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## Joint Ventures, Antitrust, and Transnational Cartelization

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# ARTICLES

## Joint Ventures, Antitrust, and Transnational Cartelization

*Walter Adams\* and James W. Brock\*\**

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## I. INTRODUCTION

Joint ventures have fired corporate imaginations and captured the fancy of government officials, who perceive them as key weapons in the struggle to achieve global competitiveness.

Characterizing the trend as corporate America's version of the singles bar, *Business Week* reports that in the current rage for "strategic alliances," scarcely a day passes without the announcement of another cooperative inter-corporate agreement.<sup>1</sup> The *London Economist* reports that "just as the vogue for aggressive takeovers in America and Britain has come to an end, many of the world's biggest companies are scrambling to sign up joint-venture partners or to conclude an alliance with a confederate in some other country."<sup>2</sup> The *Wall Street Journal* describes the number of international joint ventures as having "rocketed" in recent years,<sup>3</sup> prompting some analysts to anoint them "the wave of the future."<sup>4</sup>

The paradoxical rationale advanced in support of these "partial mergers"<sup>5</sup> is that through cooperation they enhance competition. As articulated by one prominent industry coalition, whose membership includes the National Association of Manufacturers and the Chamber of Commerce of the United States, the

global business environment in which advanced technology ventures must compete is fast paced, expensive and demanding. Advanced technology products have short lives; new or improved products are always just over a nearby horizon, and the speed of innovation quickens each year. The cost of research, development and manufacturing of these products is astounding: a single production tool can cost millions of dollars. Investments in manufacturing are measured in hundreds of millions of dollars, and expenditures exceeding a half-billion dollars are not uncommon.<sup>6</sup>

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<sup>1</sup> Levine, *Corporate Odd Couples*, *BUS. WK.*, July 21, 1986, at 100.

<sup>2</sup> *The Latest Business Game*, *ECONOMIST*, May 5, 1990, at 16.

<sup>3</sup> Wysocki, *Cross-Border Alliances Become Favorite Way to Crack New Markets*, *Wall St. J.*, Mar. 26, 1990, at 1, col. 6.

<sup>4</sup> Levine, *supra* note 1.

<sup>5</sup> See *United States v. Penn-Olin Chemical Co.*, 378 U.S. 158 (1964).

<sup>6</sup> *The Government Role in Joint Production Ventures: Hearing Before the Subcomm. on Science, Research and Technology of the House Comm. on Science, Space, and Technology*, 101st Cong., 1st Sess. 244 (1989).

If America is to compete effectively, the coalition warns, "U.S. companies must have the flexibility to form joint manufacturing ventures to spread risks, pool resources, share technologies and combine production to lower costs." It urges an American-style response to the challenge of a global economy — what it calls "compacts of competitiveness" — facilitated by a relaxation of antitrust policy toward these intercorporate alliances.<sup>7</sup>

Some economists agree. They contend that "the need for cooperative arrangements seems to have increased, driven by the fragmentation of new industries like electronics coupled with steady escalation in the costs of innovation." These developments, they urge, demand "a re-examination of our antitrust laws, which have been slow to recognize the benefits of cooperative activity. . . . The new global economy, and the declining significance of American firms within it, require a less restrictive approach toward interfirm agreements, alliances, and consortia."<sup>8</sup>

Top officials in the Bush administration also agree. Former Commerce Secretary C. William Verity charges that "U.S. firms are losing the race to the marketplace. International competition is too fierce, and the half-life of technology too brief, for many companies economically to turn the fruits of research and development into products."<sup>9</sup> Joint ventures and corporate alliances, he claims, "would be the most efficient way to bring new products to market." But, he warns, attempts by American firms to engage in such cooperative arrangements are dangerously vulnerable to antitrust attack — a serious problem that he says produces "a chilling effect . . . on some kinds of technology development. Removing the artificial barrier imposed by fear of antitrust," he concludes, "will speed the translation of research into new products, and help U.S. firms regain their competitive edge in the global market."<sup>10</sup> As Commerce

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<sup>7</sup> *Id.* at 244-46. "It is obvious to everyone that joint ventures are the way to go these days," asserts Jeff Perlman of the U.S. Chamber of Commerce. "This is just one of the barnacles on American competition being scraped off." U.S. NEWS & WORLD REPORT, June 4, 1990, at 55.

<sup>8</sup> Jorde & Teece, *Competition and Cooperation: Striking the Right Balance*, 31 CALIF. MGMT. REV. 25, at 36 (Spring 1989).

These claims are scarcely novel. Nearly eighty years ago, in 1912, Charles Van Hise declared that "cooperation in industry in order to secure efficiency [is] a world-wide movement. The United States cannot resist it." He, too, ominously predicted that if "we isolate ourselves and insist upon the subdivision of industry below the highest economic efficiency and do not allow cooperation, we shall be defeated in the world's markets." C. VAN HISE, CONCENTRATION AND CONTROL: A SOLUTION OF THE TRUST PROBLEM IN THE UNITED STATES 277 (1912), as cited in Kovacic, *Failed Expectations: The Troubled Past and Uncertain Future of the Sherman Act as a Tool for Deconcentration*, 74 IOWA L. REV. 1105, at 1130, note 159 (1989).

<sup>9</sup> Verity, *U.S. Firms Get Tripped in Race to the Marketplace*, Wall St. J., Dec. 12, 1988, at A10, col. 3 (op-ed article).

<sup>10</sup> *Id.*

Secretary Robert Mosbacher boldly states: "All American industries deserve the opportunity to form cooperative ventures that will enhance their international competitiveness without exposing themselves to unwarranted antitrust attack."<sup>11</sup>

The proponents of joint ventures are also sure that they do not pose any meaningful market control problems. Omnipresent "global competition," they contend, will curb any cartelistic propensities that might tempt corporate partners. Thus, professors Thomas Jorde and David Teece observe that in the last two decades, "the level of competition facing firms in the U.S. economy has risen to a new height, heights driven in part by competition from East Asian and European multinationals." As a result, they assert, "the possibilities and opportunities to cartelize industries have dwindled and will stay low so long as the U.S. economy remains open. . . ."<sup>12</sup> They conclude that "concerns that cooperative activity will monopolize final product markets are quite misplaced."<sup>13</sup>

These claims, and the pertinacious urgency with which they have been pressed, have begun to significantly alter government policy. Corporate joint ventures are receiving steadily expanding, sympathetic treatment, including, most notably, an increasing degree of protection from antitrust prosecution. In 1982, in order to promote American exports abroad, Congress enacted the Export Trading Company Act, encouraging the formation of joint ventures in the provision of export trading services, and immunizing them from antitrust prosecution.<sup>14</sup> Two years later, in 1984, encouragement for joint ventures was extended to encompass joint ventures in research and development. The National Cooperative Research Act declares that for antitrust purposes such R&D alliances "shall not be deemed illegal per se."<sup>15</sup> In the same year, the Justice Department signalled its receptiveness to joint ventures, even those involving competitors in concentrated markets.<sup>16</sup> Indeed, some have seized upon the Reagan administration's fondness for corporate mergers and acquisitions<sup>17</sup> as grounds for more favorable treatment of corporate joint ventures. For example, Congressman Thomas Campbell,

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<sup>11</sup> *Mosbacher Promises to Unveil Shortly Proposal on Production Joint Ventures*, 57 ANTITRUST & TRADE REG. REP. 115 (July 27, 1989).

<sup>12</sup> Jorde & Teece, *supra* note 8 at 36.

<sup>13</sup> *Id.* at 33.

<sup>14</sup> Export Trading Act of 1982, 15 U.S.C. secs. 4001-4003 (1990).

<sup>15</sup> National Cooperative Research Act of 1984, 15 U.S.C. secs. 4301-4305 (1990).

<sup>16</sup> Taylor, *Joint Ventures Likely to Be Encouraged By Friendlier Attitude of U.S. Officials*, Wall St. J., Nov. 5, 1984, at 8.

<sup>17</sup> See W. ADAMS AND J. BROCK, DANGEROUS PURSUITS: MERGERS AND ACQUISITIONS IN THE AGE OF WALL STREET, chapter 2 (1989); Adams & Brock, *Reaganomics and the Transmogrification of Merger Policy*, 33 ANTITRUST BULL., 309 (1988).

a former FTC official, rhetorically asks: "If firms can merge, why can they not co-manufacture?"<sup>18</sup>

More recently, the Bush administration has proposed to accord even more expansive encouragement for corporate alliances, by amending the 1984 Act to include joint ventures in the actual manufacture of products. The Administration argues that such cooperative production agreements "may be natural outgrowths, or indeed integral parts, of efficient joint research and development."<sup>19</sup> At the same time, the House Judiciary Committee has approved legislation expanding the 1984 National Cooperative Research Act to include joint ventures in production, to shield these alliances from treble antitrust damages, and to direct that in any assessment of the anticompetitiveness of joint production ventures "the worldwide capacity of suppliers to provide a product, process, or service shall be considered."<sup>20</sup>

But should antitrust turn an increasingly blind eye toward corporate alliances and joint ventures? Do cartels and market control flowing from joint ventures constitute nothing more than antiquated, obsolete concerns in the putative "new" age of global competition? Do corporate partnerships enhance competitiveness or, beyond some threshold, do they constitute an institutional superstructure for neutralizing and undermining rivalry, domestic and international alike? At what point is this threshold reached, and what momentum is unleashed once joint ventures begin to proliferate?

