the consent of the other, and each would abstain from action damaging to the other's marketing position. Oil would be produced to an extent demanded by either, Anglo-Persian being allowed, if it wished, to substitute Iranian for Kuwaiti oil in fulfillment of its sales contracts.⁵⁶

⁵⁵Issawi, p. 34.

⁵⁶Longrigg, Stephen H., Oil in the Middle East (London, 1955), p. 111.

Drilling began in 1936, and the discovery proved to be the largest field and the cheapest oil in the world. The first well was drilled to a depth of 3,500 feet, and the field provided a minimal cost of ten cents a barrel with a gravity pipeline flow of fifteen miles to the gulf.⁵⁷ In May, 1947, Gulf Oil Corporation, acting through a subsidiary, entered into a long term contract with Shell Petroleum Company, Limited. Gulf agreed to sell to Shell over a period of years a considerable part of its share of Kuwait oil. Originally, deliveries were to be through December 31; later, the agreement was extended to December 31, 1960, and beyond; the agreement now runs to the year 2026.⁵⁸ Rather than sell the oil outright to Shell at a stated price, Gulf agreed to share equally with Shell the total profits on the production, transportation, refining, and marketing of this crude. When an estimate of Shell's total receipts for the oil is subtracted from an estimate of Shell's costs of transporting, refining, and marketing, it is the same as an estimate of Gulf's cost of producing it. The resulting annual profit, or loss, is shared equally by Gulf and Shell.⁵⁹

⁵⁷O'Connor, World Crisis in Oil, p. 352.

⁵⁸International Petroleum Cartel, p. 138.

⁵⁹Ibid., p. 139.

The agreement between Gulf and Shell reduced the incentive for Gulf to compete with Shell within the territories in which the contract assumes the oil will be sold. If Gulf invades these areas, it will have to subtract from any gains it makes one half of the reduction in profits which the Gulf-Shell partnership in production and distribution suffers as a consequence. The contract not only protects Shell in many markets from the competition of Gulf, but it also gives the Anglo-Iranian Oil Company considerable protection. Since Anglo-Iranian and Shell have joint marketing arrangements in many of the areas covered by the agreement, the profit sharing arrangements, which discourage Gulf from entering some markets served by Shell, act to protect the trading position of Anglo-Iranian in areas where it is a Shell associate.⁶⁰ If this transaction was not part of a cartel arrangement, it is an unusual agreement since Gulf will sell crude oil for a long period at a disadvantage to their own marketing position.

From the original agreement in which Kuwait obtained nine cents per barrel for oil, the Kuwait royalty rate has increased considerably since 1934. The royalty was increased to fifty per cent of the company profit in 1951.⁶¹ In 1951,

⁶⁰Ibid., p. 144.

⁶¹O'Connor, World Crisis in Oil, p. 352.

oil revenues from Kuwait Oil Company were eighteen million dollars; within fourteen years, revenues rose by over twenty-eight times.⁶² The causes of this significant rise in oil revenues were the introduction of profit sharing arrangements in December, 1951, the increase in oil exports, and the increase in oil prices used in computing income tax.⁶³

Other Middle East Countries

In September, 1932, the Anglo-Persian Oil Company obtained a license from the Sheikh of Qatar for a geological survey of the peninsula. In view of its obligations under the "Red-Line Agreement," the Anglo-Persian Oil Company agreed to act in Qatar as the nominee of the Iraq Petroleum Company. On May 17, 1935, it obtained a 75-year exclusive oil concession, which covered 4,100 square miles. Subsequently, Iraq Petroleum formed Petroleum Developments, Limited, and on February 5, 1937, took over the Anglo-Persian Oil Company concession.⁶⁴ Drilling began in October, 1938, and resulted in the discovery of the Dukhan oil field in December, 1939; however, because of the outbreak of World War II and slow progress in development, exports did not start until December, 1949.

⁶³Ibid., p. 219.

⁶⁴International Petroleum Cartel, p. 88.

The company was renamed Qatar Petroleum Company, Limited, in 1953.⁶⁵

Another concession was granted, in 1949, by the Sheikh of Qatar to the international Marine Oil Company, which was owned by Superior Oil Company and Central Mining and Investment Corporation. The concession covered the offshore region beyond a three mile limit. This concession was relinquished in 1951 to Shell for a 75-year period.⁶⁶

The leaders of Saudi Arabia and Kuwait granted an exploration concession in the Neutral Zone in 1924. However, the option was allowed to lapse, and in 1946, Kuwait invited bids for concessions. In 1948, the American Independent Oil Company obtained exclusive rights for Kuwait's undivided half interest for sixty years. The American Independent Oil Company consists of ten companies, none of which are among the major companies.⁶⁷ After drilling began in 1949, the company spent nearly forty million dollars before discovering oil in March, 1953.⁶⁸

In 1949, Getty Oil Company obtained a sixty-year concession covering Saudi Arabia's undivided half interest in the Neutral Zone.⁶⁹ The offshore concession for both Kuwaiti

⁶⁵Issawi, p. 37.

⁶⁶Longrigg, p. 216.

⁶⁷Issawi, p. 37.

⁶⁸Ibid., p. 38.

⁶⁹Ibid.

and Saudi undivided interest is owned by the Japan Petroleum Trading Company. The concession was signed with Saudi Arabia on December 10, 1957, and with Kuwait on July 5, 1958; the concession is for forty years.⁷⁰

In other areas, the Bahrein oil fields are the oldest. This area was developed by Standard Oil Company of California and the Texas Company similarly to the development of Saudi Arabia. Oil was first commercially produced in 1932, and the island has a unique situation since Great Britain has political control and an American company produces all the oil.⁷¹

Oil was discovered in Libya in December, 1957, by a Jersey Standard affiliate, Esso Standard, Incorporated.⁷² In December, 1966, Oil and Gas Journal estimated that the known reserves in Libya were 20,000,000,000 barrels of oil, and 1966 production was 20.8 per cent above 1965; the 1966 production was estimated at 1,472,100 barrels.⁷³ Due to the position of the Libyan oil fields, the transportation of the oil is simple movement by pipeline to the Mediterranean Sea on the Libyan coast. Due to the large reserves,

⁷⁰Lenczowski, p. 22. ⁷¹Ibid., p. 21. ⁷²Ibid., p. 23.

⁷³"Explorers Horizons Broaden All Over the Free World," p. 64.

the recent ascendance of Libya as a major oil producing country makes the Middle East appear even more significant as a source of world energy.

Thus, the development of oil in the Middle East began with company exploitation in Iran. From this early beginning, an international cartel developed through the "Red-Line Agreement" due to the discovery of oil in Iraq. United States companies developed Saudi Arabia and Kuwait and entered the cartel. The twenties were the first years of production during a period of assumed oil shortage; the thirties were years of surplus and development of the cartel; the forties were years of war and oil shortage; the fifties were years of discovery of vast new reserves such as Libya, Neutral Zone, and the new fields in Iran, Iraq, Kuwait, and Saudi Arabia. The sixties are facing new problems such as an oil surplus, Arab Nationalism, and a possible disorganization of the world market.

CHAPTER III

TRANSPORTATION

For the oil to be of any economic advantage, means had to be devised for transporting it to the retail markets. In the early years of petroleum development, when smaller quantities of oil products were involved, oil was stored and transported in cans and barrels. However, the rapid expansion of production and the development of bulk trading necessitated the devising of transportation facilities that would be more efficient, speedy, and economical. As a result, specialized means of transport were developed for carrying crude oil and refined products: tankers, tank barges, pipelines, rail tank cars, and motor tank trucks.¹ Tankers and pipelines are used for the bulk of the movement of petroleum.

By the turn of the century, the original cast iron pipes had been replaced by steel piping, made less leaky by flanged joints, which make possible pumping at considerable pressure through lines up to twelve inches in diameter. In the twenties, the development of steel pipe with high tensile strength and of new welding methods further improved the strength and tightness of piping systems, so that it became possible

¹Issawi, p. 19.

to construct lines over long distances and pump gas through them at high pressures.² Piping technology has advanced greatly in recent years, and it now produces very thin-walled pipe that is 42 inches in diameter and can withstand stresses of 100,000 pounds per square inch. Automatic welding machines are available for the joining of the pipe lengths. The most recent development is a mobile pipe mill that moves along with the pipelayers and manufactures sections of pipe up to ten inches in diameter as the line advances.³

While the original discoveries in the Middle East were in Iran and near the Mediterranean, the discovery of oil in the Kirkuk fields of Iraq necessitated the use of some means of transportation other than water. On March 25, 1931, the Turkish Petroleum Company negotiated an agreement with Lebanon, Syria, Palestine, and Transjordan to permit the company to build a pipeline from Kirkuk to the coast in Lebanon.⁴ The agreement exempted Turkish Petroleum Company from all transit fees, import duties, and taxation while giving the company the right to construct and operate the pipeline for seventy years; the agreement carried the privilege

²Jensen, E. J. and H. S. Ellis, "Pipelines," Scientific American, CCXVI (January, 1967), 65.

