80TH CONGRESS
1st Session

SENATE

REPORT
No. 9

INVESTIGATION OF PETROLEUM RESOURCES IN RELATION TO THE NATIONAL WELFARE

FINAL REPORT

OF THE

SPECIAL COMMITTEE INVESTIGATING PETROLEUM RESOURCES

PURSUANT TO

S. Res. 36—79th Congress

(Extending S. Res. 253—78th Congress)

SUBMITTED BY MR. O'MAHONEY

JANUARY 31, 1947.—Ordered to be printed

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1947

Special Committee Investigating Petroleum Resources

JOSEPH C. O'MAHONEY, Wyoming, *Chairman*

TOM CONNALLY, Texas

ARTHUR H. VANDENBERG, Michigan

EDWIN C. JOHNSON, Colorado

E. H. MOORE, Oklahoma

JOHN H. OVERTON, Louisiana

OWEN BREWSTER, Maine

CHAN GURNEY, South Dakota

SCOTT W. LUCAS, Illinois

BURNET R. MAYBANK, South Carolina

ROBERT M. LA FOLLETTE, JR., Wisconsin

HENRY S. FRASER, *Chief Counsel*

HELEN A. GRICKIS, *Clerk*

80th Congress, 1st Session — Senate — Report No. 9

INVESTIGATION OF PETROLEUM RESOURCES IN RELATION TO THE NATIONAL WELFARE

January 31, 1947.—Ordered to be printed

Mr. O'Mahoney, from the Special Committee Investigating Petroleum Resources, submitted the following

FINAL REPORT

[Pursuant to S. Res. 36—79th Congress, extending S. Res. 253—78th Congress]

INTRODUCTION

Until science succeeds in harnessing atomic energy to the everyday machines of the modern world, petroleum will continue to be the most essential fuel of industry both in peace and in war. The discovery, development, and utilization of petroleum in modern times was one of the principal factors which prior to World War II had made the United States the greatest industrial nation. It is also indisputable that during this war the intensive production of United States petroleum, at a rate in excess of that indicated by scientific principles for maximum efficient recovery, was one of the chief factors of military victory. Therefore, it is not too much to say that the evolution of modern industrial civilization and its preservation from Nazi totalitarianism may be attributed in very large measure to petroleum, to the American oil industry, and to the team-work between the industry and the Government. But more than that, it is now clear that no nation which lacks a sure supply of

liquid fuel can hope to maintain a position of leadership among the peoples of the world. It follows that if the United States is to hold the place it now occupies on the world stage as an effective leader in elevating the standard of living for people, it must develop a national petroleum policy which will make certain that we shall not become dependent upon any other country for our supply of liquid fuel.

This basic fact was recognized by the United States Senate when on March 13, 1944, in creating this special committee of eleven Senators, it declared that "adequate petroleum reserves are essential to our national security and economic welfare."[1] The committee was instructed "to make a full and complete study and investigation with respect to petroleum resources, and the production and consumption of petroleum and petroleum products, both within and outside the United States, in their relation to our national welfare and security," and to "report to the Senate at the earliest practicable date the results of such study and investigation, together with its recommendations for the formulation of a national petroleum policy."[2]

On April 6, 1945 the Intermediate Report[3] of the committee was submitted to the Senate, recording the principal activities of the committee up to the date of the death of Senator Francis Maloney, the former chairman, on January 16, 1945.

---

[1]S. Res. 253, Seventy-eighth Congress, second session, agreed to March 13, 1944; continued until the end of the Seventy-ninth Congress by S. Res. 36, Seventy-ninth Congress, first session, agreed to January 29, 1945.

[2]*Idem.*

[3]Senate Report No. 179, Seventy-ninth Congress, first session.

Prior to the date of the Intermediate Report the attention of the committee was largely directed (a) to the wartime proposal that the Government of the United States construct, own, and maintain a pipe-line system across the Arabian peninsula designed to make Persian Gulf oil available to the United Nations in the Mediterranean theater, and (b) to the question whether the Anglo-American Oil Agreement should be an executive agreement or a treaty subject to approval by the Senate under the treaty-making power of the Constitution.

Obviously the project to build and own a trans-Arabian petroleum pipe line, if carried out, would have taken the people of the United States through their Government into the active development abroad of the natural resources of foreign countries, thus effecting a revolutionary change in national policy. It would have made the Government an owner in an area over which it had no political jurisdiction, thus breaking down, beyond the geographical frontier of the United States, the line of demarcation between the industrial and economic function of the people as individual private citizens, and the political function of the Government as the agent of all the people. Suffice it to say that the executive hearings held by this committee, under the wise and extremely capable leadership of the late Senator Francis Maloney, and the advice given by him, as spokesman for the committee, to President Roosevelt resulted in the abandonment of the project.

As to the constitutional status of the Anglo-American Oil Agreement, the committee succeeded in having it submitted to the Senate as a treaty, despite the fact that it was originally designed by its authors to take effect between the United States and the United Kingdom merely as an executive agreement. In view of the far-reaching

implications and the important subject-matter of the Agreement, the committee believed that there was no question but that it constituted a treaty and ought to be handled as such according to the Constitution. The committee had observed with alarm the increasing inroads made upon the treaty-making power in recent years through the device of the executive agreement. The committee therefore decided that it would be contrary to public policy and to constitutional limitations if this important international covenant were permitted to escape the scrutiny of the Senate. Again, the executive hearings by this committee (on which sat the chairman of the Committee on Foreign Relations) and the conferences between Senator Maloney and the highest executive officers of the Government, including the President, resulted in the Agreement being transmitted on August 24, 1944 to the Senate as a treaty. Subsequently, on January 10, 1945 President Roosevelt withdrew the treaty for renegotiation with the United Kingdom. On November 1, 1945 the revised treaty was resubmitted by President Truman to the Senate, where it is now pending before the Committee on Foreign Relations.

Upon completing the activities referred to in the Intermediate Report aforesaid, the committee next addressed its attention to the underlying problem of the formulation of a national petroleum policy. In order that there would be made available to the Congress and to the public a complete exposition of the basic facts involved, without which no competent judgment could be rendered, the committee conducted public hearings in Washington, D. C., as follows:

1. "Foreign Contracts Act." (S. 11.) Joint hearing with a subcommittee of the Committee on the Judiciary. (May 17, 18, 21, and 22, 1945.)

2. "New Sources of Petroleum in the United States." (June 19, 20, 21, 22, and 25, 1945.)

3. "American Petroleum Interests in Foreign Countries." (June 27 and 28, 1945.)

4. "Petroleum Requirements—Postwar." (October 3 and 4, 1945.)

5. "War Emergency Pipe-line Systems and Other Petroleum Facilities." Joint hearing with surplus property subcommittee of the Committee on Military Affairs. (November 15, 16, and 17, 1945.)

6. "Wartime Petroleum Policy under the Petroleum Administration for War." (November 28, 29, and 30, 1945.)

7. "The Independent Petroleum Company." (March 19, 20, 21, 22, 27, and 28, 1946.)

8. "The Oil and Gas Division of the Department of the Interior." (June 17, 1946.)

At each of the above hearings, with the exception of the last, the committee had the benefit of thorough factual presentations by representative groups selected by the petroleum industry. The statistics, charts, historical data, and elaborate descriptive material, thus assembled with painstaking care, together with their logical presentation at the hearings, have been of great aid to the committee in arriving at its conclusions. Likewise, the committee has benefited from the valuable testimony of numerous witnesses from governmental agencies charged with duties relating to certain phases of petroleum activity, and from interested members of the public—to all of whom the committee expresses its gratitude. Indeed, too much credit can-

not be given to the representatives of industry and of Government for the thoroughness and the frankness with which they prepared and presented their evidence. The demand which the committee has had for the printed volumes of the hearings bears witness to the value of the material that was gathered.[4]

FACTUAL SUMMARY

The most pertinent facts developed at these hearings may be briefly summarized as follows:

1. Although the demand in the United States for petroleum and petroleum products is greater now than it ever has been, and although the demand gives every indication of continuing to increase,[5] this country is no longer the world's greatest reservoir of oil. More than 63 per cent of all petroleum produced in the world between 1859 and 1941 was drawn from deposits within the boundaries of the continental United States.[6] It was United States oil that made this country the industrial leader of the world. It was United States oil primarily that fueled the armies,

---

[4]Thus far, more than 21,000 copies of the various hearings have been distributed, of which more than half have been distributed by the Government Printing Office through sales in excess of 7,800 copies and through shipments to libraries, etc.

[5]"Post War Demand for Oil Products," *World Petroleum,* September 1946, pp. 60, 63. See also address by Serge B. Jurenev, of the Continental Oil Co., reported in *The Wall Street Journal,* January 9, 1947. See also *National Petroleum News,* December 25, 1946, pp. 24-27.

[6]Hearings, "American Petroleum Interests in Foreign Countries," pp. 354-357. *The Petroleum Almanac* (National Industrial Conference Board), 1946, pp. 293-298.

the fleets, and the air squadrons of the United Nations in the war against Germany, Italy, and Japan. Today, however, less than one-third of the proved oil reserves of the world are located in continental United States.[7]

2. Discoveries of new fields in the United States during the past ten years have been decreasing in size and importance, while the opposite is true of discoveries made abroad.[8] The average new field discovered at the present day in the United States scarcely exceeds 2,000,000 barrels of recoverable oil, while the 300 fields discovered abroad during the 20 years prior to 1943 have an average ultimate yield of about 100,000,000 barrels each.[9]

3. In the United States one wildcat well has been drilled for every 12 square miles of prospective area, but in foreign countries only one wildcat has been drilled for every 480 square miles; and the best evidence available at the moment would indicate that the land area of Russia is a greater potential source of petroleum than continental United States.[10]

---

[7]*The Petroleum Almanac, op. cit.,* p. 42. Hearings, "American Petroleum Interests in Foreign Countries," pp. 199-201. In the Middle East alone, the proved reserves greatly exceed those of the United States. *Ibid.,* p. 73.

[8]Hearings, "New Sources of Petroleum in the United States," pp. 275-280; "Wartime Petroleum Policy under the Petroleum Administration for War," pp. 6-7, 68 ff., 85, 217; "The Independent Petroleum Company," pp. 216, 249, 262; "American Petroleum Interests in Foreign Countries," pp. 5-7, 66 ff., 422.

[9]Testimony of James Terry Duce before subcommittee of the Committee on Public Lands and Surveys on S. 1243, 78th Cong., 1st Sess., August 3, 1943, "Synthetic Liquid Fuels," p. 63.

[10]Hearings, "Foreign Contracts Act," pp. 129-131.

