

*Nuno Luís Madureira*

---

## Squabbling Sisters: Multinational Companies and Middle East Oil Prices

This article examines the historical emergence of the Middle East oil-pricing system. The collapse of the Gulf-plus system, combined with outstanding discoveries of new reservoirs across the Arabian Peninsula and Persia, awoke latent competitive forces within the oligopolistic oil industry. After World War II, business differences regarding vertical integration, market priorities, and global competition worsened existing fractures among the multinational oil companies generally referred to as “the seven sisters.” The conclusions underscore the role of the “fringe” companies Texaco, Standard of California–Chevron, and Gulf Oil in prompting new price equilibriums for Persian Gulf crude oil.

**Keywords:** cartel, oil prices, Middle East, oil companies

This article analyzes the period after World War II and explains how the Middle East became a new geographical base point for petroleum transactions and the hub of the global pricing system. The sudden discovery of several Middle East giant oil fields (1943–1947) along with the disclosure of the region’s reserves potential made the global pricing equilibrium harder to sustain. U.S. oil multinationals were key factors in this process. They faced an extreme divide between their foreign and internal situations: first, new business opportunities emerged because of the discovery of huge reserves with low extraction costs; and second, an adverse political environment of public outcry against big business and cartel practices was fueled by the media, the U.S. Department of Justice, Congress, and sectors of the federal government. The outcome of this process was the release of a report by the

I gratefully acknowledge the Luso-American Development Foundation (FLAD) research grant support and the insightful comments made by three anonymous referees.

*Business History Review* 91 (Winter 2017): 681–706. doi:10.1017/S0007680517001398  
© 2018 The President and Fellows of Harvard College. ISSN 0007-6805; 2044-768X (Web).

Federal Trade Commission (FTC) in 1952 that indicted major companies for cartel practices.<sup>1</sup>

The FTC report provided a good account of collusive mechanisms based upon the interlacing of interests; the joint ownership of concession rights shaped a web of common property rights in Iraq, Kuwait, Bahrain, and Saudi Arabia and, later on, in Iran and Abu Dhabi. These rights were reinforced by joint ownership of stock facilities, refineries, and pipelines. In addition, these interests became even more closely interwoven through the execution of long-term contracts for the sale of crude oil.<sup>2</sup> Seven multinational companies took hold of the oil resources through the control of upstream operations (from exploration to extraction) and held significant sway over the downstream activities (from refining to distribution).

Several authors have remarked on how there was little need to formalize secret paper agreements to limit competition and uphold prices when the very productive structure fostered the natural convergence of shared common assumptions about prices and the rate at which the industry should expand.<sup>3</sup> Wayne Leeman, for instance, claimed that the appropriate classification for the seven multinational companies should be “natural oligopoly.”<sup>4</sup> Competition was naturally circumvented because there were such large economies of scale in finding, producing, refining, and distributing oil. Only a few firms with optimum scales could supply the financial sums demanded.<sup>5</sup> Furthermore, Edith Penrose noted the role of vertical and horizontal linkages as preventive barriers to entry as these precluded the accumulation of large amounts of crude in the hands of sellers.<sup>6</sup>

Anthony Sampson’s book *The Seven Sisters*, published in 1975, cleared the path for a turnaround. Sampson felt that “oligopoly” simply represented too weak a concept to account for the sheer might secured by oil multinationals. He claimed that much more was at stake than mere interdependence and market control. The fate of each oil major

<sup>1</sup> Burton. I. Kaufman, “Oil and Antitrust: The Oil Cartel Case and the Cold War,” *Business History Review* 51, no. 1 (1977): 35–56; “United States Policies with Respect to Petroleum,” *Foreign Relations of the United States* (hereafter, *FRUS*), 1951, vol. 1 (Washington, D.C., 1986), 966–92.

<sup>2</sup> *The International Petroleum Cartel*, staff report to the Federal Trade Commission, released through the Subcommittee on Monopoly of the Select Committee on Small Business, U.S. Senate, 83rd Cong., 2nd sess. (Washington, D.C., 1952), 37–58.

<sup>3</sup> Wayne Leeman, *The Price of Middle East Oil: An Essay in Political Economy* (Ithaca, 1962); John Blair, *The Control of Oil* (New York, 1976).

<sup>4</sup> Leeman, *Price of Middle East Oil*, 56–62.

<sup>5</sup> Jahangir Amuzegar, *Managing Oil Wealth: OPEC’s Windfalls and Pitfalls* (New York, 2001), 12–13; Leeman, *Price of Middle East Oil*.

<sup>6</sup> Edith Penrose, *The Large International Firm in Developing Countries: The International Petroleum Industry* (Cambridge, Mass., 1968), 182–93.

was linked with that of its peers, because the fortunes of each affected the fortunes of the others. Hence, their relative positioning proved similar to the economic and social links nurtured by family ties. More than independent juridical entities acting in tacit collusion, oil majors resembled a sorority of sisters, “the seven sisters.” This multinational sorority was less committed to keeping prices high than it was to keeping prices down by holding a steady front against the claims of producer nations. That is, if the multinationals acted as a cartel, their “principal purpose was to screw the producers.”<sup>7</sup> Oil majors were thus expected to close ranks not so much against consumer interests as against the Arab nations that were the owners of the natural resources.

Despite the overarching influence of Sampson’s book, not everybody agreed with his viewpoint. Some authors still held that the primary goal of multinationals involved limiting upstream competition, balancing demand and supply, and boosting profits. As classical cartel theory underlines, profits are maximized by jointly restricting output and increasing prices—ideally to a level set by a monopolist.<sup>8</sup> Drawing on this line of inquiry, Penrose and Francisco Parra have shown how the offtake agreements hammered out by the big oil companies actually worked as a mechanism for restricting production.<sup>9</sup> As long as these agreements handed down explicit rules—written, signed, and kept secret (as in Saudi Arabia and Iran)—they closely resembled the documentation trails hidden from legal authorities by hard-core cartels. For this reason, Parra labels the seven sisters a quasi cartel.<sup>10</sup>

Under the vertically and horizontally integrated concession system, oil trading largely became a question of intercompany exchanges, with most transactions made within the scope of company controls.<sup>11</sup> In contrast to these internalized (transfer) prices were the posted prices, in which selling companies made public the dollar value they were prepared to accept in exchange for a barrel of crude oil. Later, posted prices served above all as a fiscal parameter.<sup>12</sup>

This study examines the historical emergence of the Middle East oil-pricing system from an “inside-out” perspective.<sup>13</sup> In this respect,

<sup>7</sup> Anthony Sampson, *The Seven Sisters* (New York, 1975), 174.

<sup>8</sup> Morris Adelman, *The World Petroleum Market* (Baltimore, 1972), 87–88.

<sup>9</sup> Penrose, *Large International Firm*; Francisco Parra, *Oil Politics: A Modern History of Petroleum* (New York, 2004).

<sup>10</sup> Parra, *Oil Politics*, 4, 67.

<sup>11</sup> Robert Mabro, “On Oil Price Concepts” (WPM 3, Oxford Institute for Energy Studies, Oxford, U.K., 1984); Bassam Fattouh, “The Origins and Evolution of the Current International Oil Pricing System,” in *Oil in the 21st Century*, ed. Robert Mabro (Oxford, 2006), 41–100.

<sup>12</sup> Robert Mabro, “The International Oil Price Regime: Origins, Rationale, and Assessment,” *Journal of Energy Literature* 11, no. 1 (2005): 4.

<sup>13</sup> Espen Storli, “Cartel Theory and Cartel Practice: The Case of the International Aluminum Cartels, 1901–1940,” *Business History Review* 88, no. 3 (2014): 445–67.

the intercontinental cost asymmetry that surfaced after World War II, along with the Arab oil boom, set incentives for the formulation of independent pricing strategies. The environment also eased the disclosure of private practices. It is worth remembering that the dawn of the Middle East petroleum industry (1947–1951) coincided with the Marshall Plan (an American initiative to assist Western Europe financially after the war by sending supplies to the deprived European nations). David Painter's analysis has shown that the procurement of petroleum and petroleum products from "offshore sources," under the European Recovery Program, revealed divergences and inconsistencies in the pricing schemes of the various companies.<sup>14</sup> Long-term contract prices, transfer prices, and official prices were scrutinized by the authorities. The act of external regulation affected relationships among those experiencing supervision, as so often is the case.