³Ibid.

⁴Issawi, p. 137.

of renewal by the company.⁵ The governments of Syria and Lebanon made the same agreement with Turkish Petroleum as did the British mandatory governments of Palestine and Transjordan. In 1952, Iraq Petroleum Company constructed a new thirty-inch pipeline linking Kirkuk with Banias, on the Syrian coast, and a new agreement was reached with Syria since all transit and terminal operations could be limited to Syrian territory. The new pipeline made it possible to limit the amount of fees paid to Lebanon.

Although most of the producing wells in Saudi Arabia were near the Persian Gulf, Arabian American Oil Company commissioned a subsidiary company, Trans-Arabian Pipeline Company, to build a pipeline from Saudi Arabia to the Mediterranean. The new pipeline, called Tapline, was completed on December 2, 1950, and it was 1,058 miles long.⁶ The negotiations with Syria, Jordan, and Lebanon took three years. The capacity of the pipeline was sixteen million tons per year of 325,000 barrels per day, and of the total length, 754 miles of the line was owned by Tapline; the remainder of the line was the property of Arabian American Oil Company and subject to its management.⁷ The construction of

⁵Lenczowski, pp. 153-154.

⁶Ibid., p. 157.

⁷Ibid.

Tapline was significant because it represented a desire to use a pipeline from an area which had previously been serviced by tankers.

In Libya, the oil fields are connected by three pipelines systems. One system connects Zelter and Gaguba to Marca Brega; the latter field along with other southern fields are linked through Bahra with Ia Sider; the Syratica system connects Hofra, Beda, and Kotta with Ras Tanouf. A pipeline is being constructed from the Sirir field to a new terminal at Tolrub, and it is planned to link the Amal field with Ras Tanouf.⁸ To demonstrate the advantage of pipelines, daily capacity of Tapline averages about 442,000 barrels, whereas an average tank ship traveling between Ra's-at-Tannurah and the Mediterranean Sea by the Suez Canal can carry only 350,000 barrels, and it takes nine days to travel this distance.⁹ For a current illustration of the pipelines system in the Middle East, see figure 1.

The largest pipeline is 42 inches in diameter; it is 1,060 miles long; it eliminates approximately 3,500 miles of tanker mileage by means of the Suez canal.¹⁰ Figures are

⁸"Libya," Focus, XVII (November, 1966), 6.

⁹"Saudi Arabia," Focus, XVI (May, 1966), 5.

¹⁰Jensen, p. 65.

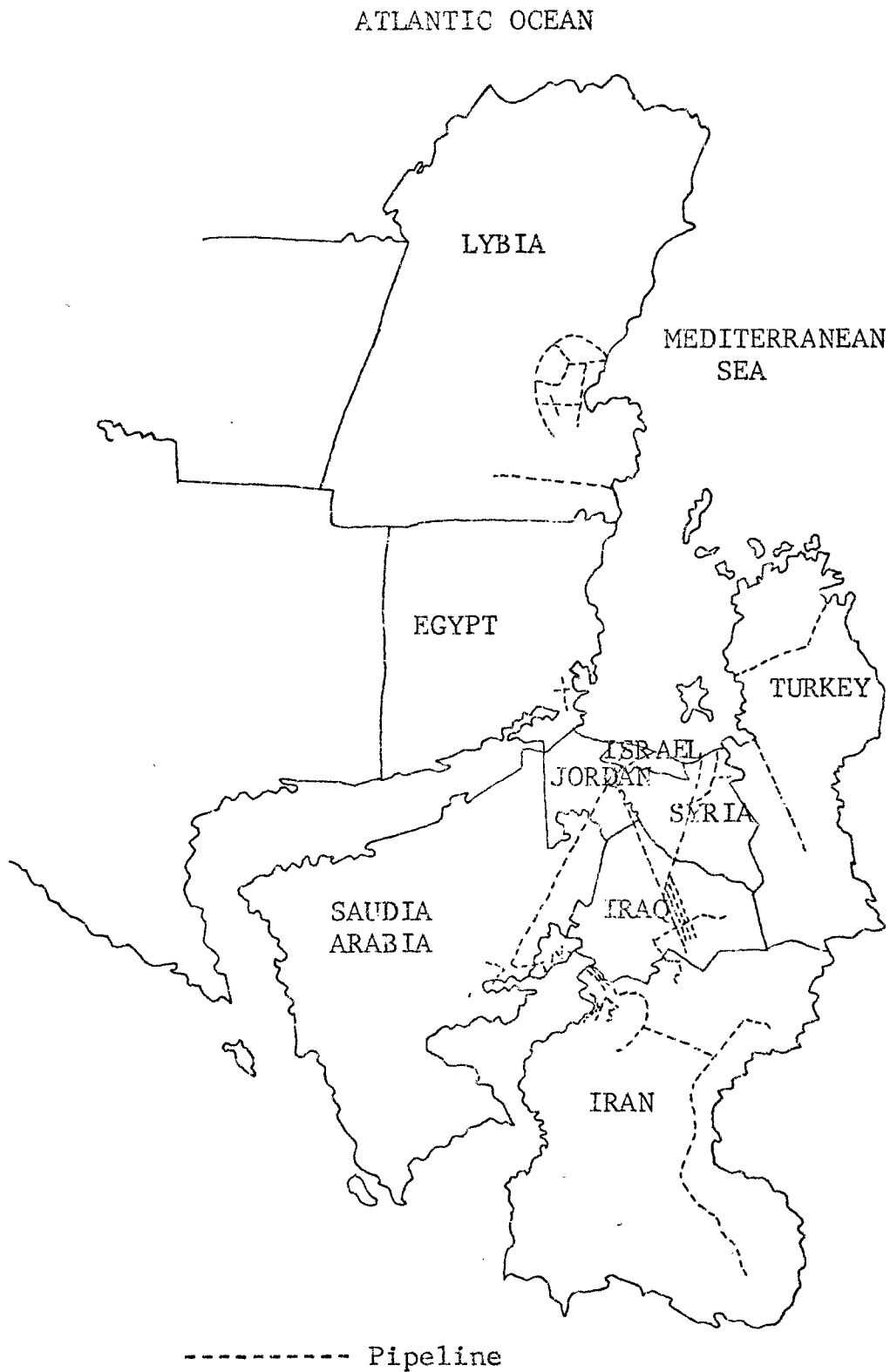


Figure 1. Pipelines in the Middle East*

*Source: Jensen, E. J. and H. S. Ellis, "Pipelines," Scientific American, CCXVI (January, 1967), p. 65.

not available on the quantity of oil which can flow through this pipeline, but since the ownership is Trans-Arabian Pipeline Company, owner of Tapline, the economic benefits would compare to the latter.

The general purpose of the pipelines has been for the purpose of reaching the Mediterranean Sea without transporting oil by tanker or ship; although, these pipelines provide shipping points on the Persian Gulf from Kuwait, Saudi Arabia, and Iraq, the primary use of pipelines has been for long distance hauling to the points near Europe. The price of transporting oil by pipeline may be a factor, also. According to Charles Issawi and Mohammed Yeganeh:

In 1950, the tanker haul cost some 65¢. By 1960, however, the increase in tanker size had brought down the cost on the haul around Arabia drastically; for a 46,000-tonner it was put at 38¢. On the other hand, the cost of transporting crude oil through the Trans-Arabian pipeline was 20-21¢ a barrel; 4¢ on this represented operating costs and the balance consisted of amortization, transit payments, and social services expenditure.¹¹

The cost of transporting Saudi Arabian crude to Bahrein through the 34-mile 12 inch submarine pipelines is estimated at about 2 cents per barrel, or 59 cents per 1,000 barrel miles. The figure for the 32 inch crude Tapline is estimated at 23.4 cents per barrel, and for the Trans-Iranian ten inch

¹¹Issawi, p. 100.

pipeline which runs from Abadan to Tehran is \$1.20.¹² These figures are not comparable, since the pipelines have different diameters and lengths, run over widely different terrains, and carry different kinds of oil. The National Iranian Oil Company estimated costs of moving oil products by various means of transportation in the region; the cost per ton mile in 1960 for truck tanker was 4.421 cents, the cost by railway was 2.648 cents, the cost by barge was 2.709 cents, and the cost by Trans-Iranian pipeline was 1.041 cents.¹³ These statistics give a relative comparison of transportation costs in Iran.