97179 O - 47 - 2

4. New sources of petroleum in the United States might be obtained (but to what extent no one can say with any degree of certainty) in the following ways:

(a) New exploratory drilling on the public domain and elsewhere;

(b) Deeper drilling, as a result of improved technology, to horizons hitherto untested;

(c) Stimulated production from old fields by improved methods of secondary recovery and by payment of governmental subsidies;[11]

(d) Exploration of the continental shelf;[12]

(e) Manufacture of gasoline and other products from natural gas; and

(f) Extraction of petroleum from oil shale, and manufacture of synthetic liquid fuel from coal as well as from agricultural commodities.

5. The discovery, production, refining, and distribution of petroleum and its products are operations too complex and costly to be feasible for individual enterprise, but may be conducted efficiently and profitably only by corporate organizations.

6. American groups, organized in the corporate form, have not only achieved a high degree of efficiency in the

---

[11]By listing the payment of subsidies as a method of obtaining additional oil, the committee is not to be understood as taking a position either advocating or opposing a subsidy program.

[12]The "continental shelf" is sometimes defined as the submarine extension of the land-mass of the coast to a depth of 100 fathoms.

United States but have carried the industry to almost every quarter of the globe.

7. The development of the industry has been marked by the appearance of integration and concentration.[13]

8. During the year 1944, 83.51 per cent of all crude oil run to stills in the United States was handled by 21 major companies. The remaining 16.49 per cent was refined by approximately 234 independent companies.[14] In the same year, 61.3 per cent of the gross domestic production of crude oil was produced by 21 major companies.[15] In the case of American oil companies with investments abroad, from 93 to 95 per cent of the total investment is held by 22 companies and their subsidiaries and affiliates.[16]

---

[13]By "integration" is meant the consolidation under the same corporate management of the principal branches of the industry, namely, production, refining, transportation, and marketing. By "concentration" is meant the acquisition by a comparatively few companies of control over a substantial portion of the industry. Integration and concentration of control are the characteristics according to which, by common usage in the business, corporations are roughly designated as "majors" or "independents."

[14]Hearings, "The Independent Petroleum Company," pp. 188-189.

[15]*Ibid.*, p. 53. This corresponds roughly with the proportion of the proved reserves owned by the major companies. See statement prepared for the Temporary National Economic Committee by William S. Farish, president, Standard Oil Co. (N. J.), printed in hearings before the said committee (October 23, 1939), Part 17, Petroleum Industry, Section IV, pp. 9933-9935.

[16]Hearings, "American Petroleum Interests in Foreign Countries," p. 182. Two of these companies (James B. Berry Sons' Co. and Tide Water Associated Oil Co.) have no investment in foreign exploration or production, but confine their investment abroad to other branches—to marketing in the case of the former of the two companies, and to refining and marketing in the case of the latter company.

9. American oil interests own or have a share of production or of proved crude-oil reserves in 20 foreign countries in both hemispheres.[17] American petroleum investment abroad increased at the rate of $100,000,000 per annum during the 20-year period beginning with 1920.[18] The American share of foreign proved reserves (excluding Russia) has grown from 22.7 per cent of the estimated 9,175,000,000 barrels in 1928, to 46.3 per cent of the estimated 37,554,000,000 barrels in 1945.[19] The American share of foreign proved reserves in the Western Hemisphere is 65.2 per cent of the total foreign reserves in this hemisphere.[20]

10. The risks and financial costs involved in foreign operations are of such magnitude that only the larger companies can assume the hazards, and even these companies find the difficulties so great that they customarily operate through hundreds of subsidiaries and by means of joint

---

[17]Hearings, "American Petroleum Interests in Foreign Countries," p. 57. American oil interests are known to be directly or indirectly engaged in exploration in at least 11 foreign countries or areas in which there has not yet been developed commercial production or proved reserves. *Ibid.*, p. 57.

[18]At the end of 1919 the total assets employed abroad were $399,000,000 and at the end of 1939 they were nearly $2,500,000,000—a growth of 526 per cent. *Ibid.*, pp. 157-161.

[19]*Ibid.*, pp. 199-201.

[20]*Ibid.*, p. 200. It should be noted that even in the Western Hemisphere there are vast stretches of untested territory, especially in South America where the surface geology has been thoroughly studied in only a few countries and where geophysical methods of exploration have not been applied on a large scale even in all of these. (See "Oil Resources of South America," *World Petroleum*, December 1946, pp. 54-57.)

ventures among themselves and with foreign corporations so as to distribute the risk.[21]

11. American oil companies, managed independently of the Government of the United States, are associated in some joint ventures with foreign oil companies that are controlled by foreign governments.[22]

---

[21]Hearings, "American Petroleum Interests in Foreign Countries," p. 182. For example, the Iraq Petroleum Co. is owned by British, Dutch, and French interests, together with the Standard Oil Co. (N. J.) and the Socony-Vacuum Oil Co. The Arabian American Oil Co., which holds the well-known concession in Saudi Arabia, is presently a joint venture of the Standard Oil Co. of California and the Texas Co. Recently it has been reported that negotiations are in progress looking to a further spreading of risk by the Arabian American Oil Co. through acquisition of substantial blocks of its stock by the Standard Oil Co. (N. J.) and the Socony-Vacuum Oil Co. The consummation of this realignment of ownership would appear to assume the termination of the famous "Red Line Agreement" whereby the companies associated in the Turkish Petroleum Co. (Iraq Petroleum Co.) undertook not to engage in activity in former Ottoman territory beyond the borders of Mesopotamia (Iraq) except through the medium of the Turkish Petroleum Co. (See *Diplomatic Protection of American Petroleum Interests in Mesopotamia, Netherlands East Indies, and Mexico,* p. 21. Senate Document No. 43, Seventy-ninth Congress, first session, prepared by the chief counsel of the committee.)

[22]For instance, the Anglo-Iranian Oil Co., which is controlled through stock ownership by the British Government, owns a 23.75 per cent interest in Iraq Petroleum Co. in which two American companies, the Standard Oil Co. (N. J.) and the Socony-Vacuum Oil Co., own an equivalent percentage. Another example is the equal division of control of the Kuwait Oil Co. between the Anglo-Iranian Oil Co. and the Gulf Oil Corp. Not the least of the advantages possessed by the privately-owned company is its ability to enter a foreign country which might bar the door to operations therein by a company controlled by a foreign government. The vice-president of the Arabian American Oil Company has stated that

12. Foreign concessions in which these investments are made involve operations of such magnitude, often affecting vast areas and large segments of native populations in the stage of agricultural or nomadic civilization, that the companies must engage in activities which are normally considered the function of government, charity, or industries of other types.[23]

13. The very size of many foreign concessions, covering areas sometimes greater than most states of the American Union, and affecting the economic welfare of all inhabitants of the regions where located, necessitates complicated negotiations between the companies and the foreign governments concerned. The resulting contracts have, therefore, an intimate relationship both with the economy and the politics of foreign countries.

14. The economic impact of the production and distribution of petroleum upon the people of all nations of the world is so great that not infrequently a strong movement develops toward nationalization of petroleum resources in those countries where oil deposits are found, and toward

---

King Ibn Saud remarked "that he was glad to make an agreement with a company which would not involve itself in the complicated politics of the Middle East but would carry out its commercial mission of exploring for and developing oil fields." (James Terry Duce, "Aramco Concession," *The Texaco Star,* Saudi Arabian Number, 1946, pp. 16-18, at p. 17.)

[23]Thus, the companies often dredge channels, build roads, schools, light and power plants, hospitals, etc. (*Infra,* pp. 39-40.) Sometimes these activities are carried on by the companies in conjunction with foreign public authorities, and sometimes independently. (Hearings, "American Petroleum Interests in Foreign Countries," pp. 61-65, 271-289.)

establishment of state oil-trade monopolies in other countries that are on an import basis.

15. There are vast areas of the globe which apparently are without petroleum deposits. Most of Africa and Australia offer little prospect to the driller. China, Japan, eastern Siberia, a large part of Russia in Europe, the Scandinavian peninsula, France, Spain, Italy, and the British Isles are virtually without local sources of oil supply. Except for the United States, which with approximately 20 per cent of the world's potential oil-producing area has furnished more than 63 per cent of the world's oil requirements, the more industrialized and populous countries must look beyond their own borders for the petroleum they require. Russia, however, which cherishes among its dominant aspirations the achievement of industrial leadership, possesses in the Ob basin of western Siberia a vast extent of potentially rich oil land, and also has control of important sources of supply in the Caucasus and in eastern European territory which is presently in the Soviet zone of influence as a result of World War II.[24]

16. American oil companies operating abroad have furnished a large proportion of Europe's needs from their Latin-American concessions,[25] and are now preparing to furnish an even larger proportion from their concessions and through their distributing facilities in the Near and Middle East.[26]

---

[24]Hearings, "Foreign Contracts Act," pp. 124 ff.; "Wartime Petroleum Policy under the Petroleum Administration for War," pp. 120-121.

[25]Hearings, "American Petroleum Interests in Foreign Countries," p. 213.

[26]It was announced last month that the Standard Oil Co. (N. J.) and the Socony-Vacuum Oil Co. had concluded "in

The mere recitation of the above facts makes it immediately obvious that the story of oil now unfolding on the international horizon is a political and economic drama of the first magnitude. It is a drama of peace and war and progress that may affect the future of civilization even more profoundly than it has the past.

The formulation of a national oil policy raises questions both domestic and international—questions as to production and consumption at home and abroad; questions of the relationship between the "independents" and the "majors," among the majors themselves, and between the majors and foreign governments; questions of cartelization and imperialism; questions of the relationship between American operators and the Government of the United States; and finally, questions of international understanding among the peoples of the world, so that petroleum, instead of being a possible source of conflicting ambitions among rival Powers, may become a means of raising the standard of living of people everywhere and of promoting the dissemination throughout the world of the principles of human liberty.

---

principle" an agreement for the purchase of substantial quantities of crude from the Anglo-Iranian Oil Co. during a 20-year period. The agreement also involves the possibility of constructing a pipe line from the Persian Gulf to the Mediterranean. This contract, together with the acquisition of an interest by these two American companies in the Arabian American Oil Co. (*supra,* p. 11 *n.*), indicates a belief that Europe and the western Mediterranean area will constitute a great future market for petroleum products. (*The Wall Street Journal,* December 27, 1946.)

THE NECESSITY FOR PETROLEUM

It is appropriate here to repeat that in time of peace a nation, to maintain a first-class rating in the trade and commerce of the modern world, must have access to an abundant supply of oil because mechanized industry and transportation depend upon it. Oil is also of basic importance for purposes other than the provision of energy. Petroleum lubricates the fleets, airplanes, and machines of the world. It is a raw material in the whole field of chemicals. It is used in the manufacture of pharmaceutical products, paints, solvents, plastics, and synthetic rubber. It is used as fuel for domestic comfort and for heating generally, on an ever-growing scale.

