

U. S."⁵ Further, the possibilities of alternative sources are truly staggering. The U. S. Geological Service has estimated that as much as 140 trillion barrels of oil may ultimately be recoverable from U. S. oil shale deposits.⁶ At the 1977 production rate of roughly 3 billion bbl. of crude annually,⁷ that comes to the equivalent of 46,667 years of production! Internationally, in the midst of record oil and gas production this year, petroleum reserves grew by 5.5 billion bbl., while 193 trillion cubic feet of natural gas were added to reserves, a hefty 8.3% increase.⁸

But the most eloquent evidence of adequate energy supplies is given us by the oil companies themselves; not through their words, but by their actions. Although scientists estimate that less than 5% of the possible oil producing areas of the earth have been adequately explored, the oil companies have dramatically cut their efforts in geophysical exploration from a high of 13,655 crew months in 1957 to 7,172 crew months in 1975.⁹ Within the U. S. during the same period the number of exploratory wells drilled has dropped from 14,707 to 9,214, despite an improved success rate for finding oil.¹⁰ The fact is, exploration, while providing little in the way of return on investment, is absolutely crucial if new petroleum sources are to be discovered and developed. Thus the companies' own activities give lie to their expensive "energy shortage" media campaign. If oil is in such short supply, why have they continued to cut back their efforts to find new sources?

In fact, the energy crisis facing the oil companies is not a crisis of shortage, but one of overproduction. The recent failure of the OPEC nations in Caracas recently to raise crude prices due to "soft" demand, a condition that may extend through the 1980s according to some economists;¹¹ the continued expansion of proven oil and gas reserves; non-Communist refineries operating at only 77% capacity¹² — these facts all indicate a world market currently glutted with oil, with little prospect of conditions improving in the near future. Nor should this be surprising. Oil and gas, despite the difficulties in their discovery and production, are not exempt from the general laws governing all commodities in the marketplace.* Overproduction, not scarcity, poses the eternal threat to the capitalist's profits. A brief history of the petroleum industry will reveal this fact to be no less true 100 years ago than it is today.

III

Historically, monopoly control of the U. S. oil industry has centered upon the areas of refining, transportation, and marketing; while the ac-

*This is true despite the supposedly non-renewable quality of petroleum resources. Moreover, this concept of non-renewability has recently come into question with the discovery of geothermal gas at great depths (30,000 ft.) in the Gulf of Mexico, suggesting the possibility that oil and gas may be forming right now at much faster rates than previously theorized.

tual discovery and production of oil was left to fierce competitive struggle between numerous independents. This was the result of several factors. First of all, in comparison to the large amounts of capital necessary for the building of efficient refineries, the laying of pipeline networks, etc., it was relatively inexpensive to drill a well with the possibility of enormous return on an initially modest investment. Small investors flocked to the oil fields and some estimates place the number of crude producers throughout most of the last quarter of the 19th century at as many as 16,000.¹³ Also, there was (and still is) the wildly erratic "boom or bust" nature of petroleum production, with the ever present threat of overproduction and plummeting prices. For example, in the year following Drake's pioneer oil well near Tittsville, Pennsylvania, prices dropped from \$20.00 a barrel in January to less than \$4.00 by year's end as thousands rushed to the oil field in the wake of the excitement over Drake's discovery.¹⁴ The opening of the Ohio-Indiana fields brought crude prices in 1888 down to 15¢ a barrel.¹⁵ Due to the increased demand generated by World War I, crude prices stood at \$3.07, but the discovery of the huge East Texas fields in the midst of the Depression forced prices down to 65¢ by 1931.¹⁶ As one student of the oil industry has put it:

Big oil has traditionally preferred to leave production at least partially in small hands, not out of sentiment for "free competitive enterprise," but because of the realization that here is the greatest risk. It is impossible to predict or prevent new discoveries.¹⁷

In contrast to the chaotic conditions prevailing in production, the transportation, refining, and marketing of petroleum products gradually came under the monopolistic control of Rockefeller's Standard Oil. Williamson in his two volume *American Petroleum Industry* described the process:

Rockefeller's fundamental objective at the end of 1873, the keystone to what he described as "our plan," was to bring the bulk of the industry's refining capacity under Standard's domination. He and his fellow executives were primarily interested in using their expanding control over gathering lines, tank cars and terminal facilities and stronger bargaining position opposite the railroads to bring pressure on the remaining independent refiners.¹⁸

By means of secret and illegal agreements with the railroads in which Rockefeller received substantial discounts off published freight rates, Standard's competitors soon found themselves out of business. As early as 1878, Standard owned or leased refineries valued at \$33 million out of a total U. S. investment in refining of \$36 million.¹⁹

By 1888 Standard had begun acquiring producing properties in the then booming Ohio-Indiana fields as a means of insuring supplies for its refining operations. This trend was stimulated by the discovery of Texas' fabulous Spindletop field in 1901, an event which gave rise to the