This Article will analyze these questions. It shall do so by examining the nature, extent, growth and competitive consequences of joint ventures in four major areas. First, the petroleum industry will be analyzed, a field most prominently characterized by an elaborate web of joint ventures, institutionalized on a global scale over a period of seven decades. Next, will be automobiles, where joint ventures proliferated during the 1980s — as foreign competition exploded and cries for government import protection mounted — although, as we will note, the Big Three American firms participated in a particularly notable research "partnership" throughout the 1950s and 1960s. Next, the focus is on airlines, where trends toward corporate alliances have recently emerged and are rapidly gaining momentum — especially between deregulated American airlines and their foreign rivals. Then the Article examines the role joint

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<sup>18</sup> *Government Role in Joint Production Ventures Hearing*, *supra* note 6, at 13.

<sup>19</sup> *Bush Administration Unveils Proposal to Encourage Production Joint Ventures*, 58 ANTITRUST & TRADE REG. REP. 701 (May 10, 1990).

<sup>20</sup> *House Committee Clears Measures on Joint Ventures, Board Interlocks*, 58 ANTITRUST & TRADE REG. REP. 663 (May 3, 1990).

ventures played in the massive, global cartel movement of the 1920s and 1930s. Finally, the conclusion will summarize some implications of the analysis as it bears on the current rage for corporate partnerships and the increasingly favorable policy treatment accorded them.

## II. THE PETROLEUM INDUSTRY

“No other industry begins to approach petroleum in the number and importance of jointly owned enterprises,” John Blair wrote in his seminal study of the field.<sup>21</sup>

In oil, joint ventures between the world’s largest firms have a long history, both at home and abroad: First initiated in the 1920s, they subsequently have multiplied world-wide, binding the oil giants together at most of the industry’s main stages: exploration, production, refining, and pipeline transportation. In recent years, they have expanded to encompass the nationalized oil operations of Middle Eastern nations. Not surprisingly, joint ventures in petroleum have posed perennially vexing public policy problems.

### A. The Genesis of Joint Ventures

Joint petroleum ventures trace their origin to the desert sands of the Middle East, where the world’s leading oil companies sought to control the region’s huge crude deposits.

The first major joint venture was struck in 1928, when Exxon, Mobil, British Petroleum and Shell joined together to create, and cooperatively own and operate over 70% of the Iraq Petroleum Company.<sup>22</sup> Eight years later, two more oil giants, Standard Oil of California and Texaco, combined to establish another Middle Eastern joint production operation, Caltex, providing SoCal with a half interest in Texaco’s marketing operations east of Suez and compensating Texaco, in return, with a half ownership stake in SoCal’s Bahrein concessions.<sup>23</sup>

Thereafter, the Arabian American Oil Company (Aramco) was created as a Saudi Arabian production venture, to be jointly owned and operated by Exxon, Texaco, Mobil and SoCal (later Chevron);<sup>24</sup> the Kuwait Oil Company was established as a joint venture, co-owned and co-operated by Gulf and British Petroleum; while in Iran, the Iranian consortium eventually encompassed Exxon, Texaco, Gulf, Chevron, Mobil,

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<sup>21</sup> J. BLAIR, *THE CONTROL OF OIL* 136 (1976).

<sup>22</sup> *Id.* at 33.

<sup>23</sup> *Id.* at 36.

<sup>24</sup> Martin, *The Petroleum Industry*, in *THE STRUCTURE OF AMERICAN INDUSTRY* 43 (W. Adams ed.) (8th ed. 1989).

Shell and British Petroleum as joint venture partners.<sup>25</sup> These alliances included joint exploration, joint development and joint production; they distributed income to the partners based on their ownership shares; and they effected sales and transfers between the parent-partners.<sup>26</sup>

By 1952, the Federal Trade Commission found that joint ventures between the world's largest petroleum firms had flourished. The FTC reported that outside the United States, in the Middle East and elsewhere, "the operations of the seven international petroleum companies are combined through various inter-company holdings in subsidiary and affiliated companies. These holdings constitute partnerships in various areas of the world. Each of the companies has pyramids of subsidiary and affiliated companies in which ownership is shared with one or more of the other large companies."<sup>27</sup>

In the Middle East:

Jersey Standard [Exxon], Socony [Mobil], Royal Dutch-Shell, and Anglo-Iranian [British Petroleum] are linked through their joint holdings in Iraq Petroleum Co. and its nest of subsidiaries; Gulf and [British Petroleum] jointly own Kuwait Oil; Standard of California and [Texaco] have many joint relations through the California-Texas complex of companies and are tied to [Exxon] and [Mobil] through Arabian American Oil Co. and Trans-Arabian Pipe Line Co.<sup>28</sup>

In Europe, "there is the California-Texas cluster of companies linking together Standard of California and [Texaco]; [British Petroleum], Royal Dutch-Shell, [Mobil], and [Exxon] jointly own Companhia Africana de Petroleo; while Gulf and [Exxon] are tied through their holdings in United Petroleum Securities Corp."<sup>29</sup>

In the Far East, the FTC found

a combination of [Exxon], [Mobil], [Texaco], Standard of California, and Royal Dutch-Shell . . . The California-Texas combine also operates in the Far East, as does Standard-[Mobil], which is one of the important companies linking together [Exxon] and [Mobil]; and [British Petroleum] and Royal Dutch-Shell jointly conduct extensive operations in the Far East as well as Europe.<sup>30</sup>

And in Latin America, "a major complex of holdings links [Mobil], Standard of California, and [Texaco]; while another brings together

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<sup>25</sup> *Id.*

<sup>26</sup> *Id.* at 52.

<sup>27</sup> *The International Petroleum Cartel: Staff Report to the Federal Trade Commission, Submitted to the Subcomm. on Monopoly of the Senate Select Comm. on Small Business, 82d Cong., 2d Sess. 29 (1952).*

<sup>28</sup> *Id.* at 30.

<sup>29</sup> *Id.*

<sup>30</sup> *Id.*



[Exxon], Gulf, and Royal Dutch-Shell.”<sup>31</sup>

Outside the United States, largely as a result of their inordinate proclivity for partnerships (see Table 1), the seven major petroleum companies by the early-1970s came to collectively account for upwards of 80% of the Free World's oil supplies, including fully 90% of Middle East supplies.<sup>32</sup> In addition to joint ventures in crude production, the majors expanded their partnerships to encompass joint marketing ventures, as well as joint construction and operation of key pipeline facilities for transporting crude oil and refined petroleum products.<sup>33</sup>

## B. Institutionalization of Joint Ventures

In the United States, an equally elaborate network of alliances and joint ventures has been promulgated, intertwining the integrated majors in their bidding for leases, in their exploration activities, in their crude production operations, and in their control of the nation's pipeline transportation facilities.

In bidding for property leases, the oil giants have come to rely heavily on joint ventures in the form of joint bidding for properties. That is, instead of bidding independently against one another, they typically combine to submit group bids. Table 2, compiled by energy expert John W. Wilson in one of the most extensive investigations of oil joint ventures, attests to the extensive reliance of the majors on joint bids. It shows, for example, that during the period examined, Mobil submitted 8 independent bids and 103 joint bids; Amoco submitted 6 independent bids and 321 joint bids; Chevron submitted 79 independent bids and 108 joint bids; while Gulf submitted 17 independent bids and 32 joint bids.

Further, the Senate Judiciary Committee has found that “[J]oint bidding for leases almost invariably leads to joint *production* arrangements,” as the bidders typically carry their bidding alliances into the production of crude oil from the properties on which they bid.<sup>34</sup> Table 3 demonstrates the prevalence of joint ventures in the case of *offshore* production. But these production alliances are not limited to offshore production alone. “Even onshore,” the Senate Judiciary Committee has

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<sup>31</sup> *Id.*

<sup>32</sup> Measday & Martin, *The Petroleum Industry*, in *THE STRUCTURE OF AMERICAN INDUSTRY* 42 (W. Adams ed.) (7th ed. 1986); J. BLAIR, *supra* note 21, at 52.

<sup>33</sup> *International Petroleum Cartel*, *supra* note 27, at 27-28.

<sup>34</sup> PETROLEUM INDUSTRY COMPETITION ACT OF 1976, S. REP. NO. 1005, 94th Cong., 2nd Sess. 29 (1976) (emphasis added).