Furthermore, in time of war, as twice demonstrated on a large scale in the present century, a nation, to remain a first-class Power, must have petroleum resources immediately and continuously available in virtually unlimited volume. Oil is the *sine qua non* of military victory.

Although future developments of atomic research may eventually result in supplanting some or many of the peacetime applications of petroleum, an industrialized nation cannot in the immediate nor perhaps in the distant future dispense with oil both for fuel and lubricating use. Moreover, despite the prospect that the military application of atomic fission may render future war briefer and still more catastrophic, a nation in relying solely on the atomic bomb, either for offense or defense, would court disaster.[27] If the

---

[27]Frederick S. Dunn, *et al., The Absolute Weapon: Atomic Power and World Order,* pp. 21-107. (Bernard Brodie, *Ed.;* Institute of International Studies, Yale University. New York, 1946.)

97179 O - 47 - 3

use of atomic bombs by one or by both belligerents did not terminate the struggle, the supply of oil might again prove the decisive factor.

Therefore, as a basis for a sound national petroleum policy, the extent and location of our proved oil reserves, their productive capacity, and our domestic requirements must be considered.

PROVED RESERVES

However sanguine may be the hopes of geologists derived from historical trends of discovery, or however likely may be the presence of petroleum in untested areas,[28] it would be unwise to rest conclusions for present purposes upon any premise other than "proved" reserves as that adjective is understood by the American oil industry.[29] If

---

[28]Much has been published recently as to potential oil reserves underlying the continental shelf. Although it is virtually certain that petroleum is present in the continental shelf off some parts of the coast, its recovery by known technical methods would involve prohibitive costs. The greatest underwater depth at which drilling has been thus far successful is about 15 fathoms, and this has been not in the open sea such as the Gulf of Mexico but in the protected waters of Lake Maracaibo in Venezuela. To be sure, research in the technique of underwater drilling should continue vigorously in the hope that recovery of oil in the continental shelf may become commercially possible. However, at the present time the United States should not base its petroleum policy upon the expectation that the development of such resources is imminent.

[29]The American Petroleum Institute's committee on petroleum reserves, under the chairmanship of the late J. Edgar Pew, in a report dated February 16, 1945, defined "proved" reserves in the following language: "Proved reserves are both drilled and undrilled. The proved drilled reserves, in any pool, include the oil estimated to be recover-

present estimates of future productive possibilities are later demonstrated to have been conservative, our national oil policy could be readily adapted to the happy plenitude of supply. If the future proves less roseate, our policy will have run concurrently with the facts and the nation's security will not have been adventured.

1. *Proved reserves within continental United States.* The latest (December 31, 1945) estimate by the American Petroleum Institute is 20,826,813,000 barrels of crude oil recoverable under existing operating conditions.[30] Although since 1936 the total estimated reserves have shown an annual increase (with the exception of 1943),[31] this has been

---

able by the production systems now in operation (whether primary or secondary) and from the area actually drilled up on the spacing pattern in vogue in that pool. The proved undrilled reserves, in any pool, include reserves under undrilled spacing units which are so close, and so related, to the drilled units that there is every reasonable probability that they will produce when drilled." (Report printed in hearings, "New Sources of Petroleum in the United States," pp. 38 *et sqq.*) It is worthy of note that Soviet geologists take into account, in addition to reserves deemed "proved" under American standards, "supposed" reserves—estimated "on the basis of the geological structure of the field and of the region," and "possible" reserves—believed "possible for various geological reasons." According to Professor Ivan M. Gubkin, prominent Russian expert, the assessment of "supposed" reserves is necessary for the planning of future oil production, that of "possible" reserves for "long-term general orientation." (Solomon M. Schwarz, "How Much Oil Has Russia?", *Foreign Affairs,* July 1946, Vol. 24, pp. 736-741.)

[30]*The Petroleum Almanac, op. cit.,* p. 42. Of course, more oil may become available by secondary recovery methods from fields where such methods have not yet been applied, and from extensions to existing pools, revisions of previous estimates, new discoveries, and improved technology.

[31]Hearings, "New Sources of Petroleum in the United States," p. 40.

owing chiefly to extensions to existing fields and revisions of former estimates, the reserves of new pools discovered each year having of late been far below annual production.[32] Of course, this trend may be reversed by the discovery of one or more great pools, but it is noteworthy that despite greater exploratory effort, increased and deeper drilling, and improved technology, the estimates of reserves found in new fields in 1945 are still less than the annual civilian consumption.[33] Some American authorities, however, are more optimistic in their estimates of the quantity of oil which may be discovered in the United States. They assert that this country "should ultimately yield at least 100 billion barrels of oil, including the 44 billion barrels already discovered."[34]

---

[32]This is true for the past five years whether one considers the token figures used by the American Petroleum Institute for new pools or the higher estimates therefor given by Mr. E. DeGolyer. (See testimony at hearing, "New Sources of Petroleum in the United States," pp. 275-280.) It is of interest to note that discoveries aggregating from 80,000,000 to 100,000,000 barrels have been made on the public domain since the O'Mahoney Act of December 24, 1942 (56 Stat. 1080), and that exploration has been notably stimulated by the Act of August 8, 1946 (Public Law 696), amending the Mineral Leasing Act of 1920 (41 Stat. 437).

[33]Hearings, "Wartime Petroleum Policy under the Petroleum Administration for War," pp. 84-85. It has been recently asserted that in the last five years the oil producer's effort has increased 41 per cent, the results have shown a decrease of 58 per cent, and his costs have meanwhile increased 256 per cent. (H. J. Struth, "Cost of Discovering New Petroleum Reserves Continued to Increase in 1945," *The Petroleum Engineer,* February 1946, Vol. 17, pp. 51-58; see also James V. Brown, "The Trends in Costs of Replacing Petroleum Reserves," *The Independent Petroleum Association of America Monthly,* March 1946, Vol. XVI, pp. 17-26.)

[34]Wallace E. Pratt, *Oil in the Earth,* p. 68. (University of Kansas Press, 1943.) William R. Boyd, Jr., president of

2. *American interest in foreign crude reserves.* Although data comparable in accuracy to estimates of United States domestic reserves do not exist in respect of foreign areas, the total proved reserves outside the United States have been estimated at 43,319,000,000 barrels, of which about 40.1 per cent, or 17,371,000,000 barrels, represents our position as of January 1, 1945.[35] Of these reserves about 5,596,000,000 barrels are located in the Caribbean region (Venezuela, Colombia, and Trinidad); about 11,136,000,000 in the Near and Middle East; and the remaining 639,000,000 are distributed in Oceania, Europe, and the Western Hemisphere outside the Caribbean.[36]

PRODUCTIVE CAPACITY

1. *Fields within continental United States.* Crude oil production for the year 1929 reached a peak slightly in excess of 1,000,000,000 barrels.[37] This total was not attained again until 1936.[38] In 1940 the annual production

---

the American Petroleum Institute, also finds no reason to be unduly disturbed at the status of the reserves. "The view," he says, "that crude discoveries of importance are on the decline in this country has, in my opinion, little basis in fact." (Dallas *News,* December 15, 1946.)

[35]Hearings, "American Petroleum Interests in Foreign Countries," p. 199. Total proved reserves in the Western Hemisphere (exclusive of the United States) are about 8,885,000,000 barrels. In the Near and Middle East the total proved reserves are estimated conservatively at 26,800,000,000 barrels; in Europe (including Russia) at 6,367,000,000 barrels; and in the Far East at 1,184,000,000 barrels. *Ibid.,* pp. 71, 75, 200.

[36]*Ibid.,* p. 200.

[37]Hearings, "Petroleum Requirements—Postwar," p. 15.

[38]*Ibid.,* p. 15.

was about 1,350,000,000 barrels.[39] During the war the total rose in 1945 to a figure in the neighborhood of 1,711,000,000 barrels.[40] At the time of the formal entrance of the United States into the war in 1941, this country had an efficient productive capacity of approximately 4,650,000 barrels daily.[41] The maximum efficient rate of production began to be exceeded in mid-1944; by mid-1945 the maximum efficient capacity was being exceeded by approximately 300,000 barrels per day.[42] During the war the proved reserves within the United States were produced at the average rate of nearly 7½ per cent per year.[43] In 1946 the production is reported by the Bureau of Mines to have exceeded 1,730,000,000 barrels. The Bureau estimates a total production of 1,746,000,000 barrels for the current year.[44]

2. *Foreign fields owned by or under concession to United States nationals.* In 1939 the American share in foreign production totaled approximately 554,000 barrels

---

[39]Hearings, "Petroleum Requirements—Postwar," p. 15.
[40]*The Petroleum Almanac, op. cit.,* p. 11.
[41]Hearings, "Wartime Petroleum Policy under the Petroleum Administration for War," p. 81.
[42]*Ibid.,* pp. 6, 64-65, 81. This excessive rate of withdrawal, although regarded by scientists as unwise, was permitted in order to meet the demands of war. Our allies in the late war received from us 80 per cent of their petroleum. (Eugene Holman, "We Will Have Plenty of Oil," *The American Magazine,* January 1946, pp. 28-29, 99-101, at p. 99.)
[43]Hearings, "Wartime Petroleum Policy under the Petroleum Administration for War," pp. 111, 118.
[44]U. S. Bureau of Mines, Monthly Petroleum Forecast, No. MFR 137, December 13, 1946. See also, "Oil Industry Enters Year of Expanding Activity," *World Petroleum,* January 1947, pp. 36 ff.

daily, about 441,000 barrels thereof being produced in the Western Hemisphere, principally in the Caribbean area.[45] It is to be anticipated, however, that a rapidly increasing American production will flow from the extensive reserves in the Middle East.

During the recent war the known foreign reserves, American and other, on the average were drawn upon at the approximate rate of 2 per cent per year.[46] In August 1945 total foreign crude production (excluding Axis and Russian areas) attained a peak of 1,900,000 barrels daily.[47]

DOMESTIC PETROLEUM REQUIREMENTS

In 1938, the last normal prewar year, domestic requirements, civilian and military, were 3,115,000 barrels per day; only three years later the 1941 domestic requirements were approximately 4,070,000 barrels daily.[48] During the war, even with civilian rationing, production from reserves within the United States was increased to a peak of 4,890,000 barrels per day for the month of July 1945.[49] In 1946 the demand exceeded even the wartime requirements.[50]

---

[45]Hearings, "American Petroleum Interests in Foreign Countries," p. 193.

[46]Hearings, "Wartime Petroleum Policy under the Petroleum Administration for War," pp. 111, 118.

[47]*Ibid.*, p. 118.

[48]Hearings, "Petroleum Requirements—Postwar," p. 30.

[49]Hearings, "Wartime Petroleum Policy under the Petroleum Administration for War," p. 81.