Since the major companies have control of the pipelines and use the terminals jointly, the possibility of concerted action becomes more feasible. A greater part of costs is common to the several firms, providing an enlarged basis for concerted action on price, and representatives of the participating firms meet more often to discuss matters of common interest. Independent firms may find they are at a disadvantage due to the ownership of the pipelines by the major companies. No government in the Middle East has been able or willing to declare pipelines as common carriers, and if the independent producer was permitted to use the pipeline facilities, the rates would be prohibitively high or there would

¹²Ibid., p. 209.

¹³Ibid.

be discriminatory exclusion when the line was at capacity. More market power to the major companies may arise from the necessity of the independent producer to ship oil by tanker by the Arabian peninsula, or approximately 6,442 miles round trip.¹⁴ The ownership and control of the pipelines and terminals is another method by which the major companies may prevent a price disorganization.

Tankers have been quite important in the development of oil in the Middle East. The exports of oil from the Middle East increased from 100,000,000 barrels in 1938 to 1,824,000,000 barrels in 1960; the shipments were made 39 per cent by tankers through the Suez Canal, 30 per cent by pipelines, and 31 per cent by tanker by way of the Indian Ocean. In 1960, the shipments were made 46 per cent by the Suez Canal, 19 per cent by pipeline, and 65 per cent by the Indian Ocean. However, the total barrels by each means had changed from 39,000,000 barrels by the Suez Canal to 847,000,000, from 30,000,000 barrels by pipelines to 343,000,000, and 31,000,000 by the Indian Ocean to 634,000,000 during the same period.¹⁵

As with the pipelines, the ownership and control of the tanker fleets are factors which aid the control of the world market in oil by the major petroleum companies. In 1963, the

¹⁴Leeman, p. 34.

¹⁵Issawi, p. 21.

major companies owned over 30 per cent of the non-Soviet tanker fleet but normally chartered a good part of the remainder.¹⁶ With the control of this amount of the available tankers, a boycott could be enforced; however, in a period of tanker surplus, when the independent tanker owners have unused ships on hand, the temptation to charter them for use in breaking boycott by the major oil companies may be stronger than the fear of blacklisting by the oil companies at some future date. Until recently, the Middle Eastern oil producing countries did not own ocean going tankers, but in the last few years some of them have acquired a few vessels. In October, 1959, Saudi Arabia had one tanker of 46,500 tons and Kuwait one tanker of 46,000 tons; in 1961, Iran's tanker fleet consisted of four tankers aggregating 176,000 tons.¹⁷

The tonnage of the tankers has risen in recent years. Ships able to carry a million tons of cargo, more than six times as much as the world's largest present cargo vessel, are made possible by building the ships in sections and assembling them at sea. Japanese builders have recently built the world's largest ship, the 205,000-ton Idemitsu Maru, and both

¹⁶Lubell, Harold, Middle East Oil Crises and Western Europe's Energy Supplies (Baltimore, 1963), p. 20.

¹⁷Issawi, p. 21.

the Japanese and the Norwegians have declared that 500,000-ton tankers are feasible.¹⁸ Of course, if such ships are built, the cost of transporting petroleum products to refineries will be reduced. However, ships of this size may cause difficulties in certain areas:

Idemitsu Tanker Company's giant new tanker, the 'Idemitsu Maru' recently returned to Touyama with a full cargo of 1.5 million barrels of Persian Gulf crude. It was her maiden voyage, and as the 205,000 D.W.T. ship, biggest in the world, eased her way through Malacca Strait between Sumatra and Malaysia, her captain dropped a casual remark. Any larger ship, he said, probably couldn't make it through the strait. The captain had no idea that his comment would echo clear to Tokyo and back. But it did. Japanese shipbuilders, who already envision 500,000 ton tankers, dusted off their files on Malacca Strait. They showed the navigable draft in the strait was 58 to 62 feet. By taking advantage of the tides, it could run to 66 feet or so. The Idemitsu Maru, with a top load, draws 58 feet.¹⁹

It appears that the Japanese will continue to lead in the building of large tankers. In 1966, Gulf Oil Company placed orders in Japanese shipyards for six 312,000-ton ships; each will be capable of carrying 2.2 million barrels of oil; delivery is to begin in 1968. Also, Shell placed orders for eleven 173,000-ton tankers in Japanese shipyards.²⁰ In Tokyo,

¹⁸"Ship Assembled at Sea May Carry Million Tons," Science News, XC (October 15, 1966), 311.

¹⁹Gardiner, Frank J., "Watching the World," Oil and Gas Journal, LXV (February 13, 1967), 91.

²⁰"Explorers' Horizons Broaden All Over the Free World," Oil and Gas Journal, LXIV (December 26, 1966), 109.

Nyppon Kokan Company announced that it will build a 41.7 million dollar dock that will be able to build a 500,000-ton tanker and repair a 300,000-ton ship simultaneously.²¹

Tankers of this size preclude the use of the Suez Canal, due to weight and size. In 1959, the Suez Canal Authority launched a five-year program which ended in the widening and deepening of the Canal to allow the transit of tankers drawing 37 feet, with a gross tonnage of 45,000 tons. Ultimately, the Canal Authority intends to double the present size of the Canal.²² However, it is doubtful if the development of the Suez Canal can expand as rapidly as the size of the tankers.

The problem of transit will be in the area of politics if the use of pipelines is continued, and the problem may be one of economics if tankers are used. Since all the long pipelines must cross more than one country, the problems become more complex due to the necessity of agreements with several governments. The bulk of the oil in Iraq must be pumped through the Iraq Petroleum Company pipeline which crosses Syria, and Syria has been in conflict with Iraq Petroleum on several occasions due to the failure of the country and company to agree on a fair price for use of the land.

²¹Ibid.

²²Issawi, p. 198.

covered by the pipeline. Also, in 1956, when the Suez Canal dispute was unsettled, the pipeline was sabotaged. As long as the pipelines such as Iraq Petroleum and Tapline cross territory governed by the Middle East governments, the possibility exists of oil stoppage.

Perhaps the most satisfactory means for pipeline use will be nationalization of the terminals and pipelines whereby the purchasing companies will pay a fee to the transit countries; such an arrangement would permit the local country to manage, maintain, and build the pipelines. It would be to their advantage to keep prices competitive with tanker freight and alleviate much of the present conflict between the transit country and purchasing companies.

The use of larger tankers may be both rewarding and expensive. Tankers may make it possible for oil to be obtained from producing areas other than the Middle East; such a situation would give the major companies more bargaining power with the producing countries. However, the producing countries may be forced to purchase the large tankers to market their own petroleum. For the Middle East governments to embark on such an endeavor would be quite costly. As a generality, the oil transportation trend in the Middle East has changed from early dependence on tankers through the Suez Canal to long distance

pipelines back to tankers. The present trend is toward the use of giant tankers by way of the Indian Ocean.

There can be no question that transportation was an important development in this area. The use of most of the available transportation sources by the cartel companies increased their control of the petroleum market. The availability of transportation facilities is more in evidence now, but the large company that can afford the giant tanker, own the large pipeline, control the terminal areas at seaports would be in a much better position to have lower cost transportation than the smaller company, which must depend on smaller tankers and leased pipelines or terminals.

Transportation appears to be one more element, similar to general trends, where the producing countries are attempting to maintain their economic interests in oil. The next chapter examines the present position of oil as an energy source, the oil companies' present structure, and the producing countries' motivations with regard to government oil policy.

CHAPTER IV

PRESENT POSITION

As was noted in Chapter Two, the major development of oil in the Middle East was undertaken by companies which had been restricted by a cartel agreement. Such an agreement would have been illegal for the American companies had it involved the domestic market.¹ However, the cartel has had no challenge of significance from an international body. In view of the large amount of evidence brought forward in the Federal Trade Commission Report, one has little reason to question the existence of a cartel. Assuming this cartel does in fact exist, an examination of the current status is now in order.

Prices have not been as well controlled as they were in the earlier years of the "Red-Line Agreement." After World War II, it became less easy to maintain the administered price of oil in the world. As an example, a "gesture in public relations" was given as an early reason for reduction

¹Mason, Edward S., Economic Concentration and the Monopoly Problem (New York, 1964), p. 73.

from posted prices.² After the war, the Persian Gulf posted price was \$4.44 per barrel, which was the same as crude prices posted in Texas and Venezuela. In 1948, the price was reduced to \$2.03 a barrel.³ Moreover, the Economic Cooperation Administration protested that \$2.03 per barrel was too high based upon the estimated cost of production; in 1948, the price to the Economic Cooperation Administration was reduced to \$1.88 per barrel.⁴ Although the major companies contended that this was "goodwill" or a "gesture in public relations," the price reduction was an early indication that the posted price of Middle East oil was not going to be strictly administered.