TABLE 1  
REPORTED FOREIGN JOINT VENTURES IN EXPLORATION AND DEVELOPMENT (1969-70)

|                          | Amerada | Atlantic | Cities | Con-<br>tinental | Getty | Gulf | Marathon | Mobil | Phillips | Chevron | Amoco | Exxon | Sohio | Shell | Sun | Texaco | Union |
|--------------------------|---------|----------|--------|------------------|-------|------|----------|-------|----------|---------|-------|-------|-------|-------|-----|--------|-------|
| Amerada                  | 1       |          |        |                  |       |      |          |       |          |         |       |       |       |       |     |        |       |
| Atlantic                 | 2       | 31       |        |                  |       |      |          |       |          |         |       |       |       |       |     |        |       |
| Cities                   | 15      | 9        | 11     |                  |       |      |          |       |          |         |       |       |       |       |     |        |       |
| Continental              |         | 6        | 2      | 2                |       |      |          |       |          |         |       |       |       |       |     |        |       |
| Getty                    |         | 1        |        | 1                |       |      |          |       |          |         |       |       |       |       |     |        |       |
| Gulf                     | 21      | 18       | 13     | 29               | 1     |      |          |       |          |         |       |       |       |       |     |        |       |
| Marathon                 | 2       | 10       |        | 1                |       | 9    |          |       |          |         |       |       |       |       |     |        |       |
| Mobil                    |         | 15       |        | 3                |       | 2    | 3        | 2     |          |         |       |       |       |       |     |        |       |
| Phillips                 |         |          |        |                  |       |      |          |       |          |         |       |       |       |       |     |        |       |
| Standard of California   |         |          |        |                  |       |      |          |       | 14       | 3       |       |       |       |       |     |        |       |
| (Chevron)                |         |          |        |                  |       |      |          |       |          |         |       |       |       |       |     |        |       |
| Standard of Indiana      |         |          |        |                  |       |      |          |       |          |         |       |       |       |       |     |        |       |
| (Amoco)                  | 7       | 10       | 5      |                  |       | 7    |          | 10    | 2        |         |       |       |       |       |     |        |       |
| Standard of New Jersey   |         |          |        |                  |       |      |          |       |          |         |       |       |       |       |     |        |       |
| (Exxon)                  | 5       | 1        | 1      | 1                | 5     | 7    | 1        | 33    | 5        | 8       | 13    |       |       |       |     |        |       |
| Standard of Ohio (Sohio) | 2       | 3        | 3      | 4                |       | 12   |          | 15    | 1        | 4       |       | 10    |       |       |     |        |       |
| Shell                    | 4       | 3        |        | 6                |       | 15   | 4        | 23    | 2        | 17      | 2     | 63    | 66    |       |     |        |       |
| Sun                      | 8       | 36       | 4      | 4                | 12    | 2    | 4        | 5     | 24       |         | 9     | 4     | 1     | 1     |     |        |       |
| Texaco                   | 2       | 9        | 5      | 3                |       | 28   | 2        | 15    | 2        | 59      | 4     | 10    | 6     | 22    | 6   |        |       |
| Union                    | 5       | 17       | 2      | 6                | 2     | 1    | 2        | 2     | 1        |         | 9     | 2     |       | 19    | 1   |        |       |

Source: The Natural Gas Industry: Hearing before the Subcommittee on Antitrust and Monopoly of the Senate Committee on the Judiciary, part 1, 93d Cong., 1st Sess. 496 (1973) (Testimony of John Wilson, Chief, Division of Economic Studies, Federal Power Commission).

TABLE 2  
JOINT BIDDING IN FEDERAL OFFSHORE LEASE SALES  
1970-1972

| <u>Company</u> | <u>Number of<br/>Independent Bids</u> | <u>Number of<br/>Joint Bids</u> |
|----------------|---------------------------------------|---------------------------------|
| Amerada Hess   | 0                                     | 168                             |
| Amoco          | 6                                     | 321                             |
| ARCO           | 12                                    | 293                             |
| Chevron        | 79                                    | 108                             |
| Cities Service | 7                                     | 372                             |
| Conoco         | 27                                    | 384                             |
| Exxon          | 80                                    | 0                               |
| Getty          | 0                                     | 281                             |
| Gulf           | 17                                    | 32                              |
| Marathon       | 24                                    | 214                             |
| Mobil          | 8                                     | 103                             |
| Phillips       | 0                                     | 169                             |
| Shell          | 59                                    | 93                              |
| Sun            | 115                                   | 2                               |
| Texaco         | 15                                    | 32                              |
| Union          | 0                                     | 245                             |

Source: The Natural Gas Industry: Hearing Before the Subcomm. on Antitrust and Monopoly of the Senate Comm. on the Judiciary, part 1, 93rd Cong., 1st Sess. 481 (1973).

TABLE 3  
JOINT OWNERSHIP OF FEDERAL OFFSHORE PRODUCING LEASES

| <u>Company</u> | <u>Number of Leases</u> | <u>Independently Owned</u> |
|----------------|-------------------------|----------------------------|
| Amerada Hess   | 15                      | 0                          |
| Amoco          | 60                      | 3                          |
| ARCO           | 94                      | 3                          |
| Chevron        | 105                     | 86                         |
| Cities Service | 101                     | 1                          |
| Conoco         | 119                     | 1                          |
| Exxon          | 52                      | 43                         |
| Getty          | 100                     | 2                          |
| Gulf           | 51                      | 34                         |
| Marathon       | 18                      | 0                          |
| Mobil          | 52                      | 6                          |
| Phillips       | 16                      | 3                          |
| Shell          | 68                      | 64                         |
| Sun            | 19                      | 0                          |
| Texaco         | 55                      | 16                         |
| Union          | 37                      | 18                         |
| Totals         | 962                     | 280                        |

Source: The Natural Gas Industry: Hearing Before the Subcomm. on Antitrust and Monopoly of the Senate Comm. on the Judiciary, part 1, 93rd Cong., 1st Sess. 486-87 (1973).

found, "a large amount of crude oil is produced jointly."<sup>35</sup> Tables 4 and 5 illustrate the prevalence of partnerships in *onshore* production, showing the number of joint ventures between the oil majors in the oil-rich Permian Basin of Texas and Louisiana.

TABLE 4  
JOINT OWNERSHIP OF STATE OF LOUISIANA PETROLEUM  
LEASES BY LARGE MAJOR PRODUCERS

| Company and major partners | Number<br>of<br>jointly<br>held<br>state<br>leases | Company and major partners | Number<br>of<br>jointly<br>held<br>state<br>leases |
|----------------------------|--|----------------------------|--|
| Amerada-Hess:              |  | GETTY—Continued            |  |
| Phillips .....             | 36   | Amoco .....                | 4  |
| Amoco .....                | 10   | Mobil .....                | 3  |
| Sohio .....                | 2  | Sun .....                  | 3  |
| Atlantic-Richfield:        |  | Shell .....                | 2  |
| Cities .....               | 27   | Texaco .....               | 2  |
| Continental .....          | 28   | Gulf:                      |  |
| Getty .....                | 26   | Exxon .....                | 62   |
| Union .....                | 10   | Getty .....                | 51   |
| Marathon .....             | 7  | Sohio .....                | 13   |
| Texaco .....               | 4  | Shell .....                | 12   |
| Tenneco .....              | 4  | Amoco .....                | 7  |
| Amoco .....                | 3  | Texaco .....               | 6  |
| Chevron .....              | 2  | Chevron .....              | 6  |
| Sohio .....                | 2  | Tenneco .....              | 5  |
| Cities Service:            |  | Mobil .....                | 5  |
| Atlantic .....             | 27   | Continental .....          | 3  |
| Continental .....          | 27   | Sun .....                  | 3  |
| Getty .....                | 31   | Phillips .....             | 2  |
| Exxon .....                | 2  | Amerada .....              | 2  |
| Continental:               |  | Marathon:                  |  |
| Atlantic .....             | 28   | Atlantic .....             | 7  |
| Cities .....               | 27   | Tenneco .....              | 3  |
| Getty .....                | 27   | Mobil:                     |  |
| Mobil .....                | 16   | Continental .....          | 16   |
| Exxon .....                | 13   | Amoco .....                | 8  |
| Amoco .....                | 11   | Gulf .....                 | 5  |
| Sun .....                  | 11   | Sun .....                  | 4  |
| Tenneco .....              | 3  | Texaco .....               | 4  |
| Gulf .....                 | 3  | Tenneco .....              | 3  |
| Getty:                     |  | Getty .....                | 3  |
| Gulf .....                 | 51   | Exxon .....                | 2  |
| Atlantic .....             | 26   | Phillips:                  |  |
| Cities .....               | 31   | Amerada .....              | 36   |
| Continental .....          | 27   | Sun .....                  | 7  |
| Exxon .....                | 27   | Amoco .....                | 3  |
| Sohio .....                | 4  | Gulf .....                 | 2  |
| Tenneco .....              | 4  |                            |  |