### Global Players and the Middle East

Considering the seven multinational firms, we may differentiate between the historical hub, formed by the largest enterprises that first seized a share of the global market in the nineteenth century, and the second generation of national companies that evolved toward the multinational stage after World War I, moving gradually into full international expansion. While Jersey Standard–Exxon and Royal Dutch Shell belong to the historical hub, Anglo-Iranian–BP, Socony-Mobil, Gulf Oil, Texaco, and Standard of California–Chevron fall into the latter group of twentieth-century latecomers. Table 1 depicts the market share for crude extraction and refining in 1947 of the two historical companies, which were clearly ahead of the others. The striking point, however, was the difference between the thresholds to globalization. Incumbent market leaders, such as Jersey Standard–Exxon and Royal Dutch Shell, displayed a strong presence not only in the United States but also in other regions, including Indonesia, Romania, Austria, Venezuela, Peru, Colombia, Canada, and the Middle East (not to mention their former stakes in Russia and Mexico that were wiped out by nationalization). However, the other companies, with the partial exception of Gulf Oil, operated mainly in the Arab and Persian regions, or in the U.S. and Arab regions. In terms of market heterogeneity, the key fissure thereby divides the historical companies, forced to streamline supply from different sources and pursue a global pricing strategy, and the

<sup>14</sup> David S. Painter, "Oil and the Marshall Plan," *Business History Review* 58, no. 3 (1984): 359–83; David S. Painter, "The Marshall Plan and Oil," *Cold War History* 9, no. 2 (2009): 159–75; David S. Painter, *Oil and the American Century: The Political Economy of US Foreign Oil Policy, 1941–1954* (Baltimore, 1986).

*Table 1*  
**Crude Oil Production under Control of the Seven Sisters and Their Respective Refining Capacities in 1947**

Oil company	Crude oil production under corporate control (thousand bbl/day)				Refining capacity (thousand bbl/day)		
	U.S. (1)	Middle East (2)	Other regions (3)	Total crude oil production (4) *	World production (%) (5)	Refining capacity (6)	Crude oil production / refining capacity (7) **
Anglo-Iranian–BP	0.0	399.4	66.1	465.5	5.6	489	0.95
Standard of California–Chevron	263.1	100.1	35.4	398.6	4.8	327	1.22
Texaco	289.4	100.1	44.1	433.6	5.2	492	0.88
Jersey Standard–Exxon	465.0	95.2	640.3	1200.5	14.5	1348	0.89
Socony–Mobil	172.0	34.2	29.3	235.5	2.8	560	0.42
Royal Dutch Shell	195.5	6.5	444.5	646.5	7.8	917	0.71
Gulf Oil	216.1	70.0	102.6	388.7	4.7	360	1.08

Sources: Estimates based on “Preliminary Report of Prices Paid in ECA-Financed Petroleum Transactions,” 24 Oct. 1949, ECA, and Record of the U.S. Foreign Assistance Agencies, Arab Oil Litigation #43, both in National Archives, Washington, D.C.; *20th Century Petroleum Statistics* (Dallas, 2005).

\* Total crude oil production (4) is calculated by adding (1), (2), and (3).

\*\* Crude oil production / refining capacity (7) is calculated by dividing (4) by (6).

group of latecomers, whose supply and pricing strategies had to be Middle East centered.

Two issues are important. First, the huge quantities of oil produced in the United States were absorbed primarily by its internal market because North America no longer produced a petroleum surplus to feed world markets. Second, the historical companies (plus Gulf Oil), with their production scattered worldwide, returned the highest export surpluses from the rich oil fields of Lake Maracaibo, Venezuela (see [Table 1](#)). This important pool, explored in close cooperation and explicit collusion, was interconnected with the giant refineries and terminals located on the Caribbean islands of Curaçao (Shell) and Aruba (Jersey).

The greater the corporate separation between historical (Western Hemisphere) surplus exporters and latecomer (Eastern Hemisphere) surplus exporters, the greater the risk of plain price competition. Given the differences in extraction costs, the long-term result could be advantageous to the latter group only. Nevertheless, market heterogeneity may serve to identify potential fault lines among the seven sisters but not how these lines came about in practice. The potential clash between the vintage and the latecomer multinationals was offset by a robust interlacing of interests. An analysis of the concession rights, long-term contracts, joint marketing organizations, and petroleum exchange arrangements will reveal how Socony-Mobil assets appeared closely tied up with those of Jersey Standard–Exxon in the same way that Royal Dutch Shell’s interests proved closely interrelated to those of Anglo-Iranian–BP.<sup>15</sup> Such close-knit relationships fundamentally resulted from attempts to broaden the pattern of vertical integration globally by joining forces in international marketing and distribution.<sup>16</sup> The American companies, Jersey Standard–Exxon and Socony-Mobil, and the European Royal Dutch Shell and Anglo-Iranian–BP pooled their resources with the intent to extend the geographical range of retail outlets and size-premium gasoline markets. This revealed the quasi-cartel dynamics. When market heterogeneity and interlocking affinities are equally taken into consideration, the distinction is between the solid nucleus (formed by the above-mentioned four majors) and the detached fringe: Texaco, Standard of California–Chevron, and Gulf Oil.

Overall, the statistics displayed in [Table 1](#) portray a transition stage in the Middle East. Bold plans designed by imperial powers to take hold

<sup>15</sup> Leeman, *Price of Middle East Oil*, 15–38; Penrose, *Large International Firm*; J. H. Bamberg, *The History of the British Petroleum Company: The Anglo-Iranian Years, 1928–1954*, vol. 2 (Cambridge, U.K., 1994), 277–307.

<sup>16</sup> Alfred D. Chandler, *The Visible Hand: The Managerial Revolution in American Business* (Cambridge, Mass., 1977), 352–53.

of resources and exert significant leverage upon local governments proved hard to apply in the field. After 1946, Moscow was compelled to relinquish its claims over Northern Iran, while London had to recognize that it could no longer oversee the whole region owing to financial and logistical shortcomings.<sup>17</sup> Washington, on the other hand, stepped in as the events unfolded, moving quickly to fill the power vacuum. The project envisioned by the Department of the Interior to acquire a controlling interest over the Middle East oil business was, however, discarded.<sup>18</sup> According to the precautionary guidelines set down by U.S. President Harry Truman, Middle East foreign policy should streamline three priorities: provision of assistance and aid; installation of overseas military bases; and promotion of economic development through private American oil businesses.<sup>19</sup> The latter point implied that prosperous oil exploration was vital in deepening the drive for modernizing and strengthening existing regimes. As a consequence, American foreign policy became entangled with the outlook of U.S. multinationals. It fell to the government to protect the long-term interests of the U.S. oil business and to the companies to secure a stream of revenues for Arab and Persian governments by means of concession rights, royalty rates, and the payment of other taxes.<sup>20</sup> Similar to the postwar strategy pursued in Europe and Japan, economic growth was supposed to bolster strong governments and raise a curtain of development to offset the Soviet Union's iron curtain.

Diplomatically, the redesign of the oil economy required the end of the restrictive Red Line Agreement of 1928, which was designed to protect undercapitalized firms from companies with financial muscle.<sup>21</sup>

<sup>17</sup> O. Sanchez-Sibony, *Red Globalization: The Political Economy of the Soviet Cold War from Stalin to Khrushchev* (New York 2014); Paul W. T. Kingston, *Britain and the Politics of Modernization in the Middle East, 1945–1958* (Cambridge, U.K., 1996).

<sup>18</sup> Irvine H. Anderson, *Aramco, the United States, and Saudi Arabia: A Study of the Dynamics of Foreign Oil Policy, 1922–1950* (Princeton, 1981); United States, Congress, Senate, Committee on Foreign Relations, Subcommittee on Multinational Corporations, *A Documentary History of the Petroleum Reserves Corporation, 1943–1944: Prepared for the Use of Subcommittee on Multinational Corporations of the Committee on Foreign Relations, United States Senate* (Washington, D.C., 1974).

<sup>19</sup> Toru Ozonawa, "Formation of American Regional Policy for the Middle East, 1950–1952: The Middle East Command Concept and Its Legacy," *Diplomatic History* 29, no. 1 (2005): 117–48; Edward W. Chester, *United States Oil Policy and Diplomacy: A Twentieth Century Overview* (Westport, Conn., 1983), 230–52; "Interests of the U.S. in Questions of Economic and Military Assistance to Saudi Arabia," *FRUS, 1950*, vol. 5; *The Near East and Saudi Arabia* (Washington, D.C., 1978), 1112–200.

<sup>20</sup> Meetings of U.S. Committees and Paul G. Hoffman to Walter Levy correspondence, 14 Mar. 1949, Walter J. Levy papers, box 21, file 5, American Heritage Center, University of Wyoming, Laramie, Wyo. I would like to express my deepest thanks to David Painter for access to this documentation.