[50]An all-time high daily crude-oil production was reached for the week ended June 15, 1946, of 4,960,650 barrels. Two weeks later the daily production was only about 3,000 barrels below this record. (American Petroleum Institute reports.) Based on statistics of the Bureau of Mines through last October, the total domestic demand for petroleum products in 1946 averaged 4,812,000 barrels daily.

Forecasts presented to the committee in October 1945 indicate a domestic demand in 1950 of 4,955,000 barrels per day, gradually rising to 5,735,000 after 1960.[51] However, since these estimates were made, new forecasts indicate a peacetime demand as high as 5,400,000 barrels daily in 1950; 5,650,000 in 1955; and 5,850,000 in 1960.[52] All these forecasts are made on the assumption that the United States will not engage in war during the period.

NATIONAL POLICY IN THE PAST

For some time after the discovery of oil by Drake in 1859 the production and sale of oil were essentially local in scope. No problems immediately arose of a nature to concern the Congress. Under the stimulus of private initiative the industry expanded as the years went by and as the demand for oil increased. During this period, and even in more recent days, it could hardly be claimed that there was a conscious or comprehensive national petroleum policy. To be sure, in the twentieth century the principle of the decision of the Supreme Court in the Standard Oil Case,[53] applying the Antitrust Act to combinations in undue restraint of interstate trade in petroleum, has been generally accepted. The principle of the Mineral Leasing Act of 1920,[54] under which the Federal Government retains ownership of oil lands on the public domain, although leasing them for development and operation by private industry, has likewise been accepted, as has federal legislation (a)

---

[51]Hearings, "Petroleum Requirements—Postwar," p. 60.
[52]*National Petroleum News,* December 25, 1946, pp. 24-27.
[53]*Standard Oil Co.* v. *United States,* 221 U. S. 1 (1911).
[54]41 Stat. 437.

prohibiting interstate shipment of petroleum produced in contravention of state law, and (b) consenting to compacts among the states to prevent wasteful production. Moreover, the Congress, recognizing that production costs were deterring the manufacture of synthetic liquid fuels, recently authorized the Department of the Interior for a limited time to construct and operate demonstration plants for the production of such fuels from coal, oil shale, and agricultural and forestry products.[55] Nor has the nation been without a foreign petroleum policy, sometimes more successful than at other times, based upon the principle of the "open door."

The following generalizations may perhaps be made in respect of the historical development of the American oil industry:

1. The industry has been owned and operated by private enterprise, with a minimum of regulation by government, either federal or state;

2. A competitive system with opportunity for small operators to establish themselves, to prosper, and to expand, has been regarded as the ideal;

3. Integration of the various branches of the business —production, refining, transportation, and marketing—has not been prohibited, with the result that some 21 efficient companies with strong financial resources have become capable of operating throughout the United States and 14 of the same companies also operate in many foreign areas;

4. No impediments have been created by the Federal Government to exploration and production abroad. The

---

[55] 58 Stat. 190.

97179 O - 47 - 4

"open-door" policy has been recognized in principle, and although foreign development has been for the most part undertaken by the operators on their own initiative and at their own risk, they have, in increasing degree, sought the cooperation of the Department of State;

5. Under the Webb-Pomerene Act,[56] American companies have been permitted to operate freely abroad in accordance with the economic and legal conditions there confronting them, so long as the antitrust laws of this country have not been violated;

6. Foreign companies have been allowed to qualify to do business in the United States, and to lease public lands therein, provided American companies were granted reciprocal privileges;

7. Except in the case of public lands, the conservation and production of petroleum, including natural gas, within the United States have been left to the jurisdiction of the state governments, with supplementary federal legislation to forbid the interstate shipment of petroleum produced in violation of state law, and to authorize interstate compacts for prevention of waste;

8. Because oil, like other minerals, is a diminishing resource, and because investments incident to exploration involve unique risks with danger of large financial loss, the Congress through income-tax provisions has allowed deductions for depletion and intangible drilling costs; and

---

[56] 40 Stat. 516.

9. The development of domestic resources by domestic companies has been regarded as worthy of protection against imported oil.

On the basis of the industrial practices and state and federal law thus far evolved the American oil industry has developed a technical "know-how" that is matchless. Proved reserves which in 1918 were only 6,200,000,000 barrels climbed to 20,826,813,000 barrels in 1945.[57] From a daily average production of crude in 1918, a war year, amounting to 975,000 barrels from 203,000 wells, the daily average rose by 1938 to 3,327,000 barrels from 369,000 wells.[58] At the same time the average price, at the service station, of a gallon of gasoline declined from 25.1 cents in 1918 to 12.75 cents, excluding tax, in 1940.[59]

Meanwhile the utility of oil for a wide variety of civilian uses became more and more apparent. The internal-combustion engine was improved. Road-building programs covered the continent with a network of good highways. The motor industry developed the mass production of automobiles.

The oil industry met the challenge. *Per capita* consumption increased from 36 gallons a year in 1900 to 367 gallons a year in 1938.[60] In 1918 the refining capacity was

---

[57]Hearings, "Petroleum Requirements—Postwar," p. 18. *The Petroleum Almanac, op. cit.,* p. 42.

[58]Hearings, "Petroleum Requirements—Postwar," p. 15.

[59]*Ibid.*, pp. 14, 36.

[60]Hearings, "Wartime Petroleum Policy under the Petroleum Administration for War," p. 248. In 1938 the annual *per capita* consumption for the rest of the world was approximately 21 gallons. (Hearings, "American Petroleum Interests in Foreign Countries," p. 406.)

1,186,000 barrels daily of crude oil against about 5,000,000 barrels at the present time.[61] In 1918 the mileage of trunk and gathering crude-oil pipe lines totaled 55,000 in contrast to the present network of 141,000 miles.[62] The United States tank-ship fleet grew from 145 oceangoing vessels of 2,000 gross tons or over in 1918 to 382 in 1938 and to 907 on September 1, 1945.[63] In 1912 the share of American companies in all foreign crude-oil production was 8.4 per cent; in 1938 it was 23.8 per cent.[64] On January 1, 1945 the total foreign reserve (proved) of American companies was 17,371,000,000 barrels or about 40.1 per cent of

---

[61]Hearings, "Petroleum Requirements—Postwar," pp. 18, 113.

[62]*Twentieth Century Petroleum Statistics,* p. 34. (Prepared in the office of the Director, Naval Petroleum Reserves, November 15, 1945.) The latter of the above-named figures includes approximately 14,000 miles of products lines.

[63]The dead-weight tonnage of these vessels in 1918 totaled 1,221,897 tons; in 1938 the total was 4,364,459 tons; and on September 1, 1945 it was 13,379,143 tons. In terms of T2-SE-A1 equivalent, the United States possessed 38.8 per cent of the world tank-ship fleet in 1938, and 59.8 per cent thereof on September 1, 1945. (Hearings, "War Emergency Pipe-line Systems and Other Petroleum Facilities," p. 280.) As a result of the emergency of the late war, which required capital expenditure beyond even the resources of the oil industry, a huge fleet of Government-owned tankers came into being. On April 1, 1945 the flag of the United States was flying over 54 per cent of all world tanker tonnage (d. w. t.) as contrasted with 26 per cent on September 1, 1939. (Hearings, "Wartime Petroleum Policy under the Petroleum Administration for War," pp. 199-200, 210-211.) The Government of the United States thus became the owner of 74 per cent (d. w. t.) of the present United States fleet. (Hearings, "War Emergency Pipe-line Systems and Other Petroleum Facilities," pp. 272, 317.)

[64]Hearings, "American Petroleum Interests in Foreign Countries," pp. 189, 192.

all foreign reserves.[65] In 1938, the last normal year, United States production was 60.6 per cent of world production; and during the war years 1941-1944 nearly 65 percent of the world's estimated total production was supplied from wells in the United States.[66] With only 6 per cent of the world's land surface the United States for the last 40 years has produced annually more than one-half of the world's total supply of crude.[67]

A petroleum program that has yielded these magnificent results would seem to require no radical change. On the other hand, this country may not wisely conclude that the wells will never run dry, nor that the reserves which its explorers have discovered abroad will always be available. Considerations of national security demand everlasting vigilance. In this troubled world, which has not yet learned how to avoid war, the oil policy of this nation while at peace must nevertheless be governed by the inexorable demands of self-preservation.

NATIONAL DEFENSE

If the United States should become engaged in a war waged wholly or partially outside its boundaries, the availability of oil from American reserves near the foreign thea-

---

[65] *Supra*, p. 19. The British-Dutch position on that date was also about 40 per cent. The remaining 20 per cent was owned by all other foreign interests, including the government-operated reserves in Argentina, Bolivia, Mexico, and Russia aggregating in those four countries nearly three-fourths of the said 20 per cent. (Hearings, "American Petroleum Interests in Foreign Countries," pp. 200-201.)

[66] Hearings, "Wartime Petroleum Policy under the Petroleum Administration for War," p. 115.

[67] *Ibid.*, p. 115.

tre of hostilities would be advantageous. To the extent that the war were waged within or near the continental United States, the reserves within this country would be of paramount importance.

It should not be assumed that all future warfare will occur beyond our boundaries. If invaded we would naturally rely first upon local oil reserves. If production from these were inadequate and if the United States controlled the sea, supplementary oil might be imported. However, it should not be assumed, particularly in the light of our experience with hostile submarines off the Atlantic coast in the last war, that the United States would at all times be in control of the routes between our ports and our petroleum reserves situate abroad. This is not to imply that American petroleum interests abroad should receive only lukewarm diplomatic protection, or that we should not emphasize exploration and development of our concessions in other lands. Quite the contrary should be our policy because those reserves will add to prosperity in time of peace and may under certain conditions of warfare be highly useful. But, in the final analysis, the reserves within our own borders are more likely than not to constitute the citadel of our defense.

It follows that nothing should be done to weaken the productive capacity of domestic reserves, and that every possible step should be taken both to increase these reserves and continuously to develop them to such a degree as would occasion no regret in the event of war.

If the nation during wartime were called upon to supply all its military and essential civilian requirements from reserves located in the United States, and if the war were conducted on a large scale, the task could not be accom-

plished from the reserves now known. The presence of proved reserves in excess of 20,000,000,000 barrels does not mean that a mere turn of the valves will yield production in any desired amount. There is a limit at which a given supply can be made available. Thus, it is a physical impossibility, even disregarding maximum efficient rates, to produce say one-fourteenth of the reserve supply annually for 14 years. Many an old well, now giving up but small quantities each day, is expected to produce for 20 years to come. The oil will not flow out of the reservoir rock any sooner. Moreover, the nation no longer enjoys the comfortable margin between production and productive capacity prevailing in 1941.[68]

To say that imports from the Caribbean area can be utilized in wartime by virtue of our control of the Caribbean is too hazardous a program. Our naval bases and tankers are subject to destruction, to say nothing as to the possibility of attack on the foreign petroleum fields themselves.