Prices have been reduced further since 1957, although the posted prices are at the 1960 level. According to Gilbert Burck in an article in Fortune:

Oil listed at, say, \$1.80 a barrel is being sold for as low as \$1.35, taking into account concessions like freight discounts. India is negotiating with Standard of Indiana and the National French Oil Company for crude at something around \$1.30 a barrel, again taking into account various concessions. And Libyan oil which is posted at \$2.20, both because of its quantity and closeness to Europe, is going for as little as \$1.55.⁵

²O'Connor, The Empire of Oil, p. 300.

³Ibid., p. 299.

⁴Ibid., p. 300.

⁵Burck, Gilbert, "The Boiling World of Oil," Fortune, LXXI (February, 1965), 131.

Since oil companies in the Middle East post or publish prices for both crude oil and oil products, they have various nonprice devices which effectively lower the terms of sale. Such devices as unusually favorable tanker rates, special refinery processing agreements, easy credit terms, etc., are examples of concessions leading to reduced prices.⁶ Laurent Wolters, managing director of Petrofina, a large nonaffiliated Belgian firm, has asserted that "no independent would dream of contracting for crude at the posted price."⁷ In fact, Wayne Leeman, in The Price of Middle East Oil, asserts that "only fools and affiliates pay posted prices."⁸ The major companies wish to keep the fiction of posted prices by requiring affiliates to pay the posted price and show a reduced profit. In 1960, Frank M. Porter, president of the American Petroleum Institute, advised the American companies to "re-orient their thinking to take into consideration the impact of world oil."⁹

A factor of less significance than price reduction has been the increasing involvement of independent companies. Until approximately the middle fifties, the seven major

⁶Leeman, p. 3.

⁷Burck, Gilbert, "World Oil, the Game Gets Rough," Fortune, LVII (May, 1958), 125.

companies dominated the oil production from the Middle East.¹⁰

See Table III for concessions held by independent companies;

TABLE III

MINOR COMPANIES OPERATING IN THE MIDDLE EAST*

Company	Operating Company	Country	Participants
C. S. Gulbenkian Estate	Iraq Petroleum Co., Ltd. (5%)	Onshore Iraq Onshore Qatar	Same
Arabian Oil Co. (Japanese)	Arabian Oil Co.	Offshore Neutral (All)	Same
Getty Oil Co.	Getty Oil Co.	Onshore Neutral Zone (Saudi Arabia half)	Same
American Independent Oil Co.	American Independent	Onshore Neutral Zone (Kuwait half)	Phillips Signal Ashland Davis Abercombie Surray Globe Lario Pauley
Irion Agency	Iranian Oil Participants Ltd. (5%)	Onshore Iran	Richfield Signal American-Independent Getty San Jacinto Std.-Ohio Atlantic-Refining Tidewater

*Source, Issawi, Charles and Mohammed Yeganeh, The Economics of Middle Eastern Oil (New York, 1962), pp. 175-181.

two independent producers, American Independent and Getty, discovered oil in their concession in the Kuwaiti and Saudi Arabian Neutral Zone in 1953; exports commenced the following year.¹¹ Also, in 1954, a group of nine United States independents, including Richfield Oil Corporation and the two Neutral Zone companies, formed the Irion Agency, Limited, which was awarded a 5 per cent participation in a revised Iranian oil concession.¹² In 1957, three other groups entered the Middle East; the Italian state oil company, Azienda Generale Italiana Petroli, made an agreement with the National Iranian Oil Company providing for joint exploration and development of certain onshore and offshore areas in Iran; Standard Oil Company of Indiana obtained a similar agreement with Iran covering two offshore areas in 1958.¹³ Oasis Oil Company was the first independent group to discover oil in Libya; the Japanese interests formed Arabian Oil Company for development of the offshore Neutral Zone; and the French government used the discovery of oil in the Sahara Desert to supply its national oil refineries.¹⁴

The sizable number of independents, plus the concessions which they have obtained, demonstrate that the seven major

¹¹Ibid., p. 133.

¹²Issawi, p. 176.

¹³Frank, p. 134.

¹⁴Ibid.

companies do not have the strength to prevent their entrance. The possibility of disorganization of price due to these independent producers is less remote than it actually appears on the surface. The independent companies have a greater independence of action than the major companies; since they have less to lose, they are freer to cut prices and to act in ways which undermine price stability. Furthermore, independents may be uninformed about their own costs and addicted to short-run gains.¹⁵ With regard to price, independent producers may, of necessity, develop a concession even if it becomes necessary to cut prices. Since a large sum may have been paid for a concession, it becomes necessary to sell large quantities of oil, if oil is discovered, due to the smaller capitalization of the independent companies. Also, due to marketing problems, the independent may sell at a lower price than the prevailing rate. Lacking marketing outlets for refined products, the independent producer may sell his crude to independent refineries at a price that will move large quantities.

However, there are available means to prevent a world disorganization of price by the independent producer. Some Middle East governments will give national companies of other

¹⁵Leeman, p. 38.

nations preferential economic treatment such as the nationalized companies in France, Italy, and Japan. Too, the major companies have bought "distress" oil from independent companies to avoid market spoiling by the latter.¹⁶ Laurant Wolters has suggested that the major companies purchase oil from independent companies with the stipulation that production be cut by the latter.¹⁷ The major companies may have difficulties if they attempt to buy too much "distress" oil, the reason being that the governments in the producing countries will not agree to cutbacks of major company production or accept substantial failures on the part of major companies to grow with demand.¹⁸

Weaknesses may be present in the world cartel of the major companies; however, the cartel also has certain strengths. Continued search for oil in other areas by these major companies may have been caused by their fear of too much dependence on the Middle East for production. In the face of continuing reserves found throughout the world, these major companies have not reduced their rate of drilling in Canada, the United States, Venezuela, Indonesia, or offshore sections. In light of such action the indication

¹⁶Ibid., p. 41.

¹⁷Burck, "World Oil, The Game Gets Rough," p. 128.

¹⁸Leeman, 41.

is that any price disorganization will find the major companies controlling production, or at least a major part of production, from all parts of the producing areas of the world. The discovery and the development of production by the major international companies in other parts of the world increases potential competition with the Middle East since these new sources can be put to use should operations in the Middle East become very difficult or much less profitable.¹⁹

Another source of strength for the major American companies is the American market which is protected by import quotas. The domestic market has the advantage, to the oil companies, of internal protection by the Connally Hot Oil Act. This federal statute, passed in 1935, prevents movement of oil from state to state without the approval of regulating agencies governed by the state.²⁰ The general effect of the law made the state regulating agencies determine the amount of crude oil produced. Perhaps, the most significant agency regulating state production of crude oil is the Texas Railroad Commission. In testimony before the House Committee on Interstate and Foreign Commerce, General E. O. Thompson, then chairman of the Texas Railroad Commission,

¹⁹Issawi, p. 163.

²⁰United States Senate, First Session, Seventy-Fourth Congress. Congressional Record (Washington, D.C., 1935)

advised the method by which the allowables are determined in Texas:

Mr. Springer. All right. Can anyone file a petition?

General Thompson. Anyone can file a petition. It is an open hearing.

Mr. Springer. Let me ask you this: Can anyone besides the oil companies file a petition, Mr. Thompson? I don't know. I am just asking.

General Thompson. No. Only the nominators, the people who want to buy oil.

Mr. Springer. All right. Then that does not mean that Mr. Flemming can come before you and file a petition.

General Thompson. Well, he could file anything he wishes. I don't suppose he wants to buy any oil.

Mr. Springer. I understand that. The probabilities are that oil companies are still going to have to file a petition to get the allowables; is that not true?

General Thompson. That is right.

Mr. Springer. All Mr. Flemming can do is to merely tell you what the facts are as they find them, is that not correct?

General Thompson. That is correct. And I have the highest regard for him.

Mr. Springer. When Humble and Magnolia filed their request, did they have a hearing?

General Thompson. We had hearings.

Mr. Springer. You had a hearing?

General Thompson. It lasted three hours.

Mr. Springer. Who appeared at that hearing?

General Thompson. All the oil companies.

Mr. Springer. All the oil companies in Texas?

General Thompson. Yes, every purchaser. We have one every month, open hearing.

Mr. Springer. That request was denied; was it not?

General Thompson. No. We fixed the allowable at the figure we felt was adequate to fill the demand. We don't take each one and grant this fellow this, and this one that much. We add them all up and get a total.²¹

²¹House of Representatives, Hearings before the Committee on Interstate and Foreign Commerce, 1957 Outlook: Oil Lift to Europe Price Increases (Washington, 1957), p. 236.