<sup>21</sup> G. P. Nowell, *Mercantile States and the World Oil Cartel, 1900–1939* (Ithaca, 1994), 186–87.

An international bidding rule was at stake, which limited each participant in a conjoint oil pool from searching for new reservoirs outside the legal boundaries of their concessions. The context of postwar expansion rendered the agreement an unbearable burden, particularly for the integrated multinational firms with ambitious plans but low levels of self-production. With the abolition of the Red Line Agreement, the companies were finally free to invest in the production and refining of crude in Anatolia, Turkey, the Arabian Peninsula, Syria, Palestine, Mesopotamia, and Kurdistan. In corporate terms, the postwar changeover involved further access by historical majors to low-cost Arab oil, enhancing the stakes of Jersey Standard–Exxon, Socony–Mobil, and Royal Dutch Shell in the Middle East petroleum surplus. Thanks to intercompany contracts, a new equilibrium came into effect among crude-long multinationals, with spare oil for the existing retail outlets, and crude-short multinationals, with scarce reserves for their own distribution networks.

Ultimately, the diplomatic and corporate bargaining process realigned the share of Middle East oil taken by the central multinationals. Jersey Standard–Exxon acquired reserves of 291,500 barrels (bbl) per day (a long-term supply contract with Anglo–Iranian–BP), 52,000 bbl/day (firm offtake from a joint concession with Saudi Arabia), and 10,000 bbl/day (a medium-term exchange contract with Standard of California for Indonesian Seria crude); Socony–Mobil acquired reserves of 73,000 bbl/day (a long-term supply contract with Anglo–Iranian–BP) and 24,200 bbl/day (firm offtake from a joint concession with Saudi Arabia); and Royal Dutch Shell secured the acquisition of 275,000 bbl/day (a long-term supply contract with Gulf Oil).<sup>22</sup>

As shown in Table 1, these figures provide “a context for ongoing changes. In a short time span, the marked imbalance between the foremost Western–Eastern hemisphere corporations decreased, which reinforced cooperation and strengthened common interests. Although the threat of open competition was largely reduced, the difference in interests persisted within the quasi-cartel environment. Despite Jersey Standard–Exxon’s and Royal Dutch Shell’s reinforcement of their Middle East positions, their main source of supply to Europe and the United States continued to be in the Caribbean: in 1948, the total petroleum obtained by different means in the Arabian and Persian oil fields

<sup>22</sup> “Aramco Crude Price Study,” 17 July 1947, *Multinational Corporations and U.S. Foreign Policy: Hearings before the Subcommittee on Multinational Corporations*, vol. 8 (Washington, D.C., 1975) (hereafter, *MCUSFP*), 196–205; *Principal Agreement between the Shell Petroleum Company Limited and Standard Oil Company of California*, 14 Dec. 1950, National Archives and Records Administration, Washington, D.C. (hereafter, NARA); Freight documents from Caltex, Arab Oil Litigation #42, Record of the U.S. Foreign Assistance Agencies (hereafter RUSFAA), NARA; Secretary of State to U.S. Embassy in United Kingdom, 20 Aug. 1954, *FRUS, 1952–1954*, vol. 1, part 2, 284–85.



accounted for just 65 percent and 70 percent of Jersey Standard–Exxon and Royal Dutch Shell production in Venezuela, respectively”.<sup>23</sup> Consequently, Maracaibo heavy oil had to withstand export-market competition from the Arabian Gulf light crudes marketed by the fellow sisters. In contrast, the new acquisitions, long-term contracts, and concession-sharing agreements did not resolve the overall problem of petroleum shortages, which materialized in persistent deficits between their own production and refinery capacity (Table 1, column 7). For decades, Jersey Standard–Exxon remained crude-short and Royal Dutch Shell crude-hungry; both relied heavily on buying crude from third parties and paid a supplementary cost and a trading premium over the competitive transfer price of Middle East oil.<sup>24</sup>

In summary, the historical multinationals stood to gain considerably from an international pricing system based on prices set to equalize costs at the destination. Such prices would return extra profits for low-cost regions while defending the investments already made in countries with mature oil fields. However, the competition also depended on the costs of getting crude oil from the wells to the refineries and the centers of consumption. In reality, this proved to be the crux of the matter, as shown in the last section.

### Regional and Global Prices

By 1945, the international oil-pricing system was crumbling. For a brief period, competition and decentralized exchange prevailed over the economies of integrated multinationals and their organizational hierarchies. In the Persian Gulf, an Anglo-Iranian–BP manager reported that prices were beginning to be settled on an *ad hoc* basis. The practice was for “buyers and sellers to negotiate a price based upon their individual assessments of competitive parity with crude oils in the Mexican Gulf,” which naturally resulted in a series of different prices.<sup>25</sup> American sources reiterated the same point in stressing the drift of Arab Gulf prices.<sup>26</sup> Not only was there a revival in short-term transactions, but the same quality crude was being sold for different values over short periods.

<sup>23</sup> American Embassy Caracas, *Annual Report Petroleum Venezuela*, 10 Mar. 1949, RUSFAA, Deputy Director for Management #NDD 917756, oil pricing 1948–54, box 1, NARA.

<sup>24</sup> Stephen Howarth and Joost Jonker, *Powering the Hydrocarbon Revolution, 1939–1973*, vol. 2, *A History of Royal Dutch Shell* (Oxford, 2007); Bennett H. Wall, *Growth in a Changing Environment: A History of Standard Oil Company (New Jersey) 1950–1975*, vol. 4 (New York, 1988).

<sup>25</sup> W. D. Brown, *Course of the Middle East Oil Prices*, 15 Apr. 1959, History of BP – Subject prices, file 115920, British Petroleum Archives, Warwick, U.K. (hereafter, BPA).

<sup>26</sup> William J. Hull, *History of ECA Pricing Policy*, 25 July 1950, 8, RUSFAA, Arab Oil Litigation #43, Freight documents, box 1, NARA.

The immediate postwar events marked a departure from the preceding Gulf-plus cartel system. As its name suggests, Gulf-plus was a benchmark for worldwide transactions based on published quotations from Texas oil fields “plus” the respective transport costs from the Mexican Gulf. Emerging at a time when American crude supplied the world, this single basing point presumed the calculation of transport costs as if all oil had come from the Mexican Gulf alongside the acceptance of Texas wellhead prices as the universal yardstick.<sup>27</sup> In practical terms, the buyer paid the same delivered price for oil irrespective of the shipping port of origin (*phantom freight*); wherever the crude had been extracted, the delivered price was always determined by the Gulf-Texas gauge. Any possible competition, whether between oil regions or between companies, was eradicated by this means.

The foundations of Gulf-plus—standardized oil prices and fictitious transport costs—began to fade away during World War II. The system’s erosion was caused by the cumulative effect of five independent factors: the weakening of the Achnacarry cartel rules; the rerouting of tankers due to submarine and naval warfare; opportunistic Middle East sales with discounts that deviated significantly from Gulf-plus; the establishment of a new basing point in the Persian Gulf for bunker oil; and close cooperation and supervision between government agencies and petroleum businesses.<sup>28</sup> Most of these exceptional events resulted from the context of war. However, afterward, there was to be no return to “normality.” Competitive markets, nonparallel pricing, and *ad hoc* transactions went hand in hand with the corporate oil economy assured by internal asset transfers undertaken between multinationals and their affiliates.

Although the “plus” of the Gulf-plus system (i.e., the fictitious input of a transport cost) faded away, some linkages between Middle East oil and U.S.-Texas prices stubbornly persisted. For instance, some contracts signed in 1946 and 1947 contained a clause prescribing that the price paid for delivered oil should not exceed the price in effect for the equivalent U.S. crude.<sup>29</sup> When prices began to rise in America, another indexing clause ensured that Middle East contract prices should move

<sup>27</sup> Helmut J. Frank, *Crude Oil Prices in the Middle East: A Study in Oligopolistic Price Behavior* (New York, 1966), 10–12.

<sup>28</sup> Ranvir Singh Kanwar, “States, Firms, and Oil: British Policy, 1939–54” (PhD thesis, University of Warwick, Coventry, 2000), 114–24, 142–52; Daniel Yergin, *The Prize* (New York, 1991), 266–68; Frank, *Crude Oil Prices*, 18–19; *International Petroleum Cartel*, 355–56; Michael B. Stoff, “The Anglo-American Oil Agreement and the Wartime Search for Foreign Oil Policy,” *Business History Review* 55, no. 1 (1981): 59–74; Chester, *United States Oil Policy*.