<sup>35</sup> *Id.*

|                   |    |                   |    |
|-------------------|----|-------------------|----|
| Shell:            |    | Sohio             |    |
| Gulf .....        | 12 | Gulf .....        | 13 |
| Chevron .....     | 8  | Getty .....       | 4  |
| Exxon .....       | 5  | Atlantic .....    | 2  |
| Amoco .....       | 5  | Amerada .....     | 2  |
| Texaco .....      | 5  | Sun:              |    |
| Getty .....       | 2  | Continental ..... | 11 |
| Chevron:          |    | Phillips .....    | 7  |
| Shell .....       | 8  | Amoco .....       | 5  |
| Gulf .....        | 6  | Mobil .....       | 4  |
| Texaco .....      | 3  | Getty .....       | 3  |
| Exxon .....       | 3  | Gulf .....        | 3  |
| Atlantic .....    | 3  | Tenneco .....     | 3  |
| Amoco:            |    | Union .....       | 3  |
| Texaco .....      | 11 | Tenneco:          |    |
| Continental ..... | 11 | Exxon .....       | 5  |
| Amerada .....     | 10 | Amoco .....       | 5  |
| Mobil .....       | 8  | Gulf .....        | 5  |
| Gulf .....        | 7  | Atlantic .....    | 4  |
| Shell .....       | 5  | Getty .....       | 4  |
| Sun .....         | 5  | Continental ..... | 3  |
| Tenneco .....     | 5  | Marathon .....    | 3  |
| Exxon .....       | 4  | Mobil .....       | 3  |
| Getty .....       | 4  | Sun .....         | 3  |
| Atlantic .....    | 3  | Texaco:           |    |
| Phillips .....    | 3  | Exxon .....       | 11 |
| Union .....       | 3  | Amoco .....       | 11 |
| Exxon:            |    | Gulf .....        | 6  |
| Gulf .....        | 62 | Shell .....       | 5  |
| Getty .....       | 27 | Mobil .....       | 4  |
| Continental ..... | 13 | Atlantic .....    | 4  |
| Texaco .....      | 11 | Chevron .....     | 3  |
| Tenneco .....     | 5  | Getty .....       | 2  |
| Shell .....       | 5  | Union .....       | 2  |
| Amoco .....       | 4  | Union Oil:        |    |
| Chevron .....     | 3  | Atlantic .....    | 10 |
| Mobil .....       | 2  | Amoco .....       | 3  |
| Cities .....      | 2  | Sun .....         | 3  |
| Union .....       | 2  | Exxon .....       | 2  |
|                   |    | Texaco .....      | 2  |

Source: The Natural Gas Industry: Hearing before the Subcommittee on Antitrust and Monopoly of the Senate Committee on the Judiciary, part 1, 93d Cong., 1st Sess. 490 (1973) (Testimony of John W. Wilson, Chief Division of Economic Studies, Federal Power Commission).

In addition, since the 1950s, the integrated majors have banded together to construct, and to jointly own and operate, most of the nation's crude and petroleum product pipelines.<sup>36</sup> As a result, the majors have come to control approximately 90% of all U.S. pipeline systems.<sup>37</sup> And as Tables 6 and 7 document, the bulk of the nation's pipelines are controlled by alliances between the integrated majors, including Colonial (the nation's largest refined product pipeline, stretching from the Gulf

<sup>36</sup> See generally, Adams & Brock, *Deregulation or Divestiture: The Case of Petroleum Pipelines*, 19 WAKE FOREST L. REV. 705 (1983).

<sup>37</sup> *Id.* at 711.

TABLE 5  
JOINT PRODUCTION IN THE PERMIAN BASIN (TEXAS)—MATRIX SHOWS NUMBER OF JOINT UNITIZATION AGREEMENTS

|                                | Amerada | Atlantic | Cities | Conti-<br>nenial | Getty | Gulf | Mara-<br>thon | Mobil | Phillips | Shell | Amoco | Exxon | Sohio | Sun | Texaco | Union |
|--------------------------------|---------|----------|--------|------------------|-------|------|---------------|-------|----------|-------|-------|-------|-------|-----|--------|-------|
| Amerada                        | 16      |          |        |                  |       |      |               |       |          |       |       |       |       |     |        |       |
| Atlantic                       | 14      | 32       |        |                  |       |      |               |       |          |       |       |       |       |     |        |       |
| Cities                         | 8       | 18       |        |                  |       |      |               |       |          |       |       |       |       |     |        |       |
| Continental                    | 17      | 32       | 15     |                  |       |      |               |       |          |       |       |       |       |     |        |       |
| Getty (Skelly)                 | 5       | 3        | 12     | 9                |       |      |               |       |          |       |       |       |       |     |        |       |
| Gulf                           | 7       | 10       | 6      | 4                | 8     |      |               |       |          |       |       |       |       |     |        |       |
| Marathon                       | 9       | 25       | 14     | 10               | 20    | 6    |               |       |          |       |       |       |       |     |        |       |
| Mobil                          | 13      | 33       | 20     | 15               | 20    | 12   | 8             |       |          |       |       |       |       |     |        |       |
| Phillips                       | 9       | 28       | 15     | 11               | 17    | 11   | 6             | 13    |          |       |       |       |       |     |        |       |
| Shell                          | 18      | 36       | 30     | 20               | 29    | 21   | 8             | 10    | 16       |       |       |       |       |     |        |       |
| Standard of Indiana (Amoco)    | 12      | 29       | 14     | 13               | 18    | 20   | 9             | 24    | 29       | 25    |       |       |       |     |        |       |
| Standard of New Jersey (Exxon) | 4       | 10       | 4      | 6                | 6     | 5    | 2             | 6     | 6        | 2     | 8     |       |       |     |        |       |
| Standard of Ohio (Sohio)       | 12      | 29       | 20     | 13               | 23    | 15   | 5             | 14    | 21       | 15    | 33    | 17    | 6     |     |        |       |
| Sun                            | 12      | 42       | 23     | 19               | 25    | 23   | 8             | 19    | 22       | 18    | 30    | 22    | 10    | 23  |        |       |
| Texaco                         | 5       | 18       | 12     | 5                | 13    | 13   | 4             | 13    | 11       | 5     | 21    | 12    | 7     | 17  | 11     |       |
| Union                          |         |          |        |                  |       |      |               |       |          |       |       |       |       |     |        |       |

Source: The Natural Gas Industry: Hearing before the Subcommittee on Antitrust and Monopoly of the Senate Committee on the Judiciary, part 1, 93d Cong., 1st Sess. 493 (1973) (Testimony of John Wilson, Chief, Division of Economic Studies, Federal Power Commission).

TABLE 6  
JOINT VENTURES: CRUDE PIPELINES

| <u>Pipeline</u>          | <u>Parent</u>                 | <u>Ownership Share</u> |
|--------------------------|-------------------------------|------------------------|
| Arapahoe Pipe Line Co.   | Union                         | 50%                    |
|                          | Atlantic Richfield            | 50                     |
| Butte Pipe Line Co.      | Shell                         | 51%                    |
|                          | Murphy                        | 20                     |
|                          | Continental                   | 12.5                   |
|                          | Burlington Northern           | 10                     |
|                          | Western Crude Oil             | 19                     |
| Capline                  | Southcap                      | 22.341%                |
|                          | Ashland                       | 20.264                 |
|                          | Texas                         | 18.278                 |
|                          | Shell                         | 12.807                 |
|                          | Marathon                      | 10.392                 |
|                          | Mid-Valley                    | 9.871                  |
|                          | Amoco                         | 6.047                  |
| Chicap Pipe Line Co.     | Union                         | 48.1%                  |
|                          | Clark                         | 22.8                   |
|                          | Amoco                         | 29.2                   |
| Cook Inlet Pipe Line Co. | Atlantic Richfield            | 20%                    |
|                          | Marathon                      | 30                     |
|                          | Union Oil                     | 30                     |
|                          | Mobil                         | 20                     |
| Explorer Pipeline Co.    | Apco                          | 2.9%                   |
|                          | Cities Service                | 6.8                    |
|                          | Conoco                        | 7.7                    |
|                          | Gulf                          | 16.7                   |
|                          | Phillips                      | 4.5                    |
|                          | Shell                         | 26.0                   |
|                          | Sun                           | 9.4                    |
|                          | Texaco                        | 16.0                   |
|                          | Marathon                      | 10                     |
|                          | Kaw Pipe Line Co.             | Texaco                 |
| Kenai Pipe Line Co.      | Cities Service                | 33.3                   |
|                          | Phillips                      | 33.3                   |
|                          | Atlantic Richfield            | 50%                    |
| Mid-Valley Pipeline Co.  | Standard Oil (Cal.)           | 50                     |
|                          | Sun                           | 50%                    |
| Osage Pipeline Co.       | Standard Oil (Ohio)           | 50                     |
|                          | Skelly (Getty)                | 50%                    |
|                          | National Coop. Refinery Assn. | 20                     |
| Platte Pipe Line Co.     | Mobil                         | 20                     |
|                          | American Petrofina            | 10                     |
|                          | Continental                   | 20%                    |
|                          | Marathon                      | 25                     |
| Seaway Pipeline, Inc.    | Union                         | 15                     |
|                          | Atlantic Richfield            | 25                     |
|                          | Gulf                          | 15                     |
|                          | Apco                          | 2.0%                   |
|                          | Continental                   | 15.6                   |
|                          | CRA, Inc.                     | 12.0                   |