In essence, General Thompson admitted that the major companies determine the amount of production of crude oil to be produced in Texas each month. Once the Texas Railroad Commission began, it carried adjustment of supply to demand to an economically illogical conclusion. The Commission adopted what amounted to a policy of keeping the oil prices high enough for the little man.²² With the generous depletion allowance by the federal government, the major companies or large producers make money at an astronomical rate.²³ The protected American market is a source of income that the major companies can depend upon through any foreign price disorganization.

At least one writer desires that American oil compete with foreign oil. Gilbert Burck in Fortune concludes:

The United States actually contains enough cheap oil for the industry to compete profitably against all comers. But it will have to be a different kind of industry--leaner, smaller, less fragmented, and probably more profitable. It will have to realize it possesses no God given exemption from economic laws and undertake a wholesale revision of its status control system. It will have to foreswear its phony conservation, eliminate the featherbedding that it piously describes as competition, disabuse itself of the notion that real competition will heave it into the clutches of the monopolists, and let prices find their economic level.²⁴

²²Burck, "The Boiling World of Oil," p. 129.

²³Ibid.

²⁴Burck, "World Oil, The Game Gets Rough," p. 192.

This is not a study of the American oil situation, but in relation to Middle East oil, it would appear that there is no indication that the American companies will attempt any world competition using American oil, as suggested by Fortune. There may be more "competition" in the world market, but the wastes of monopoly appear to be lower than those of "competition" as evidenced by the more scientific drilling and spacing of wells in the Middle East.²⁵

The position of the major oil companies may be threatened by price disorganization; however, the major strength of these companies comes from their position on the American market, their other production in the world, and the quantity of known reserves which they control. According to a report published on June 3, 1966, by the High Authority of the European Coal and Steel Community, the Commissioner of the European Economic Community, and the European Atomic Energy Community, world energy use will increase on an average of 4.7 per cent annually between 1965, and 1980, to 33.3 billion barrels of oil equivalent by 1970, and 53.3 billion barrels by 1980. This amount is nearly double the current consumption rate.²⁶ The six-nation European Community will follow the world pattern by

²⁵Adelman, "Efficiency of Resource Use in Petroleum," p.110.

²⁶Lambert, Don E., "What Europe Is Doing about Future Energy Supplies," World Oil, CLXIII (August 1, 1966), 11.

increasing its annual energy use from 2.9 billion barrels of oil in 1965, to 5.5 billion barrels by 1980. Energy produced within the countries will cover 38 per cent to 52 per cent of total need, with imports accounting for the balance.²⁷

With such an increase predicted, the reserves in the Middle East become more pertinent.

The Organization for Economic Cooperation and Development has predicted an increase of oil use by 1980, and the Organization further predicts a changed distribution of total energy needs. The Organization includes in these predictions twenty-one countries in North America and Free Europe, plus Japan. Of the rate of increase in total energy needs, Japan will surpass Europe, and Europe will surpass North America.²⁸ Going further, the Organization estimates that oil to their own countries will reach 7.4 billion barrels by 1970, and 10.8 billion barrels by 1980. Of significance, in the Organization for Economic Cooperation and Development, is the prediction that Japan will become the largest oil importer in the world; Japanese oil imports had an increase of 10 per cent in 1950, but increased 60 per cent by 1964.²⁹

²⁷Ibid.

²⁸"OECD Energy Needs to Take Off," Oil and Gas Journal, LXIV (August 15, 1966), 60.

²⁹Ibid.

If the Organization for Economic Cooperation and Development is correct in their estimation, atomic energy will account for 40 per cent of all electrical power requirements by 1980; however, the use of atomic energy will reduce the consumption of coal more significantly than that of oil.³⁰ Basically, the report estimates that by the year 1980, oil consumption will have increased 250 per cent from the 1960 consumption.

World demand for petroleum products averaged 31,697,000 barrels per day in 1965; this amount was an increase of 8.1 per cent over 1964.³¹ According to World Oil, the estimated demand in 1966 will amount to 34,000,000 barrels per day, which is an increase of 7.3 per cent; of the 1965 demand, it is predicted that 11,566,000 barrels per day will be needed in the United States, with 22,434,000 needed elsewhere. Six regions used 94.2 per cent of the oil produced in 1965; the United States used 35.7 per cent, Europe outside Russia used 26.9 per cent, Russia used 11.7 per cent, Far East and Oceania used 10.9 per cent, South America used 5.4 per cent, and Canada

³⁰Ibid.

³¹"Vigorous Growth of Industry Continues," World Oil, CLXII (August 15, 1966), p. 85.

used 3.6 per cent.³² The production for 91.2 per cent of the total consumption came from six producing regions: United States, 28.4 per cent; Middle East, 26.4 per cent; Russia, 15.5 per cent; Venezuela, 11 per cent; Africa, 7 per cent; and Canada, 2.9 per cent.³³

In statistical evidence calculated by World Oil, indications were that 34.2 billion barrels of new reserves of crude oil were proven in the world in 1965; this amount compares with 25.5 billion barrels of new reserves proven in 1964. While proving 34.2 billion barrels of new reserves, there were 11 billion barrels produced, leaving a net gain of 23.3 billion barrels; World Oil estimates that the 365 billion barrel reserve will last 33.1 years.³⁴

Due to the amount of oil that is being discovered in the world, the Middle East governments may find their bargaining power reduced at some future date. The discovery of new sources of oil in offshore operations has produced possibilities of a vast amount of reserves. According to petroleum exploration consultant Lewis G. Weeks, there are about 700 billion barrels of potential crude and natural gas liquids that may be obtainable from primary offshore production and about 300 billion barrels from secondary recovery;

³²Ibid.

³³Ibid.

³⁴Ibid.

in addition, Weeks estimates 1.2 trillion barrels of offshore oil may be obtained from heavy oil sands and bituminous sediments.³⁵ During 1965, the petroleum industry spent about 800 million dollars on offshore activities. E. C. Holmer, president of Esso Production Research Company, is of the opinion that the petroleum industry will spend at least 25 billion dollars off the coasts of more than sixty nations during the next ten years.³⁶

In the United States, World Oil estimates that 1,325 offshore wells will be drilled in each of the next four years in the Gulf of Mexico, off the West Coast, and off the coast of Alaska; this amount may be compared to 6,400 offshore wells drilled in the ten years ending in 1965.³⁷ There will be 386 million dollars spent in the North Sea for offshore development; in the Cook Islet Basin off Alaska and the Persian Gulf, there will be 130 million dollars and 125 million dollars, respectively, spent for offshore development.³⁸ The evidence

³⁵"Assessment of the World's Offshore Petroleum Resources and Exploration Review," Southwest Legal Foundation's Symposium in the Petroleum Industry (March, 1966), p. 19.

³⁶"Offshore Wells Go for Deep Water," Undersea Technology, (January, 1966), p. 43.

³⁷"Offshore '66," World Oil, XLXIII (July, 1966), 114.

³⁸Ibid., p. 115.

indicates that considerable sums will be spent for development of offshore reserves during the next ten years.

Producing offshore oil is a costly project. A jack-up barge for eighty feet of water costs approximately 4.5 million dollars; the annual insurance premium for an offshore rig is approximately 300,000 dollars per year; supplies costs are approximately 660 dollars per day.³⁹ Once a discovery is made, costly development begins. In the Gulf of Mexico, a twelve-well self-contained platform costs about 1.5 million dollars; rough estimates put the cost of self-contained platforms in 300 feet of water or deeper at one million dollars for each 100 feet of depth. A 32-well platform designed for ice conditions in Alaska's Cook Inlet can cost from 6.5 million dollars to 9 million dollars installed and equipped. Later come the costs to store and transport; to give but one example, a vessel designed for offshore crude storage, with a 100,000 metric ton capacity, costs about 7 million dollars for the hull and about 10 million dollars fully equipped and in place, including 600,000 dollars for a single-buoy mooring. This averages about 100 dollars per metric ton of storage, nearly the same as conventional storage tanks on a fixed platform in 100 feet of water; operating costs average about 600,000 dollars per year.⁴⁰

³⁹Ibid., p. 116.

⁴⁰Ibid.

The high development costs require a large capitalization for long term profit, and this would tend to eliminate all but the major companies. Also, it would indicate that, perhaps, the major companies want oil in vast quantities outside of the Middle East although the reserves in that area are adequate for a long period of time.

In addition to new reserves of inland oil and offshore oil, there are indications that large quantities of shale are available. According to surveys made by the United Nations Department of Economic and Social Affairs and the United States Geological Survey, rich organic shale deposits of the world land areas contain an estimated 900 trillion tons of organic matter with a potential yield of more than two quadrillion barrels of oil.⁴¹ Kye Trout believes that shale oil will be economically profitable within five to six years.⁴² Oil shales are low value minerals and contain large quantities of useless material intimately bound up with useful organic material and minerals. To avoid excessive transport costs, plants must be located directly at the mines. Whether the plant is burning oil shale for power or producing gas or shale

⁴¹"Two New Studies Describe Vast Potential of Shale Oil," World Oil, CLXII (March, 1966), 15.