<sup>29</sup> Crude oil sales agreement between Compagnie Française des Pétroles and Pantapac Oil Company of Venezuela, 26 Oct. 1946, RUSFAA, Executive Secretariat #209, correspondence to and from oil companies – Gulf and Esso, box 2, NARA.

in line with future Texas prices, thus allowing for short-term adjustments.<sup>30</sup> However, as long as each company was free to set its own independent dollar value for the delivered crude, the North American yardstick became just a relative orientation. Even in cases where contracts accepted the absolute benchmark of Gulf of Mexico–Texas prices—as often happened with Anglo-Iranian–BP contractual arrangements—the freight charges were estimated on a real-travel basis, rather than as fictitious distance costs, which opened the way for charging different prices at different destinations.<sup>31</sup>

Out of this singular context grew a fresh reflection on pricing. The point stemmed from the negotiations for the admission of Jersey Standard–Exxon and Socony–Mobil into the Saudi Arabian concession. A general agreement stipulated the division of the stock in the joint exploration subsidiary, Aramco, into 30 percent shares allocated to each of the initial stockholders, Standard of California–Chevron and Texaco, plus 30 percent to Jersey Standard–Exxon, and 10 percent to Socony–Mobil, the new stockholders. In the second quarter of 1947, the debate took a new turn and centered on finding a mutually satisfactory price for Aramco crude.

In starkest terms, the discussion revolved around the price that each partner should pay for the offtake crude acquired in proportion with the respective capital stock in Aramco. Under such circumstances, it was no wonder that the minority shareholders with constraints on their initial offtakes would rationally bet on the proposed upper band to squeeze the maximum profit out of total sales.<sup>32</sup> However, strategic interests beyond those short-term objectives impaired the talks and resulted in entrenched positions. The clash was shortened by the proposition of two pricing formulas: cost-plus and netback price.

Standard of California–Chevron and Texaco, grouped into the Caltex joint venture to heighten the common interest in Aramco exports, supported the advantages of a cost-plus formula. Cost included the expense of operations, royalties, the cash required for working capital, capital investments, taxes and payments, dividends to stakeholders, and exceptional expenditures incurred by the Saudi Arabian government. Therefore, Caltex recommended the price of \$1.02/bbl for Arabian crude—a value that heightened the sales in expanding markets and that could undercut competition from the other companies in

<sup>30</sup> Crude oil sales agreement between Caltex Oceanic Limited and Comitato Italiano Petroli Ufficio Rifornimenti, 31 Oct. 1947, RUSFAA, Executive Secretariat #209, correspondence to and from oil companies - Caltex, box 1, NARA.

<sup>31</sup> Anglo Iranian to Norsk Braendseloljg, 28 Feb. 1947, Norsk, file 77416; *Oil prices in India – Report Bombay*, 2 Feb. 1969, correspondence files, file 138989, both in BPA.

<sup>32</sup> On the weight of these financial issues, see Anderson, *Aramco*, 183, 202–3.

Europe while simultaneously “permitting shipments to the USA without loss against competition from South America.”<sup>33</sup> Hence, if \$1.02/bbl ensured a very competitive price throughout the Eastern Hemisphere, it was because the price was designed to compete with production costs in more distant markets; it reached North America and swept Europe.<sup>34</sup>

The standpoints of Jersey Standard–Exxon and Socony-Mobil varied sharply. Far-reaching competitive prices could only push Saudi Arabian oil into competing with their Venezuelan subsidiaries in Western Hemisphere markets, hurting the companies’ outlets. As stated by its opponents, “Jersey is undoubtedly interested in continuing to move products to Europe from the Caribbean.”<sup>35</sup> An earmarked and noncompetitive price for Saudi oil was needed in the sense of attaining only markets in the nearby area of the Mediterranean (a high crude price could cope with short-distance travel costs) and enabling moderate market-share growth. The proper manner of having this both ways was to devise a target price defined at the destination rather than at the origin. Jersey Standard–Exxon and Socony-Mobil suggested the dollar value of approximately \$1.48/bbl, designed to match the price of similar-quality crude from Venezuela (Jusepin) delivered to the South of France.<sup>36</sup> In this manner, French consumers received the same price but from different geographical sources. More importantly, the Arabian crude price was set to equalize the incumbent competitor at the place of destination. To arrive at the estimate of \$1.48/bbl for Saudi Arabian light crude entailed summing the price of Maracaibo crude in Venezuela with the travel costs to the final destination (in this case, Maracaibo-Bordeaux) and then subtracting the transport costs from Saudi Arabia (Ras Tanura) to Bordeaux. The result expressed the netback price of Arabian crude in relation to the southern Mediterranean. It ascertained how crude oil should be priced free on board (FOB) at the Saudi shipping port of Ras Tanura in order to equalize the customs, insurance, and freight (CIF) price of Venezuelan crude at the Bordeaux destination. As a mirror price, the netback reflected the difference in transportation and production costs for a benchmark commodity. The formula couched the encirclement of the Arabian

<sup>33</sup> California Texas Oil Co., Ltd., New York, letter, 13 June 1947, *MCUSFP*, appendix to part 7, 191–92.

<sup>34</sup> The \$1.02/bbl suggested by Caltex for Saudi prices faced the \$1.40–\$1.48/bbl range from Iraqi and Iranian sources of output as adopted by Jersey, Socony, Shell, and Anglo-Iranian. Memorandum, 25 June 1947, *MCUSFP*, appendix to part 7, 192–93.

<sup>35</sup> T. L. Lenzen to R. C. Follis, 27 May 1948, *MCUSFP*, appendix to part 7, 274–76.

<sup>36</sup> Standard Oil Export Corp., E. Soubry to S. P. Coleman, Mar. 1947, *MCUSFP*, appendix to part 7, 177–80.

competitive boundary within the Mediterranean, leaving the more distant northern European markets to alternative (Caribbean) suppliers.

At the critical juncture of 1947, the choices were clear: Aramco could opt for either a cost-plus regional price (totally independent of the Gulf of Mexico and Caribbean quotations) or a global price calibrated by the costs of the other exporting regions. As long as Caribbean prices remained indexed to U.S.–Mexican Gulf prices, the netback method would pave the way for a return to a global petroleum-pricing system that once again revolved around the Western Hemisphere. In contrast, the acceptance of the cost-plus formula would contribute to cementing an independent basing point for transactions in the Middle East.

The fringe multinationals grouped in Caltex (Standard of California–Chevron and Texaco), which are dependent upon the Saudi concession for building and consolidating a distribution network, strove for a competitive cost-plus pricing strategy relatively independent of world prices. In contrast, the core sisters, Jersey Standard–Exxon and Socony-Mobil, attempted to preserve the equilibrium that was fairly attained and to defend world price stability through netback equalizing formulas interlinked with the global yardstick of Gulf of Mexico prices.

In the end, the Aramco committee decided against Jersey Standard–Exxon and Socony-Mobil. With the victory of the cost-plus formula, Arabian crude was bought by shareholding companies toward the lower limit of the price range: \$1.02/bbl. The outcome represented a green light for the expansion plans of Caltex in Europe and a potential breach in the collusion around noncompetitive prices.<sup>37</sup> However, this corporate separation was partially circumvented. Surprisingly, a win-win solution was devised, which led to the compromise of a double-pricing system: while Aramco's transfer sales to multinational subsidiaries continued to be carried on a cost-plus basis, their official sales to nonsubsidiaries started being held on a netback basis.

Taking advantage of a steady increase in oil prices, which spread from Texas to the Middle East during the second half of 1947, Aramco kept the low price for offtake crude acquired by shareholders, but raised the official market price in line with other competitors. By the close of that year, the gap between transfer prices and market prices had widened to such an extent that a clear-cut double-pricing policy had come into effect: Caltex and Socony-Mobil sold their stocks of Arabian crude to affiliates at \$1.29/bbl (and sometimes \$1.57/bbl) while the subsidiary Aramco had moved steadfastly to the upper plateau of the market, at \$2.22/bbl, which was also the running price

<sup>37</sup> Caltex, *Freight absorption on ECA financed products originating in the Persian Gulf*, 5–7, RUSFAA, Arab Oil Litigation #42, Freight documents from Caltex, box 1, NARA.

for the Anglo-Iranian–BP competitor.<sup>38</sup> Overall, there was one concessionary company with four shareholders and two prices: the official price recognized by the oil business community, and the private transfer price (kept secret between the shareholders and their affiliates), which allowed for more competitive sales.