The answer is to be found in synthetic production. Synthetic gasoline can be produced from natural gas at costs similar to present costs of producing domestic gaso-

---

[68]"It was fortunate indeed that the United States was able to enter the war with a million barrels per day of reserve productive capacity. Probably the most important lesson learned from the war is the need to maintain an adequate reserve productive capacity, and hence the need to keep the petroleum industry in an environment which will permit it to regain and retain the position of readiness in which it entered World War II."—Philip H. Bohart, Director of Production Division, Petroleum Administration for War, in statement before the committee, November 28, 1945. (Hearings, "Wartime Petroleum Policy under the Petroleum Administration for War," p. 81.)

line from crude petroleum.[69] Oil shale and sub-bituminous coal and lignites also can be utilized to produce gasoline and other liquid fuels at a cost which research has already reduced from 14 to about 8 cents per gallon above that of producing gasoline from crude.[70] These sources of supply, it is estimated, are capable of meeting all domestic petroleum requirements for many centuries.[71] In view of these facts it is folly to be apprehensive that this nation is facing a shortage of liquid fuel. But it behooves the nation as soon as possible to take bold steps in the direction of synthetic production so that such production can become readily geared into the oil economy.

Until such time as synthetic production costs are not in excess of those of production from crude oil, there will be a natural temptation in peacetime to meet domestic deficiencies with imported petroleum. But to the extent that

---

[69]Hearings, "Petroleum Requirements—Postwar," p. 69. The present gas reserves are of the order of magnitude of 200 trillion cubic feet. Such reserves may eventually be of even greater importance than our present proved oil reserves. (Hearings, "New Sources of Petroleum in the United States," pp. 26, 54-58.) With natural gas costing about 4¢ per 1000 cubic feet, it is claimed that gasoline can be produced therefrom at 5½¢ per gallon. The current cost of producing gasoline from crude is about 5½¢ per gallon. (Letter from R. R. Sayers, Director, Bureau of Mines, to the chairman of the committee, December 6, 1946.)

[70]Hearings, "Petroleum Requirements—Postwar," pp. 69-71. Further, it should not be overlooked that the cost of oil production in the United States has been rising, owing to the increased expense for exploration and development. "As far as can be anticipated at present, there is good justification for the belief that oil from shale may soon be produced at a cost that will bring it within competitive range of the petroleum industry."—R. R. Sayers, letter cited *supra*, note 69.

[71]Hearings, "New Sources of Petroleum in the United States," pp. 26-27; "The Independent Petroleum Company," p. 399.

the volume of imports is permitted to grow during such period, the nation-wide industrial plant necessary for synthetic production will fail to emerge through private investment. This is not to say that the manufacture of synthetic fuel should be fostered by a governmental policy designed to force prices up, thereby rendering such manufacture commercially profitable, but rather that the Bureau of Mines should continue to build and operate demonstration plants, and to conduct research, pursuant to the authority conferred by the Act of April 5, 1944,[72] to the end that the transition may be made promptly at the appropriate time.[73]

Prior to the transition, it must ever be borne in mind that crude reserves in the ground, no matter how vast, are useless in an emergency unless they are producible to meet the emergency. It requires skilled manpower, expensive equipment, and a long period of time to drill an oil well. Moreover, daily yields are physically limited in volume. After the oil reaches the surface it must find transportation by pipe line, tanker, barge, tank car, or tank truck, or by a combination of these. Then it must be refined, and the various products thereafter distributed. To do these things upon arrival of emergency requires that certain conditions exist during the period prior to the emergency. Thus, laboratories of research must be maintained; geological and engineering expertise must uninterruptedly progress; wildcat drilling must flourish; patient exploration must take place; and an industrial *esprit de corps* unhampered by governmental or monopolistic encumbrances or restraints must illumine the whole.

---

[72] 58 Stat. 190. (O'Mahoney-Randolph Act.)

[73] Hearings, "Petroleum Requirements—Postwar," p. 71.

97179 O - 47 - 5

AMERICAN PETROLEUM INTERESTS IN FOREIGN COUNTRIES

Too little understood is the place in our modern economy occupied by the American oil companies operating abroad. They have achieved by their initiative a dominant position in foreign commerce, a position which is maintained, upon the one hand, by contracts, concessions, and understandings with various governments and, upon the other hand, by the routine functions of trade in the refining and distribution of their products. These companies have, therefore, an impact both in the political and in the economic sphere.

In the political sphere, they have relations not only with the governments of the countries where petroleum is produced, but with the governments of the countries where petroleum products are sold and where, not infrequently, the object of the foreign government is to establish some form of state monopoly or cartel by which the course of commerce in petroleum will be guided as the government may desire.[74] Then, too, these companies have relations with the Government of the United States, whereby they endeavor to keep the Department of State advised as to their current activities and programs to the end that the same will not be contrary to American foreign policy and that the companies will be in a position to request prompt diplomatic protection when necessary.[75]

---

[74]Hearings, "Foreign Contracts Act," pp. 138-189, 256-258.

[75]Hearings, "American Petroleum Interests in Foreign Countries," pp. 101, 121. For example, when the celebrated "Red Line Agreement" affecting the Persian Gulf area was in the making, A. C. Bedford, the chairman of the board of directors of the Standard Oil Co. (N. J.), called at the De-

In the economic sphere, the foreign operations of American oil companies constitute a major factor in world trade. These operations, moreover, are not a thing apart from the domestic oil industry—indeed, they are closely meshed with it. The companies which engage in foreign operations do so as a part of their over-all activity, either directly or through subsidiaries and affiliates. Hence, the financial position of the companies is strengthened by the profits of world trade, thereby benefiting directly hundreds of thousands of stockholders including over 42,000 banks, 700 insurance companies, and 3,700 charitable or educational institutions.[76]

---

partment of State to ascertain the Government's attitude in relation to the progress of the negotiations undertaken privately with British interests for American participation in the development of the Mesopotamian oil fields. The Department took the position that participation by American companies in the Turkish Petroleum Company would be unobjectionable under the American policy of the "open door," provided that all interested American oil companies had been accorded an opportunity to share in the arrangement, and that no attempt were made to establish a monopoly in favor of the Turkish Petroleum Company, or any other company. However, while Secretary Hughes in his letter of August 22, 1922 to the president of the Standard Oil Co. (N. J.) made no objection to the proposal that the participants obligate themselves not to be interested in former Ottoman territory beyond the borders of Mesopotamia except through the medium of the Turkish Petroleum Company, he declared that the said proposal would not affect the attitude of the United States Government in the diplomatic protection of American interests in such areas. (*Diplomatic Protection of American Petroleum Interests in Mesopotamia, Netherlands East Indies, and Mexico, op. cit.*, pp. 20-21. See also hearings, "Foreign Contracts Act," pp. 158 ff.)

[76]Hearings, "American Petroleum Interests in Foreign Countries," p. 290. The Socony-Vacuum Oil Co., Standard Oil Co. of California, Standard Oil Co. (N. J.), and The

Practically all oil imported into the United States is produced by American companies, and, of course, a goodly portion of the purchase price eventually finds its way to American stockholders. The United States Treasury also receives large sums in duties and income taxes arising from these foreign operations. The purchase in this country of drilling machines, pipe lines, and refinery equipment for foreign installation involves an annual expenditure of many millions of dollars. Moreover, it is urged frequently that the increased purchasing power of the foreign oil-producing countries, all of which benefit economically from the American pioneer who so often has been the first to tap the underground resources of distant regions, is reflected in increased exports from the United States in response to the stimulated demand for American-made goods.[77]

There is, however, another side of the picture. The American companies which possess the financial resources to enable them to operate abroad and to sit across the bargaining-table from monarchs and foreign diplomats are few in number, but they heavily outweigh in the scope of their operations the hundreds of small companies which

---

Texas Co.—the four participants in the projected venture by which Saudi-Arabian oil is to be made available for distribution under a single managerial policy (*supra,* p. 11 *n.*) had a total of 470,752 stockholders as of December 31, 1945. (*Moody's Manual of Investments, American and Foreign, Industrial Securities, 1946,* pp. 1907, 2286, 2522, 2689.) Of course, this total includes numerous duplications, but it still is correct to say that these four companies have a larger number of stockholders in the aggregate than all but a few municipalities in the United States have inhabitants; indeed, a greater number than the population of some of the states of the Union.

[77]Hearings, "American Petroleum Interests in Foreign Countries," pp. 290-296.

function independently in the domestic oil industry.[78] These "independent" companies look with considerable apprehension toward the threat of oil imports into the United States by the comparatively few American corporations operating abroad which control a vast productive potential.

In 1938, before the magnitude of the Middle Eastern oil resources was generally comprehended,[79] South American oil moved into Europe, to a large extent through the instrumentality of American companies, at the rate of 298,000 barrels daily. In addition, 188,000 barrels daily were exported from South America to the United States. At that time Europe imported oil from Iran and Iraq at the rate of only 171,000 barrels daily.[80] Now, in the year 1947,

---

[78]Thus, in respect of refining operations, while there are in the United States approximately 234 "independent" refining companies with 257 plants having a reported capacity, in terms of crude runs to stills, of about 750,000 barrels daily (Hearings, "The Independent Petroleum Company," pp. 189, 208), there are but five American companies with significant refining investments abroad, namely, Standard Oil Co. (N. J.), Standard Oil Co. of California, The Texas Co., Socony-Vacuum Oil Co., and Sinclair Oil Corp. (Hearings, "American Petroleum Interests in Foreign Countries," pp. 205-208.) There are 66 American-owned refineries in foreign countries, operated by 12 companies, with an estimated crude-distilling capacity in excess of 876,000 barrels daily. (*Ibid.*, pp. 201-208.) In 1944, crude runs to stills in the United States by 21 major companies averaged about 3,800,000 barrels daily, which constituted 83½ per cent of the runs for the entire United States. (Hearings, "The Independent Petroleum Company," pp. 55, 188-189.)

[79]The total new reserves to be discovered in the Persian Gulf area may ultimately exceed 150,000,000,000 barrels. Approximately one-third of the prospective part of this area lies within the Saudi-Arabian concession, owned by the Arabian American Oil Company. (James Terry Duce, "Aramco Concession," *The Texaco Star*, Saudi Arabian Number, 1946, p. 16, citing Joseph E. Pogue's estimate.)

[80]Hearings, "Foreign Contracts Act," p. 135, Exhibit F.

with increasing production in the Middle East, improved facilities for pipeline transport to the Mediterranean from the Persian Gulf, and more efficient arrangements for European marketing,[81] a problem is posed for the producer in South America and for the producer in the United States. The question is being heard: "Will Middle Eastern oil displace South American oil in Europe and thereby turn the latter stream toward the United States?"