⁴²"Synthetic Oil . . . Reports on Shale Oil and Athabaska," World Oil, CLXII (June, 1966), 20.

oil, oil shale plants are faced with challenging problems in large-scale handling of materials.

An example of the technological challenge involved is provided by shale oil production in the advantageous shales in Colorado. These comparatively rich oil shales yield about 27 gallons of shale oil per short ton retorted; the nearest market is California, where the price of crude oil is \$2.90 per barrel, which means that the 27 gallons of shale oil from 2,000 pounds of oil shale have a market value of about \$1.85. In other words, 2,000 pounds of raw oil shale must be mined, transported to the retort, crushed, retorted, the oil separated, and 1,700 pounds of useless spent shale discarded, all at sufficiently low cost to recover and transport to the market a quantity of shale oil which would sell for about \$1.85.⁴³

Due to the high volume of production necessary to make shale economically feasible, the possibility of disorganization of the market is possible, and due to the major companies' hold on offshore production, the dependence of the world upon Middle East production becomes less significant. Also, all the reserves in the Middle East may not have been located; for example, Saudi Arabian production comes from only 10 per

⁴³Ibid., p. 22.

cent of the country's vast land area and 12,000 square miles offshore. The Saudi Government is very interested in developing other geological prospects in the remaining area.⁴⁴

The governments of Middle East nations are becoming more restless in the face of the continuing increase of new reserves and new sources of oil. Through various minor agreements, they have found a new device in the Organization of Petroleum Exporting Countries. The United Nations Petroleum Commission suggested that an organization be formed to regulate world movement of oil, and the Petroleum Commission suggested that all oil concessionaires operate in the public interest, plan conservation measures, provide equal access by all nations, equality of access for private businesses, government cooperatives, etc., and prohibit price discrimination to particular governments or purchasers.⁴⁵ However, when the Organization of Petroleum Exporting Countries was formed, it was apparent that the central purpose was a producers' cartel. As a writer reviewing the formation wrote,

One of the first signs that the circumstances were sharpening was mutiny in Baghdad that may turn out to

⁴⁴"World Crude Oil Reserves around 375 Billion Barrels," p. 180.

⁴⁵O'Connor, The Empire of Oil, pp. 336-337.

have been of seminal importance in the current history of the international oil industry. It was a meeting of governments; the governments of five countries that, at the time, were supplying some 80% of all the oil that moves in world trade. After four days' discussion, it was announced that the governments of Iraq, Iran, Kuwait, Saudi Arabia and Venezuela had decided to form the Organization of Petroleum Exporting Countries, for regular consultation among its members with a view to co-ordinating and unifying policies of the members.⁴⁶

As one of the early demands of this group, the members insisted that there be prior consultation with the governments of the member countries before an oil company changed prices. Of course, such a demand has never been accepted by the major oil companies. This demand, along with the formation of the Organization of Petroleum Exporting Countries, was a direct result of a cut in posted prices in 1960.⁴⁷

In the Organization of Petroleum Exporting Countries' meeting of April, 1966, more emphasis was placed upon price stability and production stability. On price stability, a motion was passed to prohibit the producing companies from deducting discounts from their computations for income tax purposes.⁴⁸ According to the Oil and Gas Journal, the purpose

⁴⁶Hartshorn, J. E., Politics and World Oil Economics (New York, 1962), p. 18.

⁴⁷Ibid., p. 19.

⁴⁸"OPEC Wants Higher Oil Take for Members, Promises Action," Oil and Gas Journal, LXIV (June 13, 1966), 70.

of this action is not only to increase the revenues for the producing countries, but the move is intended to discourage price cutting by independents seeking a wedge into established markets, and it will bring about stable revenues for member companies.⁴⁹ Concerning production stability, Kuwaitis requested that sanction be applied by all member nations to any oil company that failed to produce the quota given by the Organization of Petroleum Exporting Countries.⁵⁰ However, there was no indication of what sanctions should be applied.

The countries of the Organization of Petroleum Exporting Countries and producing companies are in conflict in the controversy over production. The producing nations contend that the oil companies are receiving improved product prices for refined products, firm crude oil prices, and increased profits. However, oil companies contend that their improved earnings are due to their protected American market; also, the companies are reminding the producing countries that an oil surplus exists.⁵¹ The position of the major companies strengthens the possibility that there will be attempts to use some of their new sources of oil to prevent any

⁴⁹Ibid.

⁵⁰Ibid.

⁵¹"OPEC Drives to Eliminate Discounts," Oil and Gas Journal, LXIV (September 12, 1966), 89.

significant control of prices or production of oil in the Middle East.

One of the first actions to implement the Organization of Petroleum Exporting Countries' pricing agreement was taken by Libya. A royal decree amending certain provisions of the Libyan Petroleum Law 25 of 1955 took effect on November 22, 1965. The law establishes the Organization of Petroleum Exporting Countries' formula with respect to accounting of royalties and fixing marketing discounts and other allowances. Presently, royalties calculated at 12.5 per cent of the posted price of crude oil exported are treated as a cost item and not as part of the government's fifty per cent share of oil revenues.⁵² In December, 1965, the Organization of Petroleum Exporting Countries resolved that member governments should support Libya and recommended that other members of the Organization of Petroleum Exporting Countries refuse to negotiate new oil rights with firms not complying with the new Libyan law.⁵³

A challenge for control of oil prices may come from Russia; the only nation that has been successful in finding a market

⁵²"North Africa Is Producing More Than 2 Million Barrels Per Day," World Oil, CLXIII (August 15, 1966), 46.

⁵³Ibid.

in Russia is Iran. Iran has made an agreement to supply Rumania and other Eastern European countries with thirty million tons of crude oil annually; as part of the payment, Rumania will build a tractor plant for Iran.⁵⁴ Also, Russia has agreed to build a pipeline to absorb some of the Iranian gas that is now being flared; the gas will be payment for a steel mill the Russians are building in Iran.⁵⁵ Soon after these agreements were made, Iran obtained an agreement from the consortium to increase the consortium's production 12 per cent, and the consortium agreed to return 100,000 square miles of concessions thirteen years ahead of schedule.⁵⁶ Other nations of the Middle East have not been as successful in bargaining with the major companies; the success of Iran's agreement might encourage other oil-producing nations to seek Russian or East European help.

In October, 1966, representatives of the state oil companies who were members of the Organization of Petroleum Exporting Countries met for the purpose of forming a joint marketing plan. Since the establishment of the state companies, the nations have attempted to improve the national

⁵⁴"Mideast Oil Lands Demand a Bigger Bite," Business Week, (December 17, 1966), p. 39.

⁵⁵Ibid.

⁵⁶Ibid.

income under the assumption that they could compete for markets with the major companies. However, the October meeting of the Organization of Petroleum Exporting Countries state oil companies was for the purpose of preventing price cutting or disorganization of the retail market.⁵⁷ The ability of the joint marketing agreement to offer a serious challenge to the major companies is doubtful. Neither the major companies nor producing countries desire lower prices; therefore, the effect of joint marketing will be of little significance unless the state companies are able to make agreements with state marketing companies within a consuming country, thereby obtaining markets from the major international cartel companies.

The question of price stability in the Middle East may be of increasing importance in the next few years. The increasing reserves and improved technology are decreasing costs and, in some instances, decreasing prices. However, the Middle East countries are obtaining better concessions, as evidenced by a recent agreement between Royal Dutch-Shell and the American Tidewater group and the Iranian government. Iran is to receive 75 per cent of the total income in the development of the new field.⁵⁸

⁵⁷"OPEC Pushes Joint Oil-Marketing Plan," Oil and Gas Journal, LXIV (October 24, 1966), 73.

⁵⁸New York Times, January 17, 1965, p. 62.

Shell made another agreement which goes beyond the standard 50 per cent split between producing company and local government. In an agreement with the government of Kuwait, Shell agreed to share the profit evenly with Kuwait on an offshore concession and agreed to permit the government to purchase 20 per cent shareholding in the operating company that developed the oil. Kuwait will have to pay for the 20 per cent interest, but the payment is to be made out of oil payments if oil is discovered.⁵⁹ It appears that the trend to joint operating ventures in concession agreements is becoming more evident. The portion of country ownership is paid by grants of oil, frequently.⁶⁰

Although M. A. Adelman contends that royalties are not a primary influence on prices,⁶¹ the desire for high royalties by producing countries could cause producing companies to go to other sources for their crude oil. However, the control of price seems to be beyond the law of supply and demand. In Texas, the Railroad Commission has kept prices high:

According to one independent refinery there were times in 1946 and 1949 when by all the laws of supply and

⁵⁹Hartshorn, p. 24.