The massive investments required to build a new pipeline to the Mediterranean and the expansion of local refinery facilities pressed Aramco to raise the transfer price to \$1.30/bbl (January 1948) and then \$1.43/bbl (June 1948)—a value deemed to be “a fair measure of the market value of Arabian crude at *Ras Tanura* for import into the United States.”<sup>39</sup> By this time, the official price of Saudi light crude had fallen back to \$2.03/bbl because of the Caltex initiative (May 1948).<sup>40</sup>

### Netback Prices and the Marshall Plan

Between April 1948 and December 1951, millions of tons of economic aid arrived in Europe under the Marshall Plan. The task of economic reconstruction involved the extensive procurement of food, raw materials, consumer goods, equipment, and fuels. Among the commodities dispatched, oil held the leading position, accounting for 10 percent of the total economic aid. At a time of hard currency shortages, the plan provided the dollars that European countries needed and the dollars that U.S. companies needed. All purchases had to comply with tight rules regarding contracts and pricing, plus the accounting controls set forth by Marshall Plan agencies and additional scrutiny exercised by U.S. senators. Such preventive supervision eased the control of undesired side effects of the European Recovery Program—corruption, bribery, influence peddling, and black marketeering—and became the hallmark of the assistance program.<sup>41</sup>

Despite the straightforward legal directives established for the independent agency, the European Cooperation Administration (ECA), its director soon realized that petroleum supply was one of the most difficult issues to solve. The legal framework compelled the ECA to guarantee the

<sup>38</sup> “Statistical Data Total Shipments to France and Italy 1947–1948,” RUSFAA, Deputy Director for Management – Price Branch #NDD917756, Subject files – Oil reports, box 1, NARA.

<sup>39</sup> S. P. Coleman to J. W. Connolly, 19 July 1948, *MCUSFP*, appendix to part 7, 278–79.

<sup>40</sup> Painter, “Oil and the Marshall Plan,” 364.

<sup>41</sup> Barry Machado, *In Search of a Usable Past: The Marshall Plan and Postwar Reconstruction Today* (Lexington, Va., 2007), 41–47; Barry Eichengreen, “Lessons from the Marshall Plan” (working paper no. 62042, World Development Report 2011, World Bank, April 2010), accessed 20 May 2015, <http://documents.worldbank.org/curated/en/907961468155715855/Lessons-from-the-Marshall-Plan>.

procurement of petroleum and petroleum products “from sources outside the United States,” at a price not higher “than the market price prevailing in the United States at the time of purchase” and also not surpassing “the price regularly charged by the supplier company in comparable transactions with other customers.”<sup>42</sup> These guidelines raised several practical problems. From the outset, American companies requested relief from the uniform pricing rule that was stipulated for exports, stressing that they were charging “different prices in comparable transactions.”<sup>43</sup> In view of the urgent situation in Europe, the ECA’s management had no other option than to temporarily grant the companies a waiver on this requirement. The decision, however, left the ECA on a razor’s edge: it could not take the price set by each multinational for granted, nor could it act as a price-setting agency and issue reference values for oil (a legal restraint set by Congress). Torn between accepting declared commercial prices and fixing prices, the Marshall Plan agency had to carve out some middle ground and devise new operational criteria for consistently allocating oil purchases.

In keeping with the strategy to recruit experts directly involved in specialized business areas, Walter Levy was appointed and invited to come up with a solution.<sup>44</sup> His track record of collaboration with state agencies, particularly the petroleum sections of the U.S. Office of Strategic Services and the State Department, plus his private business experience at Socony-Mobil, made him a respected figure in oil-trading circles.<sup>45</sup> At the ECA’s request, Levy wrote a memorandum on petroleum export prices. Delivered in May 1948, this document opened the way for the full-time appointment of the external consultant as head of the ECA petroleum department. The nomination broke new ground in the search for a solution, not least because it foreclosed the ECA’s efforts to flatten oil prices.

To surmount all institutional constraints, Levy envisaged a double strategy: in the short term, the agency should streamline Marshall Plan procurements under the minimal rule of netback prices, thereby accepting the Jersey Standard–Exxon viewpoint in the debate with

<sup>42</sup> Hull, *History of ECA Pricing Policy*, 4–7.

<sup>43</sup> H. P. Morrison, *ECA and MSA Relations with Oil Companies concerning Petroleum Prices*, 13 Aug. 1952, RUSFAA, Arab Oil Litigation #43, Freight documents, box 1, NARA.

<sup>44</sup> Michael J. Hogan. *The Marshall Plan: America, Britain and the Reconstruction of Western Europe, 1947–1952* (New York, 1987), 137.

<sup>45</sup> Nathan J. Citino, “Internationalist Oilmen, the Middle East, and the Remaking of American Liberalism, 1945–1953,” *Business History Review* 84, no. 2 (2010): 227–51; Walter Isaacson and Evan Thomas, *The Wise Men: Six Friends and the World They Made*, 6th ed. (New York, 2013), 419–38; Clark M. Clifford, oral history interview by Jerry N. Hess, 23 Mar. 1971, Harry S. Truman Library, accessed 1 June 2015, <http://www.trumanlibrary.org/oralhist/clifford1.htm>.

Caltex. The pricing alternative based on the cost of production was sidelined, “because it would lead to a variation of the landed cost of different source oil in the importing country, with unpredictable repercussion on the competitive position of the various marketers.”<sup>46</sup> In contrast, price equalization at the destination could preserve the structure of global pricing, uphold the Mexican Gulf–Caribbean area as the reference base point, and guarantee sufficient returns on company investments. Most importantly, the netback pricing formula provided the necessary business latitude for determining prices, which enhanced the ECA’s monitoring and regulating roles. In the medium term, Levy foresaw the danger of pricing formulas geared by monopolies and consequently added a second remark calling for deeper negotiations with the companies “in order to establish a competitive price.”<sup>47</sup>

The criteria suited the viewpoints of the core globalized multinationals as they received dollars for sales to Europe (all companies except British Anglo-Iranian–BP benefited from Marshall Plan funds). A few weeks after the submission of Levy’s memorandum, Eugene Holman, Jersey Standard–Exxon’s president, announced to the press his commitment to netback prices with Caribbean oil as the key basing point. Jersey Standard–Exxon effectively pledged to ascertain the FOB Persian Gulf oil price to meet competition from Venezuelan oil in Northern Europe, where its main distribution center, the Fawley Refinery in Southampton, Britain, was located.<sup>48</sup> The main emphasis was placed on disclosing the rationale behind oil prices. Holman’s statement underpinned Jersey Standard–Exxon’s engagement in standardized prices, prices equalized with alternative sources of supply, and “prices arrived at independently.”<sup>49</sup> The key purpose was to reply to the crossfire unleashed in the Senate and in Congress.<sup>50</sup> In all likelihood, Jersey Standard–Exxon knew that the netback justification was eligible for endorsement by the Marshall Plan agency and, therefore, the time was ripe for a public rejoinder. Transparent prices became a trump card. In fact, in the ensuing months, the ECA concurred with the view that Jersey Standard–Exxon’s netback pricing formula could be “qualified as a competitive price.”<sup>51</sup> In the end, the Levy-Holman lineup proved mutually beneficial: the pricing dilemma had been solved.

<sup>46</sup> Walter Levy, memorandum on export prices for petroleum, 19 May 1948, Walter J. Levy papers, box 21, file 5, American Heritage Center, University of Wyoming, Laramie, Wyo.

<sup>47</sup> Hull, *History of ECA Pricing Policy*, 3–6; Citino, “Internationalist Oilmen,” 227–51.

<sup>48</sup> Eugene Holman to Senator Joseph C. O’Mahoney, 1 July 1948, RUSFAA, Executive Secretariat #209, correspondence to and from oil companies – Gulf and Esso, box 2, NARA.

<sup>49</sup> *Ibid.*

<sup>50</sup> Henrietta M. Larson, Evelyn H. Knowlton, and Charles S. Popple, *New Horizons: History of Standard Oil Company (New Jersey) 1927–1950* (New York, 1971), 672, 681–82.

<sup>51</sup> Hull, *History of ECA Pricing Policy*, 8.



Although less affected, the foreign oil companies, Anglo-Iranian–BP and Royal Dutch Shell, also praised the clarification. The “Holman policy” not only assured a return to Middle East crudes in “those Mediterranean markets nearer the Persian Gulf,” but also stalled the globalized competition whose “first effect would be to produce an unnatural demand from oil coming from the cheapest source” so that the “surplus from this source would rapidly become exhausted . . . leading to wholly unstable conditions . . . and ultimately to the shutdown of all producing companies other than those with the lowest cost.”<sup>52</sup> For European eyes, what seemed most bizarre was the very hypothesis of a competitive tide sweeping across the globe.