The Independent Petroleum Association of America, in a brief presented in December 1946 to the Committee for Reciprocity Information (Washington, D. C.), pointed to the increasing flow of petroleum imports which, during the first nine months of 1946, reached an average of 378,000 barrels daily as compared with an average of 160,000 barrels daily imported by the United States during the four years 1936-1939. Exports from the United States during the same nine months of 1946 declined by 35,000 barrels daily from the average during the four years 1936-1939.

It is not intended in this report to enter upon a discussion of reciprocal trade policies, and these facts in respect of increasing imports and decreasing exports of crude petroleum and its products are cited only to illustrate the impact on the domestic oil industry of the foreign operations of American companies. The facts are that a torrent of foreign oil could be released on our shores and that imports are already rising rapidly and net exports declining. An inundation by low-cost foreign oil could not help but injure the secondary recovery of domestic oil; it would stifle many an independent enterprise which, to exist, must make a profit under the high-cost conditions prevailing in

[81] *Supra,* pp. 11 *n.*, 13 *n.*

the United States. The danger of this flood is what the "independent" domestic producer fears.

These facts, on the other hand, must be viewed against the background of the increasing use of petroleum and the slowing-up of important domestic discoveries. Since the turn of the century petroleum has been fast growing in importance as a source of industrial energy. In 1944 petroleum and natural gas furnished to the nation ⅞ths as much energy as coal, whereas in 1900 they furnished only 1/14th as much as coal.[82] Since the termination of the recent hostilities a tremendous peacetime impetus has been given to the utilization of oil as a fuel. The Diesel engine is displacing the steam locomotive on American railroads; the bituminous coal-mining industry is losing a substantial portion of its market to oil; and it is obvious that, unless a national policy to the contrary be adopted, the time might well arrive, in view of diminishing discoveries at home, when the domestic petroleum operator would be at a severe disadvantage in competition with the American petroleum operator who was in a position to meet the demand with imported oil. However, the American investment in foreign oil operations could continue to yield a financial return, and at the same time the domestic oil producer remain in business, if the aims of world statesmen were diverted toward the ways of peace and the raising of the standard of living of the people everywhere.

In 1938 the United States and Canada, with less than 7 per cent of the world's population, consumed 62 per cent

---

[82]Hearings, "Wartime Petroleum Policy under the Petroleum Administration for War," pp. 241-242, and see Chart No. 36 facing p. 252.

of all petroleum that was consumed in the world.[83] The *per capita* consumption in the United States and Canada for that year was 353 gallons. During the same twelve months the consumption in Australia and New Zealand was 122 gallons; in Russia, 41; in Latin America, 39; in Europe, 31; in Africa, 9; and in Asia, 4 gallons.[84] The great preponderance of consumption in North America is explained principally by the fact that the people of the United States and Canada have a standard of living and an industrial plant which create a far greater demand for petroleum than elsewhere in the world.

It would seem apparent that the danger of a world surplus of petroleum flowing into the United States to destroy the market of the "independent" oil operator could be readily averted by an increased industrialization in foreign countries and by an improvement of living standards whereby the use of motor vehicles would become more general throughout the world.[85] That such a possibility is

---

[83]During the same year Europe (exclusive of Russia) consumed only 15 per cent; Russia's proportion was 8 per cent; Latin America's, 6 per cent; all Asia used only 5 per cent; Australia and New Zealand consumed 1½ per cent; and all other countries, the remaining 2½ per cent. (Hearings, "Wartime Petroleum Policy under the Petroleum Administration for War," p. 248, and see Chart No. 39 facing p. 252.)

[84]*Ibid.*, pp. 248-249, and see Chart No. 40 facing p. 252.

[85]For the year 1938 United States registrations totaled 31,568,000 private and commercial cars, or 68 per cent of the world total. However, foreign registrations increased markedly in the inter-war period. In 1919 foreign registrations were only 14 per cent of the world total but they rose to 32 per cent for 1938, or, expressed in number of vehicles (excluding motorcycles), the foreign total in 1919 was only 1,287,000 but in 1938 was 14,773,000. Foreign motorcycle registrations far exceed those in the United States, which

not mere fancy is demonstrated by the fact that the gasoline demand in foreign countries during the period 1927-1938 showed an average increase of approximately 19,000 barrels per day annually, or 4 per cent per year, whereas in the United States the gasoline demand in the same period increased an average of about 24,000 barrels per day, or 2.1 per cent per year. It should also be noted that for the same period the demand for all petroleum products abroad, excluding Russia, almost doubled, whereas in the United States the consumption increased about 50 per cent.[86]

The prospect of improved living standards abroad is further enhanced by the manifold benefits to foreign countries through the very presence of the American oil investment therein. Likewise the social and educational benefits, resulting from the American investment and the policies of the companies, are manifold. Thus, in 1937, royalties and taxes paid in all foreign countries by American petroleum companies exceeded $687,000,000.[87] Thousands of the nationals of these countries find welcome employment, skilled and unskilled, by the oil companies, and other thousands find employment indirectly as the result of such large-scale operations.[88] Homes, hospitals, schools, high-

---

had only about 110,000 out of a world total of 3,515,000 in 1938, or 3.1 per cent. Over 3,000,000 motorcycle registrations were in Europe before the war, and over half of those were in Germany. (Hearings, "American Petroleum Interests in Foreign Countries," pp. 405-410.)

[86] *Ibid.*, p. 406.

[87] *Ibid.*, p. 255. About one-third of the total revenue of the Venezuelan government is contributed by the petroleum industry. American capital constitutes about 62½ per cent of the total foreign oil investment in Venezuela. *Ibid.*, p. 265.

[88] *Ibid.*, pp. 254-270.

ways, port works, power and light plants, telephone and telegraph lines, airports, water wells, facilities for drainage, irrigation, sanitation, etc., have been constructed in many parts of the world where they had been rarities.[89] It is of small moment that some of these improvements were motivated by a policy designed in the long run to profit the companies. The local benefits are no less real because business enterprise is sufficiently enlightened to cultivate goodwill.

It is obvious that operations in sparsely populated and remote areas, often in swamps, jungles, and deserts, are extremely costly. When, added to such costs, there is taken into consideration the gamble inevitable in all oil exploration, it is apparent that only companies with vast financial resources could undertake such enterprises. For example, a sum in excess of $60,000,000 was expended before the first oil was shipped from the Barco concession in Colombia, 23 years after the original acquisition of the concession by American interests. In Venezuela the Creole Petroleum Corporation spent $42,000,000 between the date of first investment (1920) and the date of first discovery (1928); and before the first oil was commercially marketed two years later, the company invested $6,000,000 more.[90]

Political risks also attend foreign oil operations, ranging from governmental competition, compulsory refinery installation, and trade and exchange control on the one hand, to revision or cancellation of contracts and outright expropriation on the other. In this hemisphere, Bolivia and Mexico took the initiative in nationalizing their petroleum

---

[89]Hearings, "American Petroleum Interests in Foreign Countries," pp. 271-289.

[90]*Ibid.*, pp. 226-243.

deposits and in expropriating foreign oil properties.[91] In Europe, American oil interests which had made substantial investments in Rumania and Austria and had pioneered discoveries in Hungary now find their holdings after the war under control of Russia which previously expropriated American oil properties acquired under the Empire. Oil lands which have been prospected and developed in Saudi Arabia, Kuwait, Bahrein Island, and throughout the Iraq-Iranian areas are involved in the conflicting politico-economic ambitions of Russia, Britain, France, and The Netherlands, to say nothing of the United States and the inhabitants of Palestine. Across the Indian Ocean in Sumatra the native population is assuming power, and an independence movement has threatened to upset the traditional concepts under which oil concessions were granted and oil interests acquired in the Netherlands East Indies. The new Indonesian government is re-examining these contracts and apparently is demanding at the very least that the Republic be recognized, in lieu of the former Dutch administration, as the successor party to the contracts.

With the Labor government in England pursuing a policy of nationalization at home in respect of the coal industry—although abroad striving to maintain the structure of empire—and with the Soviets pursuing a policy of communism, the rising native governments have example enough to cause them to assume that prewar standards of dealing with natural resources require modification.

Thus is posed a thorny question of foreign policy for the United States. A foreign policy, simple enough when it involved chiefly the exercise of the Government's persuasive diplomatic authority for the preservation of eco-

---

[91]Hearings, "American Petroleum Interests in Foreign Countries," pp. 87 ff., 246-249, 311-312.

nomic conditions under which Americans could operate abroad with a minimum of difficulty, becomes complex indeed when it concerns the activities of modern corporate giants, the ambitions of totalitarian states, declining empires, and revolutionary uprisings.

Prior to the war of 1914-1918 American diplomatic policy was not different for oil from what it was for any other commodity in world trade. Our policy then was designed primarily to uphold the right of American nationals to export to foreign countries on equal terms with foreign exporters. But after 1918 the American oil companies enthusiastically applied their great technological skill and financial resources in a successful search abroad for new fields to develop, spurred by the vigorous support of the Department of State sustaining the principle of the "open door,"[92] and by a widespread fear of an impending oil shortage.[93] Now that the few American companies strong enough to operate abroad are dealing with some foreign governments almost as equals, and three-quarters of the world is worshiping at strange economic shrines, we find ourselves in a new chapter. Diplomatic policy now must be directed toward the establishment of a world economy free from the restraints of monopoly, whether practiced by government, by private cartel, or by a union of government and cartel.

An indispensable corollary of American oil activity in foreign countries, whether primarily producing or consuming countries, is the creation of an economic climate where-

---

[92]See *Diplomatic Protection of American Petroleum Interests in Mesopotamia, Netherlands East Indies, and Mexico, op. cit., passim.*

[93]Hearings, "American Petroleum Interests in Foreign Countries," pp. 298 ff.

in world trade can breathe. To the degree that foreign governments, acting with an eye only to immediate economic advantage, impose severe restrictions, American oil operations abroad will suffer. To be sure, in the absence of a treaty to the contrary, a foreign government is at liberty under international law to legislate to the detriment of foreign business, provided the legislation is of general application and does not deprive foreigners of their lawfully acquired property without adequate compensation. However, it is to be earnestly hoped that all governments will take early steps to create a world economy fostering trade among the nations, and that by international agreement and education the markets of the world will be opened to the international merchant in a spirit of welcome for the goods he offers in exchange for the products of the importing country. Assuredly the inspiring growth of world trade from the days of the ancient Phoenicians and through the period of the Crusades to its modern burgeoning in the Age of Discovery and its rapid development after the Industrial Revolution ought not shrivel in the twentieth century. It will not shrivel if men recognize that the prosperity of trade is measured by the number of people who may with profit participate in it, and if the nations of the world will keep the door of opportunity open to all.