TABLE 6 (CONTINUED)

|                              |                            |        |
|------------------------------|----------------------------|--------|
|                              | Diamond Shamrock Corp.     | 7.0    |
|                              | Midland Coops.             | 9.0    |
|                              | Phillips                   | 42.4   |
| Southcap Pipeline Co.        | Union                      | 50%    |
|                              | Clark                      | 50     |
| Tecumseh Pipe Line Co.       | Atlantic Richfield         | 40%    |
|                              | Union                      | 40     |
|                              | Ashland                    | 20     |
| Texas-New Mexico Pipeline    | Texaco                     | 45%    |
|                              | Atlantic Richfield         | 35     |
|                              | Cities Service             | 10     |
|                              | Getty                      | 10     |
| Texoma Pipe Line Co.         | Kerr-McGee                 | 10.1%  |
|                              | Lion (Tosco)               | 5.0    |
|                              | Mobil                      | 10.1   |
|                              | Rock Island Refinery       | 5.0    |
|                              | Skelly (Getty)             | 10.1   |
|                              | Sun                        | 25.0   |
|                              | United Refining            | 7.0    |
|                              | Vickers Petroleum          | 2.7    |
|                              | Western Crude Oil          | 20.0   |
|                              | Texas Eastern Transmission | 5.0    |
| Trans-Alaska Pipeline        | Sohio                      | 33.24% |
|                              | Arco                       | 20.96  |
|                              | Exxon                      | 19.93  |
|                              | BP                         | 16.15  |
|                              | Mobil                      | 4.98   |
|                              | Phillips                   | 1.63   |
|                              | Union                      | 1.63   |
|                              | Amerada Hess               | 1.46   |
| West Texas Gulf Pipeline Co. | Gulf                       | 57.7%  |
|                              | Cities Service             | 11.4   |
|                              | Sun                        | 12.6   |
|                              | Union                      | 9.0    |
|                              | Standard Oil (Ohio)        | 9.2    |

Source: Adams & Brock, *Deregulation or Divestiture: The Case of Petroleum Pipelines*, 19 Wake Forest Law Rev. 705, 714-716 (1983).

Coast, through the southeastern United States, and terminating in New York), the Olympic, the Explorer and the Capline pipelines, as well as the Trans-Alaska Pipeline System. Overall, eleven of the twenty largest U.S. pipelines systems are owned and operated as joint ventures between the major oil companies, with jointly owned pipelines accounting for three-quarters of total national pipeline capacity.<sup>38</sup>

Finally, alliances in oil have been expanded in recent years to include joint ventures between the international oil majors and state-owned producers in the Middle East. Kuwait, for example, has acquired a 22%

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<sup>38</sup> *Petroleum Pipeline Regulatory Reform Bill: Hearings on S. 1626 Before the Subcomm. on Energy Regulation of the Senate Comm. on Energy and Natural Resources*, 97th Cong., 2d Sess. 31 (1982).



TABLE 7  
JOINT VENTURES: REFINED PRODUCT PIPELINES

| <u>Company</u>             | <u>Parent</u>       | <u>Ownership<br/>Share</u> |
|----------------------------|---------------------|----------------------------|
| Badger Pipe Line Co.       | Atlantic Richfield  | 34%                        |
|                            | Cities Service      | 32                         |
|                            | Texaco              | 22                         |
|                            | Union               | 12                         |
| Colonial Pipeline Co.      | Amoco               | 14.3%                      |
|                            | Atlantic Richfield  | 1.6                        |
|                            | BP                  | 9.0                        |
|                            | Cities Service      | 14.0                       |
|                            | Continental         | 7.5                        |
|                            | Mobil               | 11.5                       |
|                            | Phillips            | 7.1                        |
|                            | Texaco              | 14.3                       |
|                            | Gulf                | 16.8                       |
|                            | Union               | 4.0                        |
| Lake Charles Pipe Line Co. | Continental         | 50%                        |
|                            | Cities Service      | 50                         |
| Laurel Pipeline Co.        | Gulf                | 49.1%                      |
|                            | Texaco              | 33.9                       |
|                            | BP                  | 17.0                       |
| Olympic Pipe Line Co.      | Shell               | 43.5%                      |
|                            | Mobil               | 29.5                       |
|                            | Texaco              | 27.0                       |
| Plantation Pipe Line Co.   | Exxon               | 48.8%                      |
|                            | Standard Oil (Cal.) | 27.1                       |
|                            | Shell               | 24.0                       |
| West Shore Pipeline Corp.  | Shell               | 20.0%                      |
|                            | Mobil               | 14.0                       |
|                            | Texaco              | 9.0                        |
|                            | Amoco               | 16.5                       |
|                            | Exxon               | 3.5                        |
| Wolverine Pipe Line Co.    | Shell               | 7.0%                       |
|                            | Texaco              | 17.0                       |
|                            | Cities Service      | 8                          |
|                            | Union               | 26                         |
|                            | Clark               | 11                         |
|                            | Marathon            | 10                         |
|                            | Mobil               | 21                         |
|                            | Amoco               | 40%                        |
| Wyco Pipe Line Co.         | Texaco              | 40                         |
|                            | Mobil               | 20                         |
|                            | Continental         | 40%                        |
| Yellowstone Pipe Line Co.  | Exxon               | 40                         |
|                            | Husky               | 6                          |
|                            | Union               | 14                         |

Source: Adams & Brock, *Deregulation or Divestiture: The Case of Petroleum Pipelines*, 19 Wake Forest Law Rev. 705, 716-717 (1983).

equity interest in British Petroleum, while Venezuela has utilized joint ventures to secure partial ownership stakes in refineries in West Germany, Sweden, Belgium, and the United States.<sup>39</sup> Other examples include the Pemref joint refining venture between Mobil Oil and the Saudi government, the Yanbu petrochemical joint venture between Mobil and the Saudi government,<sup>40</sup> and the Al-Jubail petrochemical joint venture between Exxon and the Saudi government.<sup>41</sup> And in 1988, Aramco, acting on behalf of the Saudi government, expended \$800 million to purchase half ownership in Texaco's American refining and marketing operations in 23 eastern and Gulf Coast states, including three Texaco refinery facilities (one of which is the largest in the world), as well as some 11,000 gasoline stations.<sup>42</sup>

### C. Public Policy Issues

In oil, then, joint ventures — joint-bidding, joint-production, joint-ownership, joint-refining, joint-pipelining — organizationally conjoin the world's largest producers, encompass virtually every major stage of the industry, and reach into virtually every corner of the globe. But in their scope and magnitude, joint ventures in oil raise a host of disturbing questions.

First, are these joint ventures composed of small firms forced to combine with one another in a desperate struggle to meet the industry's minimum capital requirements? Clearly, they are petroleum giants ranking among the very largest of all industrial concerns, not just in the United States, but worldwide. Four of the world's ten largest industrial firms, and six of the twenty largest, are oil companies;<sup>43</sup> in the United States, four of the country's ten largest industrial firms, and nine of the twenty largest, are oil companies.<sup>44</sup> As Table 8 attests, the ten largest oil companies have combined sales of \$334 billion, combined profits of \$16.8 billion, and combined assets of \$335 billion. In fact, the top twenty oil giants together accounted for fully 83% of the increase in net income recorded for all Fortune 500 firms *combined* in the 1979-1980 period<sup>45</sup> —

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<sup>39</sup> Martin, *supra* note 24, at 55.

<sup>40</sup> MOBIL CORP., 1985 ANNUAL REPORT 8 (1985).

<sup>41</sup> EXXON CORP., 1983 ANNUAL REPORT 19 (1984).

<sup>42</sup> Tanner, *Saudis Sign With Texaco for Venture in U.S. in Bid to Become Major Refiner*, Wall St. J., Nov. 11, 1988, at C13.

<sup>43</sup> *The International 500*, FORTUNE, July 31, 1989, at 282 (ranking includes Conoco as a subsidiary of DuPont).

<sup>44</sup> *The Fortune 500*, FORTUNE, Apr. 23, 1990, at 346 (ranking includes Conoco as a subsidiary of DuPont, and Marathon as a subsidiary of USX).

<sup>45</sup> SUBCOMM. ON OVERSIGHT AND INVESTIGATIONS OF THE HOUSE COMM. ON ENERGY AND

TABLE 8  
FINANCIAL PROFILES OF THE TEN  
LARGEST U.S. PETROLEUM CORPORATIONS\*

| <u>Company</u> | <u>Sales</u>   | <u>Profits</u> | <u>Assets</u>  |
|----------------|----------------|----------------|----------------|
| Exxon          | \$ 86.6        | \$ 3.5         | \$ 83.2        |
| Mobil          | 51.0           | 1.8            | 39.1           |
| Conoco/DuPont  | 35.2           | 2.5            | 34.7           |
| Texaco         | 32.4           | 2.4            | 25.6           |
| Chevron        | 29.4           | 0.3            | 33.9           |
| Amoco          | 24.2           | 1.6            | 30.4           |
| Shell-USA      | 21.7           | 1.4            | 27.6           |
| Occidental     | 20.1           | 0.3            | 20.7           |
| Marathon/USX   | 17.8           | 1.0            | 17.5           |
| ARCO           | 15.9           | 2.0            | 22.3           |
| <b>Totals</b>  | <b>\$334.3</b> | <b>\$16.8</b>  | <b>\$335.0</b> |

\* Sales, profits and assets in billions.

Source: The Fortune 500, FORTUNE, Apr. 23, 1990, at 346.

evidence scarcely indicative of suboptimal size or inadequate cash flow.