Caltex was much less convinced about the fairness of netback pricing. Again and again, the Standard of California–Chevron and Texaco joint venture questioned what they dubbed a “rigid system of price fixing by arbitrary formulae.”<sup>53</sup> Challenging the ECA’s declarations, these companies held that the approved rules ran against the very nature of competition in which oil prices drew upon differential allowances to enable the supplier to adapt to competition, irrespective of its proximity to various markets. Caltex stressed that price allocation should always rest with private initiative: “the netback formula is not a price; a netback is merely a figure which results if the amount of freight allowance or other allowances is deduced from the f.o.b. price.”<sup>54</sup> Forced to play the single FOB price matchup and earn its oil-dollars, Caltex was a persistent deviant force within the petroleum industry.<sup>55</sup>

### The Shadow of American Netback Prices

In the second half of 1948, there were plenty of reasons to hold the line on the \$2.03/bbl price for Saudi Arabian 36° API (reference to the index of petroleum density set by the American Petroleum Institute which determines its relative value): uniform pricing was becoming a reality; shipments to Europe were picking up pace; core U.S. multinational practices had received validation in the ECA’s own pricing rules; British and British-Dutch oil companies were striving to maintain parallel Iraq and Kuwait marketing prices; and, most importantly, U.S.

<sup>52</sup> W. D. Brown, “Middle East Crude Oil Prices – explanatory notes in regard to the Controversy with ECA-USA,” 1 Sept. 1952, and “Memorandum on World Pricing,” 24 Sept. 1952, both in Subject files – History of BP, file 115920, BPA.

<sup>53</sup> H. M. Herron to Robert Dechert, 24 Sept. 1948, RUSFAA, Executive Secretariat #209, correspondence to and from oil companies – Caltex, box 1, NARA.

<sup>54</sup> W. H. Pinckard (California Texas Company) to Paul G. Hoffman (ECA administrator), 5 Sept. 1950, RUSFAA, Executive Secretariat #209, correspondence to and from oil companies – Caltex, box 1, NARA.

<sup>55</sup> *Ibid.*

taxpayer-dollar expenditure was now justified by the application of a formula, a rationale, and a ceiling price. Generally, the Marshall Plan foundations seemed sound and robust. Nevertheless, the entire architecture would soon be shattered through its own back door with the onset of U.S. petroleum imports.

When the Persian Gulf surplus became large enough to flow into North America, a second equalization point surfaced. Middle Eastern crude had to be priced at a level that also enabled it to compete on the U.S. East Coast. This figure was necessarily below the original northern European netback price, which drove a new cycle of price asymmetries. Henceforth, all companies stuck to the official ECA-financed prices of \$2.03, \$1.97, and \$2.76/bbl for the Arabian, Kuwaiti, and Iraqi crudes, respectively, that were exported to Europe.<sup>56</sup> However, they simultaneously charged \$1.43, \$1.30, and \$1.75/bbl, respectively, for similar shipments, which were accounted for as intracompany transactions, directed to the U.S. East Coast.<sup>57</sup> As long as these transactions were not subject to arm's-length bargaining, they could remain undisclosed and under the seal of commercial secrecy. But keeping such a conspicuous trade flow concealed for a long time proved difficult. Oil company declarations to U.S. Customs left a record that could not be erased and, through them, the ECA took notice of the shadow prices charged for Middle East exports.<sup>58</sup> This discovery sent shockwaves throughout America. In hindsight, the debate about netback prices appeared as merely a cover for overcharging the European aid program while the companies pursued a policy of competitive transfer pricing in corporate business dealings with the United States. Homeland discontent again mounted in many quarters, spearheaded by organizations representing independent oil companies. The annual meeting of independent producers approved a resolution stating that the "ECA program is subsidizing with American taxpayer money a few private concerns permitting them to dump surplus oil into America. . . . Information as to the future plans makes it increasingly clear that the program threatens to make serious inroads upon the domestic petroleum industry."<sup>59</sup> Price equalization at

<sup>56</sup> "Crude Prices April 1948–February 1949," RUSFAA, Executive Secretariat #209, correspondence to and from oil companies – Gulf and Esso, box 2, NARA.

<sup>57</sup> Paul Hoffman to Walter Faust (Socony director), 14 Feb. 1949, and Walter Faust to William C. Foster, 29 Jan. 1951, RUSFAA, Executive Secretariat #209, correspondence to and from oil companies – Socony, box 3, NARA.

<sup>58</sup> P. Brooks, *The Realized Price*, 2 June 1954, RUSFAA, Arab Oil Litigation #43, Freight documents, box 1, NARA.

<sup>59</sup> *Resolution on the ECA Program adopted at the annual meeting of the Independent Petroleum Association of America, 3–4 October 1949*, RUSFAA, Petroleum Branch – subject files #UD 734, Socony–Standard Oil, box.7, NARA.

European levels backfired on price equalization at the U.S. Gulf level, opening up one more front against the majors.

Forced onto the defensive, the web of organizations woven around Middle East oil went to great lengths to justify the current state of affairs: oil companies reassured the public that such shipments were sporadic and temporary, only “designed to meet crude shortages in the US.”<sup>60</sup> Levy subscribed to this temporary thesis with a theory of pendulum motion between European maximum prices and U.S. minimum prices, which was in tune with ECA policy.<sup>61</sup> The cost-plus formula also won adherents inside the ECA.<sup>62</sup> However, the agency’s administration preferred to support an outreach strategy and seek voluntary price adjustments with the companies.

All endeavors resulted in greater pressure on the oil majors to close the gap between the intracompany transfer prices and the official ECA-financed prices.<sup>63</sup> In February 1949, Paul Hoffman, the agency’s director, advised companies that the price charged for Middle East crude oil sales to the United States had an important bearing on determining the competitive market price, and he requested a global reexamination of this issue. The reactions were contradictory, with Jersey Standard–Exxon and Caltex blatantly refusing any decline in the netback price of \$2.03/bbl, while Socony–Mobil agreed to think the issue over. The unprecedented backing of higher prices by Caltex should be understood in the context of the enhanced commercial flexibility that was secured by the company in the meantime. Indeed, this commitment reflected the willingness to maintain the equilibrium between the \$2.03/bbl official price, which was valid for ECA shipments and for Aramco sales, and the shadow \$1.43/bbl price, which was effective for intracompany transfers. Once the double-pricing arrangement was in force, there were no reasons to give up on the dollars earmarked for the European assistance program.

The Gulf Oil attitude was even more surprising. Retracting from parallel pricing, Gulf Oil broke with the oligopolistic consent and yielded two price reductions: 15 cents in April 1949 and then 13 cents

<sup>60</sup> Paul Green (ECA controller) to W. H. Pinckard (California Texas Company), 12 Aug. 1950, RUSFAA, Petroleum Branch – subject files #UD 734, correspondence to oil companies, box 1, NARA.

<sup>61</sup> Walter J. Levy, “The Role of American Petroleum in the World” (address to the National Petroleum Council, 25 Oct. 1949), RUSFAA, Petroleum Branch – subject files #UD 734, Socony–Standard Oil, box 7, NARA; Frank, *Crude Oil Prices*, 56.

<sup>62</sup> Morrison, *ECA and MSA Relations*, 9; Glenn H. Craig to Richard Bissel, Memorandum dated 10 Sept. 1949, 28 Sept. 1949, RUSFAA, Petroleum Branch – subject files #UD 734, Commodities oil reports, box 1, NARA; George W. Stocking, *The Pricing of Middle East oil, 10 September 1949*, RUSFAA, Petroleum Branch – subject files #UD 734, Commodities oil reports, box 1, NARA.

<sup>63</sup> Frank, *Crude Oil Prices*, 36–60.

in July 1949. With the downward adjustment of official Kuwait crude 31° API oil prices to \$1.75/bbl, all majors were compelled to follow suit, pushing the marker for Saudi light crude to \$1.71/bbl.