There can be no doubt that the American companies have achieved the position of leadership they now enjoy not by withdrawing in the face of artificial and discouraging conditions imposed by foreign governments but by adjusting themselves to the laws and practices of the countries where they found themselves.[94] Originally an American

[94]"The one inescapable fact," testified Laurence B. Levi, executive in charge of foreign operations of the Socony-Vacuum Oil Company, "is that American companies, if they are

company would have had nothing to fear from the antitrust laws in entering into many of these foreign arrangements,[95] but beginning with the *Sisal* case in 1927[96] it became clear that acts, although performed outside the United States, would violate the antitrust laws if such acts related to and were in direct restraint of trade in the United States. Essentially, however, the *Sisal* case did not introduce novel doctrine, and American companies still had no cause to hesitate where the agreement did not relate to United States trade.

Of late, however, the question has presented itself to what extent an American company may safely go in complying with foreign regulations or indirect pressures, and still not offend the antitrust laws of the United States. Related to this question is the proper delimitation of the scope of the antitrust laws insofar as world trade is concerned.[97] An American company which ventures its capital abroad is entitled to know with a reasonable degree of certainty whether a prospective course of action is not unlawful under the statutes of the United States, if for no other reason than that a wrong choice may affect the extent of diplo-

---

to continue to carry on business abroad, must be in a position to meet, in each particular country, the conditions existing there. In other words, an American concern desiring to carry on business in those areas must 'do as the Romans do' or suffer the consequences." (Hearings, "Foreign Contracts Act," pp. 165-166.)

[95]See *American Banana Co.* v. *United Fruit Co.*, 213 U. S. 347 (1909).

[96]*U. S.* v. *Sisal Sales Corp.*, 274 U. S. 268 (1927).

[97]The nebulous compass of the antitrust laws in their application to commerce with foreign nations is well illustrated in a colloquy on May 17, 1945 between former Attorney-General Biddle and the committee's counsel. (See Hearings, "Foreign Contracts Act," pp. 20-22, 170-171.)

matic protection. By the same token the Government is entitled to know at least in outline the principal programs and prospective foreign commitments of American petroleum companies. Although monopolistic practices may be unpopular and unsound, yet American oil interests abroad, if disqualified from participating in trade under the foreign rules and customs, may easily lose position to alien competitors.[98] This, then, is a dilemma of national petroleum policy which calls for decision.[99]

Size alone does not constitute monopoly. Indeed, bigness is frequently essential in modern industry for the greatest efficiency, and has other advantages of importance to society.[1] The attainment of a dominant position in the business world, acquired through honest effort, is not a violation of the law. It is only the unfair methods of trade, which seek to destroy or exclude competitors by means of intercorporate stockholdings, or by agreements

---

[98]"Monopolies and closed economies are unsound, and we are opposed to them," Mr. Levi told the committee, but then he went on to add: "Nevertheless, the trade agreements in foreign countries regulating their domestic marketing, where conditions may differ from ours, are considered by many governments as meeting the needs of their national economies. There is no doubt several foreign-owned oil companies stand willing and able to take the place of any American company which does not participate in these agreements." (Hearings, "Foreign Contracts Act," p. 164.)

[99]In a thoughtful statement to the committee Alfred Jacobsen, president of the Amerada Petroleum Corporation and chairman of the national oil policy committee of the Petroleum Industry War Council, said: "The solution which the American companies would prefer would be to see such countries persuaded by our State Department to open up their oil markets to free competition." (Hearings, "The Independent Petroleum Company," p. 381.)

[1]Peter F. Drucker, *Concept of the Corporation,* pp. 209-229. (New York, 1946.)

between present or potential competitors, whereby control of commerce among the states or with foreign countries is secured, that are anathema to the people of the United States.[2] But how far shall we go in advancing beyond our borders the principles of the laws against restraint of trade?

It may be doubted whether we can abandon our defense of free competitive enterprise at the water's edge and still expect it to survive even within our own borders. At the same time the nation can ill afford to hazard the position of our petroleum interests in foreign lands by a unilateral policy which might not yield corresponding benefit.

As one step toward the solution of this difficulty confronting American oil companies abroad, in common with other types of business, the Congress might consider the enactment of legislation requiring, with appropriate safeguards, American companies to register with some agency

---

[2]George W. Wickersham, *The Changing Order,* p. 141. (New York, 1914.) Perhaps no one has more eloquently expressed the basic meaning of the antitrust laws than President William Howard Taft in a special message to Congress on January 7, 1910, wherein he recommended a national incorporation law. Speaking of the methods of some large business enterprises, he said: ". . . if they attempt by a use of their preponderating capital and by a sale of their goods temporarily at unduly low prices to drive out of business their competitors, or if they attempt, by exclusive contracts with their patrons and threats of non-dealing except upon such contracts, or by other methods of a similar character, to use the largeness of their resources and the extent of their output compared with the total output as a means of compelling custom and frightening off competition, then they disclose a purpose to restrain trade and to establish a monopoly and violate the act." (James D. Richardson, *Ed., A Compilation of the Messages and Papers of the Presidents,* Vol. XVI, p. 7450. Edition published by Bureau of National Literature, Inc. New York.)

of the United States Government copies of such foreign contracts as by their terms involve the types of trade-restraint defined in the statute.[3]

Any broad solution, however, will have to be undertaken on an international scale by international conference. Difficult though it is proving to be to make progress toward a peaceful society, nevertheless this nation should press unremittingly and with all the peaceful processes at its command for general acceptance of the principle of fair and friendly trade among the nations of the world. When freedom of opportunity is preserved, free enterprise is preserved. The essential condition of such preservation in foreign oil operations is an international understanding that control of this natural and indispensable resource shall not be used for exploitation of the native peoples in the producing countries, or of the users of oil in the consuming countries.[4] In a world genuinely devoted to peace and genuinely interested in the promotion of international trade and the raising of living standards, Americans doing busi-

---

[3]The committee, sitting jointly with a subcommittee of the Committee on the Judiciary, held hearings on S. 11 (79th Cong., 1st sess.) embodying a proposal of this type. See hearings, "Foreign Contracts Act." Reference should also be made to the hearing on S. 1476 (78th Cong., 1st sess.), the predecessor of S. 11 aforesaid, by a subcommittee of the Committee on the Judiciary, on May 23, 1944, at which hearing Ralph W. Gallagher, president, and Orville Harden, vice-president, of the Standard Oil Co. (N. J.), testified.

[4]It should be observed that the consumers in certain European countries, for example, are often required to pay extremely high prices for gasoline and other petroleum products because of local duties and taxes. Sometimes such duties and taxes constitute as much as 77 per cent and even 84 per cent of the retail price. (Hearings, "American Petroleum Interests in Foreign Countries," pp. 411-417.)

ness abroad will seldom be there confronted with practical situations posing difficult questions of antitrust law.

PUBLIC LANDS

The public-domain lands potentially valuable for oil or gas production are concentrated mainly in California, Colorado, Montana, New Mexico, and Wyoming.[5] Although for the past several years the production from the public domain has averaged only a little more than 3 percent of the total production in the United States,[6] the unexplored potential oil areas within the public domain are relatively large, and it is not unreasonable to assume that the percentage of total production derived from the public domain will show an increase in the years to come.[7]

In general, public-domain land is interspersed with patented land and state-owned land, and, in view of this varied ownership in prospective oil or gas areas, the federal-owned lands must necessarily be explored or developed simultaneously with lands under other ownership, and *vice-versa.* It follows that unduly restrictive laws or regulations governing the lands of either type may preclude the testing of an area, and that to the extent practicable the leasing provisions for federal lands should conform to those under which state and private lands are leased.

---

[5]Hearings, "New Sources of Petroleum in the United States," p. 454.

[6]*Ibid.,* p. 456. In 1941, when the United States total was 1,400,000,000 barrels, the public-domain production was 46,000,000 barrels; in 1945, the total for the United States was 1,700,000,000 barrels, and the public domain produced 57,000,000. *Ibid.,* pp. 456-457; *The Petroleum Almanac, op. cit.,* pp. 39, 42.

[7]Hearings, "New Sources of Petroleum in the United States," pp. 457-459.

In December 1942 the Congress enacted a law which offered an inducement to the prospector by granting during the national emergency a flat 12½ per cent royalty rate for new discoveries on federal leases bearing a higher royalty rate.[8] The results were gratifying.[9] In August 1946 the Congress took still further steps toward conforming the mineral leasing laws more nearly to the practices in vogue by the states and by private lessors.[10] Among the principles embodied in the new legislation, which is expected to encourage oil exploration and development on the public domain, is the flat 12½ per cent royalty rate for future noncompetitive leases and also for existing noncompetitive leases under certain conditions.

In addition to the public-domain lands within the United States, the Federal Government also owns extensive areas commonly referred to as "acquired lands." The extent of such holdings has never been accurately tabulated, but rough estimates place the total at 150,000,000 acres.[11] These lands are not subject to the mineral leasing laws covering the public-domain lands. Some of the acquired lands have been leased for oil or gas development, but it

---

[8]56 Stat. 1080.

[9]For the period from January 1, 1943 to July 1, 1946 there were 55 new oil pools and fields, and 11 new gas pools and fields, discovered on public-domain lands. In 1944 there were drilled on the public domain in the five principal oil-producing public-land states a total of 123 wildcat wells, whereas in 1942 the total was 68, and in 1941 was only 58. (Data received by committee from Harold J. Duncan, chief, Conservation Branch, Geological Survey, Department of the Interior. See also hearings, "New Sources of Petroleum in the United States," p. 469.)

[10]Hatch-O'Mahoney Act of August 8, 1946.

[11]Hearings, "New Sources of Petroleum in the United States," pp. 196-198.

is clear from evidence presented to the committee that exploration of acquired lands has been retarded (a) by lack of statutory authority to lease, (b) by divided jurisdiction among various departments of government, and (c) by a want of uniformity in policy and leasing procedure.[12] The Senate should give early consideration to the various post-war problems arising from the large amount of recently acquired lands, both as to their disposal and as to their mineral deposits.

In addition to such legislation it is submitted that the Senate consider the advisability of discontinuing certain naval petroleum reserves and of assimilating them to other public lands under the jurisdiction of the Department of the Interior. The total estimated recoverable oil from the three naval petroleum reserves, other than Alaska, is only 376,000,000 barrels.[13] It is obvious that the amount of oil producible daily from these modest reserves would constitute but slight assistance in the event of war. As has been demonstrated, the huge supply requisite for war purposes can best be assured by the existence of a strong private industry which is already in full operation when the emergency occurs. Therefore, it is submitted that the naval petroleum reserves of Buena Vista Hills, Teapot Dome, and Elk Hills be discontinued as such, and that they be administered in the future by the Department of the Interior as other public lands. As to the naval reserve in Alaska it is too early to draw conclusions because exploration there has only started.

---

[12]Hearings, "New Sources of Petroleum in the United States," pp. 197 ff.

[13]*Ibid.*, p. 260.