Second, is the pervasiveness of alliances and joint ventures attributable solely to the industry's massive capital requirements? Granted, some offshore oil tracts and pipeline projects may be expensive. But does this necessitate that the same firms persistently join with one another to bid on *all* offshore tracts, and that they combine together to construct virtually *all* pipeline systems, and that they jointly operate virtually *all* major fields in the U.S. and throughout the rest of the world?

Realistically, the extreme degree of corporate alliances can hardly be attributed to the need to balance risk, when some 90% of the most risky wells — "wildcat" wells not associated with known deposits of oil and gas — are drilled by small independent operators<sup>46</sup> (whose efficiency in this activity may be significantly greater than that of the integrated majors).<sup>47</sup>

Moreover, the multi-billions of dollars spent by the oil giants on

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COMMERCE, 97TH CONG., 1ST SESS., THE CHANGING DISTRIBUTION OF INDUSTRIAL PROFITS: THE OIL AND GAS INDUSTRY WITHIN THE FORTUNE 500, 1978-80 14 (Comm. Print 1981).

<sup>46</sup> See Thurow, *Buoyed by High Prices, Vexed by Government, Oilman Keeps Drilling*, Wall St. J., Sept. 22, 1980, at 1; R. SHERRILL, THE OIL FOLLIES OF 1970-1980 62 (1983); Newport, *Get Ready for the Coming Oil Crisis*, FORTUNE, Mar. 16, 1987, at 51.

<sup>47</sup> See Nulty, *The New Breed of Wildcatters*, FORTUNE, Sept. 28, 1987, at 111.

In a related vein, it is important to note that Exxon, the largest and most vertically integrated of the oil giants, has vigorously and repeatedly *denied* before state tax commissions that (in Exxon's words) its production, refining, marketing and transportation operations "are integral parts of a unitary business composed of all functions combined; rather . . . each function is independent and not unitary to, or an integral part of any other function." See Adams, *Vertical Divestiture of the Petro-*

mergers and acquisitions in recent years — an estimated cumulative amount of \$26.6 billion in the four-year period 1978-1981 alone,<sup>48</sup> and including such unrelated acquisitions as Mobil's \$1.5 billion purchase of the Montgomery Ward retail chain, Exxon's \$613 million purchase of Reliance Electric, Occidental Petroleum's \$795 million purchase of Iowa Beef Processors, Sohio's \$1.8 billion purchase of Kennecott Copper, and ARCO's \$2.0 billion purchase of Anaconda Mining<sup>49</sup> — represent enormous amounts of capital obviously not required by the majors in their ongoing oil operations. Such discretionary capital spending outside the industry would seem to negate the claim that joint ventures are imperative for survival in this highly capital-intensive industry.

Third, has this extensive, long-established network of joint ventures served to enhance American energy security or has it had the opposite effect? For example, did the Iraq Consortium's deliberate suppression of crude discoveries over three decades, in order to keep these additional supplies off the world market, contribute to American energy security in any way?<sup>50</sup> Did the huge monopoly profits reaped by the oil giants in their Middle East joint production ventures not antagonize OPEC governments, and eventually embolden them to take retaliatory action?<sup>51</sup> Did the majors' collective machinations to control the flow of oil into the world market — including their collective allocations of production cut-backs among Middle East nations — not significantly contribute to OPEC animosity?<sup>52</sup> Indeed, have Big Oil's joint ventures not in and of themselves strengthened OPEC, and facilitated its survival, by (in the words of the U.S. State Department's Bureau of Intelligence) providing "a cartel-like marketing mechanism that allows easy pass-through of

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*leum Majors: An Affirmative Case*, 30 VAND. L. REV. 1115, at 1140-41 (1977), and the sources cited therein. (emphasis added)

<sup>48</sup> STAFF REPORT PREPARED FOR THE SUBCOMM. ON OVERSIGHT AND INVESTIGATIONS OF THE HOUSE COMM. ON ENERGY AND COMMERCE, 97TH CONG., 2ND SESS., MERGERS AND ACQUISITIONS OF THE TOP OIL COMPANIES, 1978-81 23 (1982).

<sup>49</sup> For an extensive list of oil company acquisitions, see *Hart-Scott-Rodino Antitrust Procedures Amendments Act: Hearing on H.R. 586 Before the Subcomm. on Monopolies and Commercial Law of the House Comm. on the Judiciary*, 100th Cong., 1st Sess. 94 (1989) (prepared statement of Walter Adams and James W. Brock).

<sup>50</sup> Blair, *supra* note 21, at 84-85.

<sup>51</sup> "Dr. Nadim Pachachi, secretary-general of OPEC, pointed out that the Western-owned Iraq Petroleum Company had *annual* returns on investment of 56.6 percent between 1952 and 1963, that the Arabian-American Oil Company had 61 percent returns on investment annually from 1956 to 1960; the Iran Consortium, 69 percent returns from 1959 to 1964; and that the average annual rate of return on investments in the Middle East from 1948 to 1960 was 67 percent." Sherrill, *supra* note 46, at 133. See also F. COOK, *THE GREAT ENERGY SCAM* 84 (1982).

<sup>52</sup> For a detailed examination, see MULTINATIONAL OIL CORPORATIONS AND U.S. FOREIGN POLICY: REPORT OF THE SUBCOMM. ON MULTINATIONAL CORPORATIONS OF THE SENATE COMM. ON FOREIGN RELATIONS, 93RD CONG., 2ND SESS. 105, 115-117 (1975).

crude oil price increases” and providing “crucial expertise to keep national [OPEC] oil companies operating effectively”?<sup>53</sup> Most generally, did the long-established, elaborate network of joint ventures enable the majors to avoid the recurrent energy crises that wracked the nation during the decade of the 1970s? And does the very fact of the frequency of these crises not cast serious doubt on the efficacy of joint ventures between the oil giants?

Fourth, is it realistic to expect that joint ventures between the oil giants will promote technological progress in the development and commercialization of alternative fuels which, in turn, would lessen American dependence on geopolitically volatile foreign supplies? Or are they more likely to retard innovation in alternative energies in order to maximize the value of the majors' vast holdings of crude and reserves?

The question is not academic. In the 1920s, the German chemical combine IG Farben made a spectacular breakthrough that enabled it to produce synthetic gasoline from coal. But in 1929, pursuant to an infamous “marriage” agreement, Standard Oil of New Jersey (now Exxon) and Shell obtained worldwide ownership and control (except for Germany) of Farben's synthetic fuel technology. Exxon's objective was something other than the promotion of this synthetic gasoline technology at the expense of its crude oil assets. According to a Twentieth Century Fund study, the manner in which Exxon used its rights “shows clearly that its main object in acquiring them was to strengthen its control over the oil industry . . . . Standard and Shell did little to encourage widespread synthetic production of liquid fuels and lubricants from coal. They had acquired these processes primarily to protect their own vast interests in petroleum.” A former Exxon president conceded as much in an internal company document: “There is little doubt in our minds,” he wrote, “but what, if other than oil companies had dominated the situation, the management's conduct of the business would have been along lines better calculated to secure the maximum return on the capital invested.”<sup>54</sup>

Nor can this be dismissed as an artifact of ancient history. In the 1970s, in a company document recently uncovered by Canadian antitrust authorities, an official of an Exxon subsidiary summarized the firm's strategy of restraint toward alternative fuels technology: “It is therefore desirable for [Exxon] to do research work on shale and coal to know

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<sup>53</sup> Quoted in Sherrill, *supra* note 46, at 487. For recent evidence of the ongoing symbiotic relationship between the oil majors and OPEC, see Rothschild & Emerson, *Born Again Cartel*, *NEW REPUBLIC*, Nov. 5, 1984, at 20-25.

<sup>54</sup> G. STOCKING AND M. WATKINS, *CARTELS IN ACTION* 91-93, 491-95 (1946).

where the processes are headed. . . . In the meantime, it should not itself initiate commercial production, or take other action or make announcements that would motivate other companies to initiate commercial production or even development.”<sup>55</sup> Asked if his coal subsidiary would compete against his oil operations, a vice president of Conoco — which in addition to its oil operations is also one of the nation’s largest coal producers — insisted before a Congressional committee: “No, sir, under no circumstances,” adding, “We would not direct a coal subsidiary, a nuclear subsidiary, to have its price changed, modified in any way so as to either compete readily against or not compete against another form of energy. . . . We are not going to play one source of energy against the other.”<sup>56</sup> The purpose, it seems, is not promotion of alternative fuels technologies but their suppression.

Finally, have six decades of corporate partnerships in oil enhanced competition, or have they squelched it on a global basis? In their alliances abroad, for example, the majors’ joint production ventures soon led to an extensive set of cartel pacts fixing output quotas and prices, and apportioning market shares — not only in crude production, but for refined products as well.<sup>57</sup>

In their joint bidding for leases, Professor Walter Mead points out that “it is obvious that when four firms . . . each able to bid independently, combine to submit a single bid, three interested, potential bidders have been eliminated; i.e., the combination has restrained trade.” This situation, he argues, “does not differ materially from one of explicit collusion in which four firms meet in advance of a given sale and decide who among them should bid (which three should refrain from bidding) for specific leases and, instead of competing among themselves, attempt to rotate the winning bids.”<sup>58</sup>

Pipeline joint ventures are rife with anticompetitive consequences.