Gulf Oil's historical deviation in pricing best illustrates the prevalence of corporate self-interest over collusive practices, and it invariably stands out as the utmost deviant firm, at least in potential terms. In contrast with its other "sisters," the company explored the fastest-growing oil fields in the Middle East, supplied the residual demand for crude and petroleum products in Europe (i.e., the available portion of market demand not supplied by other firms in the market), and met the core demand for crude in the United States, where it operated a highly integrated business based on its East Texas oil fields.<sup>64</sup> For these reasons, Gulf Oil would be affected only marginally by any possible change in the ECA pricing policy while enjoying the freedom to replace European sales with American sales. Although the European markets had only a marginal bearing upon Gulf Oil's overseas exports, they also had more transactions with independent refining companies than with their own affiliates and made use of official crude prices rather than transfer prices.<sup>65</sup> The company was ranked as the top Middle East oil exporter to the United States at the time, with a 41 percent share of total crude invoices.<sup>66</sup> The Kuwait concession held by Gulf Oil (in joint partnership with Anglo-Iranian-BP) was not held back by any restrictive offtake clause similar to those found in Iraq or Saudi Arabia; therefore, the concessionaires were entirely free to pump unlimited quantities of crude oil at cost. Similarly, the concentration of the whole exploration operation into the single giant Burgan oil field enhanced productivity and rapid production growth. In every aspect of market heterogeneity, Gulf Oil stood out. If the company acted swiftly to break the collusive chain, siding conspicuously with the ECA authorities, this stemmed from its willingness to favor further inroads into the U.S. market to absorb the swelling Kuwait production without any rebound effect on the profits earned in Europe.<sup>67</sup> Additionally, Gulf Oil was quite sensitive to the mood of American political circles and public opinion and

<sup>64</sup> John G. McLean and Robert W. Haigh, *The Growth of Integrated Oil Companies* (Boston, 1954).

<sup>65</sup> Sidney A. Swensrud, *Gulf Oil: The First Fifty Years, 1901–1951* (New York, 1951), 23; Petroleum attaché in the U.K. to Chief of Petroleum Staff, 20 Aug. 1954, *FRUS, 1952–54*, vol. 9, 847–50.

<sup>66</sup> "Middle East Shipments to the U.S.," *October 1949–September 1950*, RUSFAA, Executive Secretariat #209, correspondence to and from oil companies – Gulf and Esso, box 2, NARA.

<sup>67</sup> Besides the debate with the ECA, there were further intercompany misunderstandings between Caltex and Gulf Oil as to the price to be charged in Europe. Brown, *Course of the Middle East*.

unwilling to jeopardize its U.S. business. Because the company was the supplier for the residual demand in the ECA's incumbent European market, it was also positioned to overturn the rules of the game and achieve its own ends.

Ironically, all efforts to objectify a pricing policy by grounding decisions on formulas ended up in prices being set by successive calibrations and negotiations. From the viewpoint of the authorities, while the \$2.03/bbl ceiling rested upon a system of logic (the main trade flows to Europe) and a principle of equity (netback equalization), the \$1.75/bbl Gulf Oil price was simply a "token reduction" imposed by the circumstances.<sup>68</sup> In terms of straightforward norms, the ECA was now back where it had started and had little margin to challenge the new plateau for official crude oil prices, which endured until July 1953.<sup>69</sup>

The scope for fixing a global and interconnected price for crude was partially misunderstood by contemporary oilmen. The anchor of the world system, the Texas-Caribbean price, proved deeply stable after 1948. In contrast, freight tanker rates imparted growing volatility to the final prices. This was something both new and unexpected because standard fixed rates had remained the norm for over a decade. During World War II, governments had been compelled to requisition tankers from the major private oil companies, conceiving a uniform system based on equal treatment: after allowing for port costs, bunker costs, and canal expenses, the net daily revenue was the same for all voyages regardless of departure point and destination.<sup>70</sup> These tanker voyage schedules remained in effect until 1948. The rate was identified by the issuing institution acronyms: USMC represented the rates published under the United States Maritime Commission authority; MOT represented those published by the British Ministry of Transport.

When government shipping controls ended, an effervescent market developed and the trade soon evolved toward negotiated shipping prices, in terms of USMC or MOT, plus or minus a percentage dictated by supply and demand. A specialized information business service soon flourished to report current USMC and MOT market rates for tanker charters along with the number of fixtures, inquiries for prompt vessels placed by oil companies, tonnage in demand, and general shipping information. Lincoln Ship Brokerage, Ocean Freight, Brokerage Corporation, SA Long Incorporated, and Platt's Oilgram provided the most reputable weekly and monthly bulletins. However, this was only the tip of the iceberg.

<sup>68</sup> *Pricing Middle East Oil* and George W. Stocking to Walter J. Levy, 6 Oct. 1949, RUSFAA, Petroleum Branch – subject files #UD 734, Commodities oil reports, box 1, NARA.

<sup>69</sup> Middle East crude oil prices, statement no. 1–3, Subject files, file 106331, BPA.

<sup>70</sup> Peter Brodie, *Commercial Shipping Handbook*, 2nd ed. (New York, 2006).

In contrast to the reports on independent charter vessels, the bulk of deadweight trade was undertaken by company-controlled oil tankers and did not enter the public domain. Under such circumstances, the calculus of netback prices continually raised disputes about the accuracy of the USMC rate selected.<sup>71</sup> Moreover, owing to the different distances to Europe and the United States, FOB Middle East prices tended to fluctuate inversely with tanker rates: the higher the tanker rate, the lower the netback price at the shipping port.

To ascertain whether the Eastern and Western hemisphere prices were connected or cut off by the course of events, Figure 1 shows three time-series: the official price of Arabian crude; the price at which Arabian crude equalized Venezuelan competition in northern Europe; and the price suited to equalize U.S.-Texas crude on the New York market. The greater the convergence among the three lines in the graph, the greater the synchronization of the global pricing system. The estimates draw upon archival data sources from the Caltex Oil Tanker Company, which depict the lowest haulage freights among the arm's-length subsidiaries.<sup>72</sup> Similarly, these figures are closer to ECA assessments.<sup>73</sup>

The consecutive overlapping of the dotted and the solid lines proves conclusively that both the Jersey Standard–Exxon endorsement of \$2.03/bbl and the Gulf Oil endorsement of \$1.75/bbl were almost perfect matches with northern Europe and North America netbacks at least through to the last quarter of 1950. The ECA's doubts regarding meaningless prices, arrived at by *ad hoc* adjustments (e.g., Gulf Oil's voluntary price cuts), were thus ill founded. The critical juncture of April–July 1949 was a turning point in the history of the world's prices because it shifted the point of equalization from northern Europe to the East Coast of the United States. Indeed, given the potential oil reserves in the Persian Gulf, April–July 1949 constituted the breakthrough moment when the Middle East became the central axis of the world petroleum economy. With the official price at \$1.75/bbl, Middle East producers could beat—or at least equal—the competition everywhere. When prices were aligned by the U.S. netback, a new yardstick ultimately emerged. To the best of our knowledge, Paul Frankel, a petroleum economist and consultant, had the foresight to see what was coming. In 1948, Frankel predicted that with exports to the United States “the tendency for only one FOB price level to be effective to all destinations would be inevitable.”<sup>74</sup>

<sup>71</sup> *International Petroleum Cartel*, 368.

<sup>72</sup> Arthur Syran and Harry J. Miller, *Voluntary Tanker Pool Meeting*, 10 Jan. 1951, RUSFAA, Arab Oil Litigation #43, Freight documents, box 1, NARA.

<sup>73</sup> Morrison, *ECA and MSA Relations*, 12.

<sup>74</sup> Paul Frankel, quoted in *International Petroleum Cartel*, 367.

## Squabbling Sisters / 703

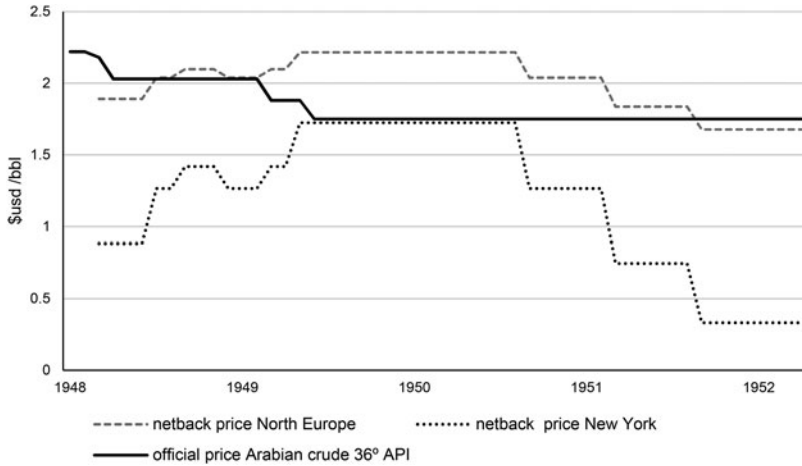


Figure 1. Arabian crude oil: official price, netback price in North Europe, and netback price on the New York market according to Caltex freight rates (Jan. 1948 to May 1952). (Sources: *Platt's Oil Handbook 1947–1953* [New York, 1948–1954]; *Petroleum Press Service 1949–1953* [London, 1950–1954]; *Bremer Jahrbuch der Weltschiffahrt Bremen World Shipping Yearbook 1952/53 and 1954/55* [Berlin, 1952–1955]; Caltex Freight Rates [1949–1955], Record of the U.S. Foreign Assistance Agencies, Arab Oil Litigation #43, Freight Documents, National Archives, Washington, D.C.; Jersey Freight Rates [1949–1955], Record of the U.S. Foreign Assistance Agencies, Arab Oil Litigation #43, Freight Documents, National Archives, Washington, D.C.).