⁶⁰Wall Street Journal, December 6, 1965, p. 18.

⁶¹Adelman, M. A., "Oil Prices in the Long Run (1963-75)," Journal of Business, XXXVII (April, 1964), 160.

demand the crude price should have dropped. During these two years refineries were operating at the 80 to 85% level and many independent plants were shut down due to the lack of market. During those years the gross profits in many cases were not equivalent to the cost of operating the refinery. Even under these conditions crude products did not waver because the Texas Railroad Commission kept reducing the permissible crude production until a crude shortage existed even though there was an over supply of refined products.⁶²

Lacking an organization similar to the Texas Railroad Commission in the Middle East, the international petroleum cartel has been the prime price administrator. The early use of Gulf base pricing was explained by Helmut J. Frank:

Before the war the prices at which oil bunkers were sold at ports overseas were influenced by (I do not say that they were absolutely based on but in ordinary commercial practice they were influenced by) the published f.o.b. prices quoted at production centers in the Gulf of Mexico, to which, of course, there would be added freight and insurance from the Gulf port to the actual bunkering port, in order to give a c.i.f. price. This selling price was applied to all the oil sold at a given port, regardless of its actual source of origin. So the result was that the effective f.o.b. prices of oil derived from some port other than the Gulf of Mexico port differed from that price in the Gulf of Mexico by an amount depending on the geographical position of the source of origin in relation to the port at which the oil was sold.⁶³

Of course, such a pricing system did not take into consideration the difference in costs of production or other factors

⁶²Cassady, Ralph, Jr., Price Making and Price Behavior in the Petroleum Industry (New Haven, 1954), p. 114.

⁶³Frank, p. 8.

involving gathering costs, pipeline charges, and oil losses. After 1944, the price was based on the Middle East. However, there is no evidence that the prices are governed by cost of production, competition, supply and demand, but rather, are administered by the oil companies at prices that they consider acceptable to them. There may be instances in which major companies accept crude from independent companies to prevent disorganizing markets, or there may be instances where prices are cut to remove a glut, but there appears to be no "competition" as envisioned by Adam Smith.

If there is a danger of disorganized markets, the new trend in concession as evidenced by Libyan concessions may be significant. British Petroleum, Socony Mobil, Phillips, Royal Dutch-Shell, Standard Oil Company of New Jersey, Texas Company, Hunt Oil, Sinclair, and others are drilling in this newly discovered area. Although the number of companies involved does not prove that prices will be reduced, it indicates that the group must be more closely aligned to keep the prices at the level that all desire. Shale oil might be a danger to holding present price structure since Hein Koolsbergen, president of the Oil Shale Corporation, has predicted that high quality crude oil will be obtained from shale rock for \$1.25

to \$1.30 per barrel before profits.⁶⁴ Although the quantity of shale oil could bring more supply, presently, there is little reason to believe shale will have a significant effect on the price of Middle East oil.

Since the major companies control the offshore concessions, due to the cost of drilling and operating an offshore lease, the offshore oil may be a means by which the major companies can keep control of the reserves of the Middle East. However, all offshore areas have not been successful. Out of twelve wildcat wells drilled offshore near Qatar, only two have produced oil in commercial quantities.⁶⁵ This is an area in which the National Iranian Oil Company had leased to seven companies. In another area of the Persian Gulf, off the coast of Iran, Standard Oil Company of Indiana and the Italian Oil Company have discovered oil with a producing horizon thickness of about 1,000 feet, and the well will produce 35,000 barrels per day.⁶⁶ There have been enough important offshore discoveries to warrant speculation on possible price disorganization, but at this time oil has not begun to be produced in quantities so large as to be dangerous.

⁶⁴Burck, "World Oil, The Game Gets Rough," p. 118.

⁶⁵"South Part of Persian Gulf Is Good Place to Seek Oil," World Oil, CLXIV (November, 1966), 121.

⁶⁶New York Times, January 24, 1965, p. 13.

The question of actual cost of production in the Middle East has been discussed by various authors. In Kuwait, a dispute between Kuwait Oil Company and an opposition newspaper brought a statement from Kuwait Oil Company which said that the cost to produce Kuwait oil was six cents per barrel.⁶⁷ Of course, consumers pay a price that reflects transportation costs. When Aramco finished the pipeline across Syria, the company admitted that transportation costs would be reduced from 45.5 cents per barrel, tanker costs, to 18 cents, pipeline cost; however, there was no reduction in the price of crude or refined prices when this saving was effected.⁶⁸

There is sufficient evidence to support the conclusion that production costs in the Middle East typically have been very low. Helmut J. Frank estimates the price of crude production in Bahrein at ten cents per barrel, thirty to thirty five cents in Saudi Arabia, and in Kuwait as low as ten cents or less.⁶⁹ Production costs in Iran were reported to be thirty cents after the restart of operations but were expected to decline to less than twenty cents per barrel.⁷⁰ Leeman cites

⁶⁷Gardner, Frank J., "Watching the World," Oil and Gas Journal, LXIV (June 6, 1966), 83.

⁶⁸O'Connor, The Empire of Oil, p. 301.

⁶⁹Frank, p. 144.

⁷⁰Ibid.

figures for Iraq under the 1952 agreement of thirteen shillings per long ton, or about 24 cents per barrel; and of ten cents for Kuwait.⁷¹ Issawi and Yeganeh place average production costs in recent years at under twenty cents a barrel,⁷² while the Organization of Petroleum Exporting Countries states that typical Middle East producing costs are about twenty-five cents per barrel.⁷³ None of the above figures include the royalties paid to the producing countries; however, all evidence indicates that the actual cost of producing oil in the Middle East is quite low. The New York Times reported in 1964:

The average posted price for Middle East oil is about \$1.76 a barrel. Deducting 26 cents a barrel to cover producing cost leaves about \$1.50 a barrel. Currently, this is divided equally, with the government 75 cents a barrel and the oil companies a theoretical 75 cents. In today's weak market with oil in many instances at below the posted price . . . close to 60%.⁷⁴

The general assumption is that the cost of producing Middle East oil is much cheaper than the consumer price. However, the oil companies have complained about the necessity of paying the "large" royalties, and the consuming countries

⁷¹Burck, "World Oil, The Game Gets Rough," pp. 64-66.

⁷²Wall Street Journal, November 13, 1964, p. 91.

⁷³Frank, p. 144.

⁷⁴New York Times, March 29, 1964, p. 10.

have complained about the increase in the crude oil price each time there is an increase in royalties; the companies normally raise the crude oil price rather than reduce their profits.⁷⁵

Due to the increased power of the producing countries, the low price of producing Middle East crude and the oversupply of oil, the question arises over the continual control of the industry by the major companies. If the countries are to control their own resources, in what way will the industry remain organized to prevent a glut culminating in a sharp decrease in the price of oil? Issawi and Yeganeh have implied, without candidly suggesting, that the future may bring a nationalized production company in each of the producing countries in the Middle East. The produced oil would be sold to the major companies for retail marketing; the production would be controlled by a common commission or group to stabilize prices and production.⁷⁶ Such a plan would have many complicated and complex factors. Those who believe this to be a solution may believe that the Organization of Petroleum Exporting Countries could perform this stabilizing function. Furthermore, any agreement between producing countries which

⁷⁵O'Connor, The Empire of Oil, p. 310.

⁷⁶Issawi, pp. 168-173.

have cheap operation costs and producing costs would create a precarious situation.

In relation to such an international organization, Gilbert Burck wrote in Fortune:

Barring a great international cartel that will tie up the world of oil as no international organization has ever tied up anything before, everyone in the oil business faces a long series of adjustments. Except to those who believe the world owes them a living, however, the adjustments will prove stimulating and profitable. Consumers everywhere, civilian and industrial, should rejoice. Nothing contributes more to rising productivity and living standards over the short run and over the long run, than low cost energy.⁷⁷

If an international group can arrange production and prices as desired, it is not likely that consumers will be the major beneficiary of such an adjustment. In Texas, the producing and purchasing interests used the Texas Railroad Commission to place an umbrella over the price of Texas petroleum. If the Organization of Petroleum Exporting Countries or some other group uses the results of Texas proration as a guide, a floor can be placed under the crude oil price to prevent a glut which might disorganize markets.⁷⁸ Although high profits yielded by oil proration may be partly hidden as a social

⁷⁷Burck, "The Boiling World of Oil," p. 222.

⁷⁸Cassady, p. 114.

aspect of conservation, it is a source of monopoly profit in the present case of major oil company control.⁷⁹ In testimony before the House Committee on Interstate and Foreign Commerce, General E. O. Thompson suggested the Texas Railroad Commission's role:

Mr. Wolverton. The point I have in my mind is to the effect that conservation laws not only are helpful from the standpoint of conserving the oil, but they are also helpful in increasing price and stabilizing price.