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<sup>55</sup> Quoted in Mintz, *Synfuel Development Delay Laid to Exxon*, Wash. Post, Aug. 11, 1981, at A2.

<sup>56</sup> Quoted in Sherrill, *supra* note 46, at 319. It is especially significant in this regard to note that the oil majors have come to dominate other energy sources, including coal, uranium, and solar energy. See *Cartel Restriction Act: Hearings Before Subcomm. on Consumer Protection and Finance of the House Comm. on Interstate and Foreign Commerce*, 96th Cong., 2nd Sess. 190-91, 250-57 (1981). These statistics show that oil companies control six of the fifteen largest coal producers, and rank as six of the ten largest holders of uranium reserves. In addition, by the early 1980s, oil firms were estimated to control possibly as much as 90% of the solar energy field. Nag, *Big Oil’s Push Into Solar Irks Independents*, Wall St. J., Dec. 8, 1980, at 23.

<sup>57</sup> Blair, *supra* note 21, at 54, 57. See generally, INTERNATIONAL PETROLEUM CARTEL REPORT, *supra* note 27.

<sup>58</sup> Mead, *The Competitive Significance of Joint Ventures*, 12 ANTITRUST BULL. 839 (1967). For additional statistical evidence confirming this conclusion, see LEONARD W. WEISS, CONCENTRATION AND PRICE 72-74 (1989).

They enable the oil giants to collectively allocate production and markets between themselves, in accordance with their ownership shares, and empower them collectively to control the industry by controlling the flows of crude oil and refined petroleum products to independent non-partners as well as among themselves.<sup>59</sup> In its landmark report, the Senate Subcommittee on Antitrust and Monopoly found:

Integrated company ownership of petroleum pipelines has had a substantial impact on the ability of nonintegrated refiners and marketers to compete with the pipeline owners in the marketplace for petroleum products. Control of crude oil pipelines has enabled these vertically integrated oil companies to gain control of crude oil production greatly exceeding their own refinery needs and has worked to prevent the formation of a domestic crude oil market. Their operation of petroleum pipelines allows them to control the distribution and flow — and consequently influence the price — of refined petroleum products.<sup>60</sup>

The Subcommittee reported that the integrated majors' collective control of pipelines enables them "to discriminate against independent producers and deprive them of a market for oil," to "discriminate against independent refiners by depriving them of access to crude," and to "determine the disposition of a large portion of refined product and limit the competitive marketing behavior of independent refiners and marketers."<sup>61</sup>

More generally, this extensive network of alliances necessitates an unparalleled degree of continuous fraternization among competitor-partners, including sharing their most intimate pricing plans, marketing objectives, and long term corporate strategies.<sup>62</sup> In the case of foreign

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<sup>59</sup> For a detailed analysis of these anticompetitive problems, see Adams & Brock, *supra* note 36.

<sup>60</sup> STAFF REPORT OF THE SUBCOMM. ON ANTITRUST AND MONOPOLY OF THE SENATE COMM. ON THE JUDICIARY, 95TH CONG., 2ND SESS., OIL COMPANY OWNERSHIP OF PIPELINES 151 (1978).

<sup>61</sup> *Id.* at 9. An internal Exxon study of the California petroleum market explains that an "important factor that contributes to control of prices by the large purchasers is the absence of common carrier pipeline facilities. This reduces the producer's flexibility in marketing his production." Quoted in Appellant Brief, *City of Long Beach v. Standard Oil Co. of Calif.*, at 18, n. 47 (9th Cir. 1988).

<sup>62</sup> M.A. Adelman, a renowned expert on the world petroleum industry, explains how the exchange of information and the coordination of production plans among the eight large firms participating in Middle East joint ventures during the decades following World War II impacted competition:

For example, each Aramco offtaker becomes aware of the nominations of the others, and knows in advance what they intend to sell. Since Aramco nominations are one-year firm and three-years tentative, each offtaker has not only a precise idea of his partners' short-run plans but at least a good idea of their long-run plans for permanent expansion. Compounding this effect is the overlapping membership in joint ventures. If the production plans of, say, Gulf are known to its partner BP, they presumably must also be known to BP's partners in IPC. Therefore the others can at least get a good idea of the net impact of the Gulf plans. Two of BP's partners in IPC are Esso and Mobil; hence the plans of Gulf and of BP must presumably be known also by SoCal and Texaco. All these firms are in the Iranian Consortium which includes practically everybody else in the Middle East. As a result, each of the Persian Gulf producing companies takes account of the action of all others. It would be an exaggeration to say that the companies

joint ventures, the Federal Trade Commission long ago found that such “a maze of joint ownership obviously provides opportunity, and even necessity, for joint action. With joint decision-making thus concentrated in the hands of a small number of persons, a common policy may be easily enforced.”<sup>63</sup> Likewise, in pipeline joint ventures, a “company that takes 30 percent of a million-barrels-a-day product pipeline . . . is notifying its competitor-partners that it intends to supply 300,000 barrels a day for the next 30 or 40 years in the pipeline delivery territory. The partners, in turn, are revealing their long-range future plans.”<sup>64</sup> In pricing also, the oil giants systematically exchange information and plans among themselves. They regularly inform one another of their pricing intentions, their reasons for planned price changes, and their price forecasts.<sup>65</sup> Even the Wall Street Journal expresses astonishment at the evidence of “an industry so clubby and inbred that executives considered it bad manners to compete too aggressively with each other in price.”<sup>66</sup>

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confer on their production plans. At least among the five American companies, antitrust prudence would not permit that. But each can be assured that nothing is contemplated to threaten an excess of supply and a threat to the price. Each can hold back on output in the almost certain knowledge that all others are doing the same.

M. ADELMAN, *THE WORLD PETROLEUM MARKET* 88 (1972).

<sup>63</sup> INTERNATIONAL CARTEL REPORT, *supra* note 27, at 29.

<sup>64</sup> Measday, *The Petroleum Industry*, in *THE STRUCTURE OF AMERICAN INDUSTRY* 150 (W. Adams ed.) (5th ed. 1977).

<sup>65</sup> Brief of the Appellants, Appeal from Summary Judgments, *City of Long Beach v. Standard Oil of Calif.*, at 24 (9th Cir. Feb. 1988).

<sup>66</sup> Jackson & Pasztor, *Court Records Show Big Oil Companies Exchanged Price Data*, Wall St. J., Dec. 17, 1984, at 1, col. 6.

The Ninth Circuit Court’s recent opinion, reinstating Sherman Act charges against virtually all of the major petroleum companies, is replete with evidence which the court itself has found to be plausibly suggestive of anticompetitive oligopolistic parallelism. See *In re Coordinated Pretrial Proceedings in Petroleum Products Antitrust Litigation*, No. 86-6776 (9th Cir., June 22, 1990).

For example, a Chevron official provided the following explanation of his firm’s extraordinary efforts to alert other oil companies to its price changes:

Q. . . . Was there any business reason why the temporary dealer assistance that was being granted in the trade zone . . . should have been published or made available to anybody other than the dealers?

A. Yes, I think a practical business reason. If we had raised our prices to our dealers, and our dealers had raised it on the street generally, I think particularly our dealers . . . may have been as much as one, two, three, four cents — they were all over the lot. If a competitor saw this, he might wonder, “Is this a dealer movement, or has [Chevron] raised their prices to cause this reaction in the marketplace?”

Q. . . . The reason you are giving, then, is that you wanted the competition to know what the price move was.

A. Exactly.

*Id.* at 6491-92.

Similarly, the court found plausible evidence suggesting that the major companies jointly acted to artificially reduce their rate of capacity growth, in order to sustain higher price levels and to handicap less-disciplined independents:

The evidence supports the conclusions that (1) in the early 1970s several of the appellees began taking steps to reduce excess capacity; (2) they did so with the intent and effect of reducing the strength of the independent sector of the market; (3) during this period the appellees exchanged



Joint ventures in oil may have proliferated to the point where they are no longer supplements to the competitive market, but a complete replacement for it. Alliances may supercede individual corporate autonomy, where "collaboration" becomes collusion, and where "cooperation" is tantamount to collective control. If so, what mechanism is there to insure that the public interest will be vouchsafed, or that the partners' decisionmaking will promote the nation's energy interests?

### III. THE AUTOMOBILE INDUSTRY

The automobile industry, a long-entrenched American oligopoly, has responded to the first serious competition in four decades by spinning an extensive web of joint ventures, encompassing virtually all of its major rivals abroad.

#### A. The Postwar Oligopoly

The automobile industry has been one of the most concentrated of all major U.S. industries. In the post-World War II era, the Big Three — General Motors, Ford and Chrysler — generally accounted for 90% or more of U.S. auto production; until recently, they controlled an approximately equivalent share of U.S. auto sales.<sup>67</sup>

The industry exhibited all the defects of oligopolistic mutual interdependence and competitive forbearance. Prices were uniformly rigid except in an upward direction, with genuine price competition virtually nonexistent. In its massive 1958 investigation of the industry, the Senate Subcommittee on Antitrust and Monopoly found "substantial identity of prices among the Big Three at each price level," the "exercise by GM of leadership in prices" and, generally, an established pattern in which price competition had been "deemphasized" in favor of noncompetitive price conformity.<sup>68</sup>

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information concerning supply forecasts and production levels, and (4) the shortage of refining capacity, as well as the foreign activities of several of the appellees (discussed below), resulted in supply shortages and upward price pressure.