THE INDEPENDENT COMPANY

At home, as well as abroad, a national oil policy based upon the principle of free enterprise would not only safeguard the position of the "independent" against restraints of trade, but would recognize the handicaps imposed by inequitable tax laws and the preponderant weight of the financial resources of the integrated "majors." Small producers, small refiners, small retailers, all find it difficult to compete with the majors which engage in all three branches and in transportation as well. If the big company desires a certain street corner for the retail sale of gasoline, it can usually get it. Lack of financial resources limits the ability of the independent to withstand pressure as well as competition and, in the case of the producer, tends to induce the sale of proven properties by the wildcatter to the major. The wildcatter must turn over his capital, but the major can hold the property in idleness until a favorable time for production.

The majors are corporations with thousands of stockholders of small average holdings, whereas the independents are frequently the ventures of comparatively few stockholders. Again, the major is less affected by the life expectancy of its managers or stockholders, because its executives are drawn from an ample reservoir of talent, and because its stockholders normally do not exercise executive functions. On the other hand, when the founder of a small independent dies, there is often no one among his heirs to succeed him, and the inheritance tax frequently deals such an enterprise a severe blow. These are considerations which emphasize the necessity of antitrust enforcement, and of revision of the tax laws to remove the apathy

toward investment of private capital in independent enterprise.[14]

It may be assumed that none of the major companies would welcome an industrial theater where only large companies occupied the stage. In such a drama government itself would soon become the protagonist. Equally it may be assumed that the small companies would view with grave apprehension the disappearance of the major enterprises. The present ready market at the well afforded by the large companies, their transportation and distribution systems which make possible a wide consumer market, their research programs, and their function in the national defense would be lost or greatly minimized if the growth of enterprise were limited by law.

In brief, it is recognized that a big man is not necessarily a bad man. Nor is a small man necessarily a good man.[15] The primacy of the United States in the oil world

---

[14]Hearings, "The Independent Petroleum Company," pp. 193 ff., 368 ff., 403-424. In the course of a valuable statement to the committee by Fayette B. Dow, he pointed out that, "Recognition should be given to the fact that what might be considered big business in one industry may be very small business in another. In the oil industry a typical independent refining company may have an investment of 2 or 4 or 6 million dollars, or more than that, but it would still be a small enterprise, a hazardous and marginal enterprise, compared with its major competitors. Under the present tax law the Federal Government will take 38 per cent of net taxable corporate incomes of $50,000 or more regardless of the size of the various enterprises, their need of new capital, or, if estimated in terms of assured continuous earning power, of their ability to pay. So it is suggested that consideration be given to increasing the level of net taxable incomes at which the maximum rate applies and of modifying the rates of taxation on corporate incomes below that level." *Ibid.*, p. 202.

[15]But it is sometimes said, "A good little man is always out of his class when he meets a good big man!"

prevails in large measure because of the spirit which animates those who have ventured their fortunes, and at times their lives, in the vast foreign enterprises that only the strongest companies can undertake. And in large measure is American primacy owing to the wildcatter in the United States who on a shoestring and a prayer doggedly drills his well, be it dry hole or East Texas. Probably two-thirds of the wildcat wells in this country are drilled by independent producers as distinguished from the 20 or so major companies.[16] Approximately one-sixth of the total crude oil refined here is processed by independent refiners.[17] Hence, it is obvious that the functioning of the independent companies is indispensable to a healthy industry. The independent company must be permitted to prosper if for no other reason than to prevent a drift into monopolistic practices with resultant governmental intervention.

TWO ALTERNATIVES

Every American unites in the national commitment to dedicate our country's energies and its will, as well as its hopes and prayers, to the establishment of world peace. International understanding in both commercial and political fields is the aim of our people, but, until that understanding is achieved, the United States must under no circumstances abandon to chance its industrial and military capacity to uphold its ideals.

This nation now faces two alternatives:

Either—

1. To await with hope the discovery of sufficient petroleum within our boundaries that the military re-

---

[16]Hearings, "The Independent Petroleum Company," p. 33.

[17]*Ibid.*, pp. 188-189.

quirements of the future will occasion no concern, and in the meantime to depend upon foreign oil and trust that war will not cut off our imports;

Or—

2. To take steps to guarantee a domestic petroleum supply adequate for all eventualities by means of:

(a) Incentives to promote the search for new deposits of petroleum within the boundaries of the United States and in the continental shelf; and

(b) The continuation of the present program looking to the manufacture of synthetic liquid fuels to supplement our domestic crude supply.

RECOMMENDATIONS FOR NATIONAL PETROLEUM POLICY

All the facts before us impel the choice of the second alternative. Therefore, the first principle of American petroleum policy should be to sustain our domestic supply of petroleum and to maintain the American system of competitive free enterprise at home and abroad. The second principle is to make human freedom the cornerstone of our policy, liberty and opportunity for people without discrimination or restraint, both within and beyond our borders.

To these ends we should:

1. Enact those laws which are most conducive to stimulating additional exploration and development in the United States. Encourage conservation to prevent waste. Promote interstate compacts so that our reserves may be expanded and used in the public interest, but guard against any danger of misusing conservation laws to restrain unduly any operator. Administer the public lands, not primarily as a source of governmental revenue, but for the purpose of stimulating private

initiative in discovering and developing oil on the public domain.

2. Utilize the facilities of Government to promote research in the manufacture of synthetic liquid fuels, but without permitting governmental competition with private industry. Enact such legislation as may be necessary and proper to encourage secondary recovery from old fields which otherwise would not be productive.

3. Encourage free competitive enterprise by tax reforms to provide incentives for the risk of private capital in new ventures. Maintain the atmosphere in which competition may survive by enforcement of the antitrust laws. Adhere to the federal statute prohibiting interstate shipments of petroleum produced in violation of state law. Continue the provisions of the income-tax law permitting deductions for depletion and intangible drilling costs.

4. Require full disclosure to the appropriate agency of Government of the principal terms, conditions, and obligations by which American companies undertake to carry on the petroleum industry abroad.

5. Follow a foreign policy designed to promote full development of the petroleum resources of the whole world for the benefit of all peoples of the world; to secure adequate supplies of petroleum to all peoples; and to discourage artificial restraints and restrictions, both political and private, which deny full opportunity for the people of all lands to participate beneficially in the production and distribution of petroleum and petroleum products.

Additional Concurring Views

I concur in the general principles, objectives, and suggested policies set forth in the foregoing Report of the Special Committee Investigating Petroleum Resources, with three reservations which I deem it advisable to point out. It is also my desire to emphasize other general observations contained in the Report.

The first matter in which I find myself in slight disagreement is the suggestion of the Report that the Congress might consider the enactment of legislation requiring American oil companies operating abroad to register with some agency of the United States Government copies of their foreign contracts which, by their terms, involve the types of trade-restraint defined in the statute. It is, of course, obvious that American nationals engaged in foreign operations must necessarily comply with the laws of the foreign countries in which they operate. It is likewise obvious that American nationals operating abroad raise questions of diplomatic relations between the United States and such countries. It is, therefore, proper that the basic concession agreements between such governments and American nationals with respect to the scope of operations to be conducted and the obligations assumed by such American nationals and the commitments of the foreign governments affected, should be made known to our Government. This is and has been the prevailing practice for many years. If legislation is necessary in this regard, the Congress should give consideration to the enactment of appropriate statutes. To require disclosures beyond such basic information, might well result in making public competitive trade secrets that would have serious repercussions

upon the private enterprise of this nation and work undue hardships upon the units of private industry.

The application of the anti-trust laws to monopolistic practices in interstate commerce has been clearly interpreted by the courts. It is generally agreed that such laws may be employed to protect the freedom of trade in interstate commerce from activities of American citizens or corporations, whether the restraint emanates from a domestic or foreign source. Circumstances abroad, under which international trade is conducted exclusively beyond our borders, are such, however, as to distinguish that character of trade from purely interstate or partly interstate and partly foreign transactions as defined and covered by the anti-trust laws. I would hesitate to urge a governmental policy that might destroy that distinction as to application of the anti-trust laws.

The second proposal of the Report on which I desire to comment is the suggestion for the enactment of legislation as may be necessary and proper to encourage secondary recovery from oil fields which otherwise would not be productive. In general, this objective is heartily approved and I concur in the proposal to the extent that the Federal Government may do so within its constitutional sphere of legislative authority and to the extent that such legislation is equally applicable to the encouragement of recovery of all oil from any source in the United States. The suggestion, however, raises the possibility of subsidy payments to those engaged in the "secondary recovery" of oil. On principle, it is my opinion that any philosophy of government tending to subsidize uneconomic peacetime operations of any character is unsound and leads to a destruction of the virility of our private enterprise. If private enterprise is

to survive in the United States, it must do so by its ability to survive all legitimate competitive hazards. The maintenance of a healthy domestic economy that will result in adequate competitive prices is the best insurance we can have for the continued operation of secondary recovery projects and the preservation of stripper pools.

I raise the third question as a mere matter of clarification. The Report suggests that the Federal Government take such steps as may be possible to encourage conservation to prevent waste. I strongly approve this objective. The Federal Government can do much to encourage conservation to prevent waste. The Congress has done so by ratifying the Interstate Oil Compact, the enactment of the Connally Hot Oil Act, and the enactment of more liberal and practical public-land laws. Much has also been accomplished through the U. S. Geological Survey and the Bureau of Mines, and other agencies of the Government acting within their proper sphere. It should be made clear, however, that the production of oil and gas is entirely a local matter, wholly within the jurisdiction of the respective states, and that the primary problem of enacting and enforcing conservation measures to prevent waste of these natural resources is exclusively a state matter. The Congress should refrain from any policy that would tend to invade the prerogatives of the states in this purely local field.

The committee Report and the policies suggested are indeed a strong argument for the competitive enterprise system which we enjoy in America and which has been the philosophy upon which our private oil industry has succeeded. I, therefore, emphasize that any governmental policy which encourages any department or agency of gov-

ernment to enter into competition with private enterprise, is contrary to this philosophy. As a corollary it follows that our national oil policy should be to discourage and, if necessary, to prohibit any department or agency of government from engaging in petroleum activities that directly or indirectly compete with our private industry.

The Report properly points out that freedom of markets in international trade and equal access to petroleum supplies for all nations are contributing factors to world peace. In this connection, however, we should not fail to recognize that the United States is the only remaining nation in the world where the production of petroleum is not a governmental monopoly. With consciousness of this fact, it should be made clear that our agreement to these principles does not mean that we open the door to any foreign nation for the exploration of our domestic oil resources in competition with our private industry. Reciprocity in this regard should be limited to the citizens and nationals of foreign countries. Likewise, the United States Government should respect such policy by refraining from engaging in the petroleum business abroad.

E. H. Moore

U. S. GOVERNMENT PRINTING OFFICE O—1947