General Thompson. I would think as long as you make all of the oil that is wanted available you could not say that we were making it scarce in order to make it high.

Mr. Wolverton. No; I haven't said that you were making it scarce.

General Thompson. I don't mean you; I mean anyone.

Mr. Wolverton. I merely draw the contrast between the time when it was 10 cents a barrel with no conservation and it is \$3.20 now with conservation.

General Thompson. We received quite a lot of abuse when it was 10 cents a barrel for letting it flow unrestrained. And we will probably get abused for letting it be conserved. So we just follow the statue and do the best we can.

Mr. Wolverton. An the consumers pay the bill.

General Thompson. You added that, I didn't.⁸⁰

Cassady sums up proration:

The allocation of allowables for fields in Texas, for example, is based first on the principle of avoiding physical waste and second restricting production to market demand (although some might argue the two bases should be set down in reverse order).⁸¹

⁸⁰1957 Outlook:Oil Lift to Europe Price Increases, p. 192.

⁸¹Burck, "The Boiling World of Oil," p. 221.

Any agreement between countries, or in collusion with the major oil companies, would necessitate resolving the conflict between producing companies and producing countries. In the event that the price should fall to one dollar per barrel for crude, and such a situation is quite unlikely, with Middle East host governments receiving eighty cents per barrel, the producing companies would not agree to take such a low profit. Therefore, collusion would be inevitable between the companies and countries.⁸² Basically, the companies want to control production in the United States to maintain their profit structure, and abroad they want the aid of military and economic guarantees to prolong their empire.⁸³

Also, inauguration by the Organization of Petroleum Exporting Countries to establish "planned production" would have the effect of encouraging the oil companies to look to other sources for their supply. The oil companies claim any attempt to reduce or increase the production of Middle East oil by Middle East governments would be in violation of concession agreements.⁸⁴ As in the case of the Texas Railroad Commission, the oil companies would be agreeable only if the

⁸²Burck, "The Boiling World of Oil," p. 221.

⁸³O'Connor, World Crisis in Oil, p. 411.

⁸⁴Wall Street Journal, December 6, 1965, p. 22.

regulating agency could be used by these companies to control the oil production, and the agency would have to be friendly to the major companies. Adelman believes that the power is shifting to the countries; in regard to the statement that big business with economic power will make everything "nice and tidy and proper" again, he writes:

It is neither the first nor the last time that these words "economic power or big business" will be heard. And it is quite possible that these companies will be so flattered by this legend of their "power" that they will accept the responsibility for managing the market in their own name, which would be a disastrous mistake for them. The record since Suez is one of their loss of control while a market emerged. It is now the turn of the governments of the producing countries (with some help from consuming countries) who claim the right of "consultation" before any price change and the right to refuse royalties calculated on the basis of prices below posted prices.⁸⁵

If the market is managed by an organization such as the Organization of Petroleum Countries, "big business" control could be hidden by an apparent control by producing countries. By stressing the large reserves of oil in many parts of the world in addition to offshore production, and shale oil, etc. all of which are controlled by the major oil companies, it would not be difficult for the oil producing countries to be persuaded to accept the price and production demanded by the world oil cartel.

⁸⁵Adelman, "Oil Prices in the Long Run (1963-75)," p. 151.

Although Adelman believes that the oil cartel has not existed since 1939, and that competition has determined crude and refined oil product prices since 1957,⁸⁶ he presents no evidence that would challenge the findings of the Federal Trade Commission report of 1952. With the control of the new reserves by the seven major companies, the power of individual countries continues to wane. Even in Canada, Fanning believes that extraordinary producing sands will present a field of immense proportions, although it is not yet proven.⁸⁷ The companies would like to develop the new areas, as well as the older areas, free from any local governmental influence unless they control the local government. The Wall Street Journal has contended that the freedom given oil companies by the Libyan government caused the rapid development of Libya's oil fields.⁸⁸ However, there is no evidence that freedom of action created more rapid development of Libyan fields than the desire of the developing companies for production.

If it can be assumed that company action in the petroleum industry will follow the history of past developments, the major companies will continue to control the oil of the

⁸⁶Ibid., p. 155.

⁸⁷Fanning, p. 183.

⁸⁸Wall Street Journal, November 13, 1965, p. 1.

Middle East. Since the agreements in the Middle East do not permit the host country to determine price or production, renegotiation of these agreements will be necessary for a major change in this area. Also, the host countries will not be a party to a disorganization of markets unless they can find some rationale for such action. If state oil companies continue to demand oil as royalty payments, the state companies may wish to sell the oil in established markets; however, Leeman believes this will have adverse effect:

The sale of oil by Middle Eastern governments has never seriously threatened to disorganize world markets, nor has it promised to make them more competitive. The governments entitled to royalty oil could always elect to take attractive cash payments instead, and the Saudi and Kuwaiti governments have the same alternative open to them under the agreement with the Japanese company operating offshore from the Neutral Zone. The growing interest of Middle Eastern governments in price stability makes it almost certain that they will not market any oil they acquire in such a way as to undermine prices.⁸⁹

Like the state of Texas, the governments of Middle East countries receive much of their income from oil. The desire for more income makes the governing agency a partner of the oil companies in attempting to keep oil prices as high as possible. The success of the Texas Railroad Commission in limiting production and placing a floor under the price of

⁸⁹Leeman, p. 203.

crude may encourage a similar organization in the Middle East to keep the oil returns high for both the oil companies and the local governments.

The evidence leads one to conclude that the large reserves will be a stabilizing rather than a disorganizing factor in the development of oil resources of the Middle East. The attempt by the producing countries to form a producers' cooperative through the Organization of Petroleum Exporting Countries or a regulating agency similar to the Texas Railroad Commission will be successful only if the cooperative or agency will agree to collusive action with the major international oil companies.

CHAPTER V

SUMMARY

The development of oil in the Middle East began with the discovery of oil in Iran by British interests, but it was not until large reserves were discovered in Iraq that the potential richness of this area was realized. Iraq was developed by British, Dutch, American, and French interests, and Iraqi development was significant since it represented the first venture of American interests in the Middle East. Also, the world petroleum cartel was organized after oil was discovered in Iraq. Saudi Arabia was developed by American oil companies with the aid of American foreign aid during World War II, and Kuwait was developed by British and American interests. American companies comprising the cartel were Standard Oil Company of New Jersey, Texas Company, Gulf Oil Corporation, Standard Oil of California, and Socony Mobil Corporation. These companies plus British Petroleum and Royal Dutch-Shell were the companies which formed the world petroleum cartel.

Since 1928, there has been no evidence of price competition between the major oil companies, but there appears to

be more competition for concessions in the Middle East since the producing countries lease various areas to more companies. The history of oil pricing in the Middle East has been one of price administration by the major companies in their collective interests. The producing countries have formed the Organization of Petroleum Exporting Countries in an attempt to obtain better royalty payments and more production, and this organization could become a willing partner with the major oil companies to keep prices high.

The reserves in the Middle East represent the largest pool of oil known. Of all the world known oil reserves, 62.5 per cent are found in the Middle East, and in 1965, this area accounted for 27.7 per cent of total world production.

There appears to be an oil surplus, and this factor increases the importance of the cost of production of crude. The oil in the Middle East is the most inexpensive to produce of any known in existence; however, the technological advances reducing the cost of atomic energy and shale oil may make these sources of energy a competitor to Middle Eastern oil. Also, the major oil companies have discovered oil in large quantities in offshore drilling, but the cost of exploration is higher and production costs are higher than those of Middle East oil.

The danger of disorganized markets due to price reduction does not appear evident presently. Although the producing countries have been granting concessions to more independent companies, the major companies continue to control the main marketing outlets. Also, the major companies control the movement of a major portion of the oil from all producing countries. Neither the major companies nor producing countries would benefit from a disorganized market in petroleum. Therefore, if the producing countries are successful in cooperating through a regulating agency, their income can be increased only through cooperation with the major companies.

If the producing countries form an agency for production and price control, they should study the Texas Railroad Commission. The latter has been successful in controlling production and maintaining price stability through proration in cooperation with the major oil companies. Perhaps the Middle East countries will form a controlling agency within the Organization of Petroleum Exporting Countries. Cooperating with the major companies on price and production would benefit the Middle East countries by continued high oil royalties, and the oil companies would be benefited through their ability to continue to administer oil prices for a profit return as high as they desire. Only the consumer is not represented in

agreements between major oil companies and producing countries; only through an international oil authority more powerful than the major oil companies of producing countries would consumer representation be provided. Any such oil authority appears to be much in the future.

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