The above conclusions are based on efficient tanker freight rates. However, the hypothesis can be tested more accurately. Figure 2 represents the same data but uses a weighted average for the tanker rates. Three groups are considered: Caltex and Royal Dutch Shell rates returned the most efficient haulage charges; Jersey Standard–Exxon freight rates were taken as indicative of less-efficient company-controlled transportation fleets, while the average prices published annually by Platt's Oil Handbook provided a thorough account of the third group of independent long-term charters (i.e., non-company-controlled shipping services that constituted a type of spot market for petroleum transportation). Because the Platt's data were gathered from ship brokers and tank steamer chartering agents, they comprised only on-the-spot transactions undertaken by decentralized agents and tanker terminal operators.<sup>75</sup> Lastly, the statistical information available on the number of ships in each of these groups was compiled from different sources, and the weights for the Caltex

<sup>75</sup> *Platt's Oil Handbook 1947–1953* (New York, 1948–1954); ECA Price Branch, *Preliminary Report on Prices Paid in ECA-Financed Petroleum Transactions*, Oct. 1949, 13–14, RUSFAA, Arab Oil Litigation #43, Freight documents, box 1, NARA.

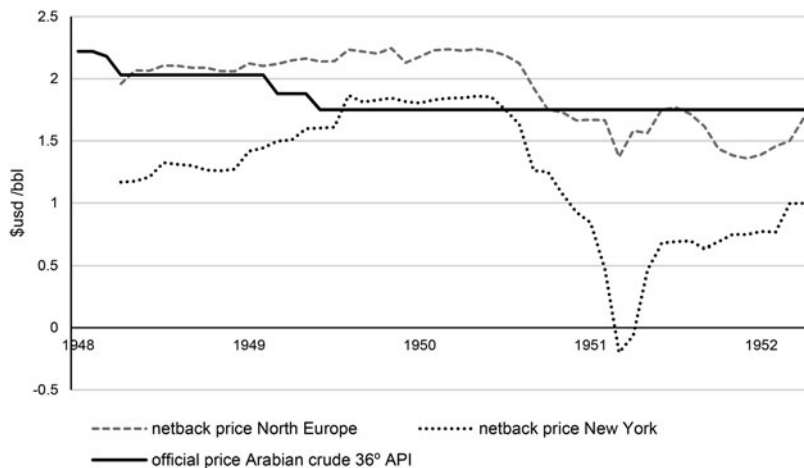


Figure 2. Arabian crude oil: official price, netback price in North Europe, and netback price in the New York market using weighted average freight rates (Jan. 1948 to May 1952). (Sources: *Platt's Oil Handbook 1947–1953* [New York, 1948–1954]; *Petroleum Press Service 1949–1953* [London, 1950–1954]; *Bremer Jahrbuch der Weltschiffahrt Bremen World Shipping Yearbook 1952/53 and 1954/55* [Berlin, 1952–1955]; Caltex Freight Rates [1949–1955], Record of the U.S. Foreign Assistance Agencies, Arab Oil Litigation #43, Freight Documents, National Archives, Washington, D.C.; Jersey Freight Rates [1949–1955], Record of the U.S. Foreign Assistance Agencies, Arab Oil Litigation #43, Freight Documents, National Archives, Washington, D.C.).

index, the Jersey index, and the spot market charter index were made proportional to their total number of ships, which were measured in equivalent standard T2 tankers with 12,000 tons deadweight.<sup>76</sup>

Overall, **Figure 2** corroborates the conclusions drawn so far concerning the effective matching of ECA official prices with netback estimates, the turn toward New York equalization, and the momentous nature of the \$1.75/bbl crude price adjustment. The contrast between the two graphs was obvious in the collapse of netback prices by the close of 1950, which was caused by the spike in tanker freight rates.<sup>77</sup> After this shortage, the shipbuilding industry witnessed a building boom that paved the way for the first generation of supertankers.<sup>78</sup> As mentioned earlier, one consequence of the inverse relationship between tanker rates and netback prices (i.e., the higher the tanker rates, the

<sup>76</sup> "World Tanker Fleet of Aramco Partners," 1 Mar. 1948, *MCUSFP*, 17; Bamberg, *History of the British Petroleum Company*; Howarth and Jonker, *Powering the Hydrocarbon Revolution*.

<sup>77</sup> *Petroleum Press Service*, London, 1950–1951.

<sup>78</sup> Leonard G. Fay, *Tanker Directory of the World* (London, 1959); Mike Ratcliffe, *Liquid Gold Ships: A History of the Tanker, 1859–1984* (London, 1985).



lower the netback price at the shipping port) was the contraction in the geographical penetration of Middle East crudes. This narrowed its competitive range to Mediterranean and Indian Ocean ports where high transport costs could still be accommodated more easily. As [Figure 2](#) applies a weighted average that also accounts for less efficient tankers, Middle East crude oil was then arriving onto the New York market with a much higher CIF price. Within this framework, the equalization of U.S. crude sank the Persian Gulf prices at their origins to such an extent that exports to the Western hemisphere completely lost their competitive edge.

In conclusion, periods of record freight rates associated with wide uncertainty tended to narrow the market inroads of the Middle East crudes. It was this turbulent “shipping market cycle,” rather than the pendulum motion between low and high crude prices, that ended up determining the market range for Persian Gulf petroleum.<sup>79</sup>

### Conclusion

The collapse of the Gulf-plus system, combined with outstanding discoveries of new reservoirs across the Arabian Peninsula and Persia, awoke latent competitive forces within the oligopolistic oil economy. After World War II, business differences regarding global vertical integration, market priorities, and Western-Eastern hemisphere competition heightened the fracture between the “historical core” cartel (Jersey Standard–Exxon and Royal Dutch Shell)—which had diversified investments in supply around the world and thus had an interest in pursuing a global pricing strategy—and the group of fringe, or latecomer, companies (Texaco, Standard of California–Chevron [grouped into Caltex], and Gulf Oil). These latter companies upheld the pricing strategies centered on Middle East production, where most of their export surplus was located. As a result of successive deviations from dominant collusive behavior, a new price system surfaced. The first breach came with Caltex’s opposition to a global standard, which was grounded on the usage of netback formulas. The netback method hindered competition because it envisaged the equalization of Arabian crude prices in Europe with the prices from Western Hemisphere exports, especially Venezuela and the United States, where core companies held their grip. To loosen the Gulf of Mexico straitjacket, Caltex insisted on a cost-plus formula, which provided for a low, competitive price for Arabian crude, and thus expanded the independent Eastern Hemisphere

<sup>79</sup> Martin Stopford, *Maritime Economics* (Boston, 1988); Y. H. V. Lun, O.-P. Hilmola, A. M. Goulielmos, K.-h. Lai, and T. C. E. Cheng, *Oil Transport Management* (London, 2013).

market. The fringe company represented the newcomer's perspective, which favored competitive prices set at the origin rather than at the destination, with regional, non-uniform ranges rendered flexible through variable allowances. Ultimately, the crude-pricing controversy resulted in the creation of a double-pricing system, based on the official or posted price, and a lower private-transfer price set between the shareholding company and its affiliates.

Next, the Gulf Oil Copernican revolution displaced netback prices from their European equalization axis toward the gravity force of the U.S. market. As mentioned earlier, this was the breakthrough moment when the Middle East became the keystone of the world petroleum economy, beating the competition at destinations all around the world. Therefore, the official \$1.75/bbl price stands as a historical landmark. Certainly, the fact that Caltex was the major Middle East exporter to Europe (and was the ECA supplier) and Gulf Oil was the major supplier to the United States accounts for their misalignments.

A global oil-pricing system briefly emerged from this chain of events, interlinking Middle East production centers in the Eastern Hemisphere with the American and Caribbean oil fields in the Western Hemisphere. Under stable freight tanker rates, this system ensured the global competitiveness of the Persian Gulf petroleum area.

. . .

NUNO LUÍS MADUREIRA is associate professor at the Instituto Universitário de Lisboa (ISCTE-IUL), CIES, Lisbon, Portugal, and works in the fields of history of energy and technology, and environmental history. Last book published is *Key Concepts in Energy* (Heidelberg and New York, 2014).