*Id.* at 6519.

As alluded to in the preceding conclusions, the court also found plausible evidence that the major oil companies, acting through their joint production Middle East ventures, conspired to resist Iranian and Saudi Arabian efforts to increase crude oil production, and to thereby further artificially hold down market supplies. *Id.* at 6522.

<sup>67</sup> See Adams & Brock, *The Automobile Industry*, in *THE STRUCTURE OF AMERICAN INDUSTRY* 104-106 (W. Adams ed.) (8th ed. 1989).

<sup>68</sup> *Administered Prices, Automobiles: Report of the Subcomm. on Antitrust and Monopoly of the Senate Comm. on the Judiciary*, 85th Cong., 2nd Sess. 2, 177 (1958). These findings were reconfirmed over fifteen years later. See Boyle & Hogarty, *Pricing Behavior in the American Automobile Industry*, 24 *J. INDUSTRIAL ECON.* 81 (1975).

Production inefficiency flourished in this noncompetitive milieu. Legendary GM chairman Alfred Sloan long ago lamented the fact that “[i]n practically all our activities we seem to suffer from the inertia resulting from our great size. . . . I can’t help but feel that General Motors has missed a lot by reason of this inertia.”<sup>69</sup> GM president Elliott M. Estes later confided that “Chevrolet is such a big monster that you twist its tail and nothing happens at the other end for months and months. It is so gigantic that there isn’t any way to really run it. You just sort of try to keep track of it.”<sup>70</sup> As a result of antediluvian materials procurement practices, bloated overhead expenses, and general mismanagement of production processes,<sup>71</sup> the American auto oligopoly, by the early-1980s, suffered a per-car production cost disadvantage of \$1,700 vis-a-vis Japanese auto firms.<sup>72</sup>

Technological progress languished also. Summarizing the industry’s post-war performance, David Halberstam writes:

Since competition within the [U.S.] auto industry was mild, there was no impulse to innovate. . . . Why bother, after all? In America’s rush to become a middle-class society, there was an almost insatiable demand for cars. . . . It was impossible not to make money. . . . So there was little stress on improving the cars. From 1949, when the automatic transmission was introduced, to the late seventies, the cars remained remarkably the same. What innovation there was came almost reluctantly.<sup>73</sup>

In this era, veteran industry expert Brock Yates points out, foreign producers “continued to move ahead with fuel injection, disc brakes, rack and pinion steering, radial tires, quartz headlights, stalk-mounted windshield wiper and dimmer controls, ergonomically adjustable bucket seats, five-speed manual transmissions, high-efficiency overhead camshaft engines, independently sprung suspensions, advanced shock absorbers, and strict crash-worthiness standards.”<sup>74</sup>

Perhaps H. Ross Perot, founder of the EDS Corporation and erstwhile director of General Motors, has best summarized the industry’s noncompetitive performance during the post-World War II era:

General Motors and the entire American automobile industry had a big

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<sup>69</sup> Quoted in U.S. Congress, *Temporary National Economic Committee, Investigation of Concentration of Economic Power*, monograph no. 13, 76th Cong., 3rd Sess. 130-31 (1941).

<sup>70</sup> Quoted in J. WRIGHT, *ON A CLEAR DAY YOU CAN SEE GENERAL MOTORS* 100 (1979).

<sup>71</sup> See Adams & Brock, *The Automobile Industry*, in *THE STRUCTURE OF AMERICAN INDUSTRY* 146-49 (7th ed. 1986).

<sup>72</sup> U.S. Department of Transportation, *THE U.S. AUTOMOBILE INDUSTRY: 1981* 15 (1982).

<sup>73</sup> D. HALBERSTAM, *THE RECKONING* 244-45 (1986). For example, when reporters broached the then novel notion of front-wheel drive with Lee Iacocca in the early 1970s, he retorted: “I say, give ‘em leather. They can smell it.” Quoted in *id.* at 385.

<sup>74</sup> YATES, *THE DECLINE AND FALL OF THE AMERICAN AUTOMOBILE INDUSTRY* 149 (1984). See generally Adams & Brock, *supra* note 67.

respite from competition. . . . [I]t got so bad that [U.S. auto firms] tried to get divisions to compete with one another — Chevrolet compete with Pontiac, Oldsmobile with Buick, and so on. . . . I say ‘Fellows, that’s intramural sports. . . . You don’t even tackle there, you just touch the guy. . . . You don’t even play with pads. . . .’ First board meeting . . . I gave ‘em my immigrant’s view of General Motors. And I said, ‘You don’t understand competition. . . .’<sup>75</sup>

### B. Competitive Interlude

In the 1970s, the unthinkable happened: Competition swept through the industry, and eroded this noncompetitive environment. Spearheaded by the Japanese, foreign firms offered American consumers innovative, high quality, fuel efficient models at attractive prices.

The impact on the Big Three was dramatic: Foreign firms’ share of the American market tripled, climbing from 6% in the mid-1950s to 18% in 1975, and continuing to rise thereafter, reaching nearly 30% by 1982.<sup>76</sup> Inundated with a flood of superior foreign automobiles (and aggravated by a severe economic recession), General Motors and Ford collectively lost \$5 billion in the 1980-1981 period,<sup>77</sup> while Chrysler was rescued from bankruptcy only by virtue of a \$1.5 billion government bailout.<sup>78</sup>

In 1981, in response to urgent pleas from the domestic industry,<sup>79</sup> the United States government imposed “voluntary” quotas to restrict Japanese imports. In spite of this protection, however, the domestic oligopoly was compelled to invest billions to begin to modernize its antiquated plants and production facilities. It was forced to boost its productivity by as much as 30 to 40%.<sup>80</sup> It was compelled to slash billions of dollars in costs.<sup>81</sup> And it was finally forced to begin to substantially — some say “tremendously” — improve the quality of its products.<sup>82</sup>

### C. The Advent of Joint Ventures

The ostensible purpose of the “voluntary” quotas was to give the

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<sup>75</sup> Interview, Washington Post, July 7, 1985.

<sup>76</sup> *Automotive News*, 1990 MARKET DATA BOOK 40 (1990).

<sup>77</sup> GENERAL MOTORS, 1988 ANNUAL REPORT 48 (1989); FORD MOTOR CO., 1984 ANNUAL REPORT 40 (1985).

<sup>78</sup> See W. ADAMS & J. BROCK, *THE BIGNESS COMPLEX* 297-303 (1986).

<sup>79</sup> See Adams & Brock, *supra* note 67, at 122-23.

<sup>80</sup> HARBOUR & ASSOC., *THE HARBOUR REPORT: A DECADE LATER* 104-137 (1990).

<sup>81</sup> See e.g., FORD MOTOR CO., 1984 ANNUAL REPORT at 19 (indicating that the firm had cut its operating costs by \$4.5 billion between 1979 and 1984).

<sup>82</sup> HARBOUR REPORT, *supra* note 80, at 143-45.

Big Three a three year period of "breathing space" which would enable them to modernize their facilities and put them in a position to compete more effectively against foreign firms in the United States market. In 1984, the "voluntary" quotas were renewed, affording the Big Three three additional years of "breathing space." Soon it became apparent, however, that the Big Three used the prolonged period of protection, not to compete but to forge a complex maze of transnational joint ventures with virtually all of their major foreign rivals. The magnitude and breadth of these global alliances is detailed in Figure 1.

General Motors, the world's largest automobile firm, joined with Toyota in 1983 — the world's third largest vehicle producer and the largest importer of cars into the United States market — to jointly produce automobiles in California.<sup>83</sup> Subsequently, GM and Toyota agreed to merge their previously separate production facilities in Australia, creating that nation's largest automotive manufacturing operation in the process.<sup>84</sup> GM also acquired a 40% ownership stake in the Japanese Isuzu firm, and imported Spectrum models produced by Isuzu.<sup>85</sup> GM now holds a substantial financial interest in Japan's Suzuki, imports Sprint/GEO automobiles produced by Suzuki<sup>86</sup> and, in 1986, announced a joint venture with Suzuki to produce automobiles in Canada. GM also owns 50% of Daewoo, a South Korean automaker, and since 1984 has jointly produced the Pontiac LeMans with Suzuki and imported it into the United States market.<sup>87</sup> In 1986, GM purchased a 60% stake in the British Lotus firm; in 1989, it disclosed the acquisition of half ownership in Sweden's SAAB automotive manufacturer.<sup>88</sup>

Similarly, Ford Motor Company, the world's second largest automotive firm, acquired a 25% ownership stake in Japan's Mazda; it entered into purchase agreements with Mazda for a variety of automotive parts and components;<sup>89</sup> it jointly constructed an automobile factory in Mexico with Mazda;<sup>90</sup> and it now purchases approximately half the cars produced at Mazda's Flat Rock, Michigan assembly plant.<sup>91</sup> Ford also

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<sup>83</sup> For rankings, see *Automotive News*, 1990 MARKET DATA BOOK 6, 27 (1990). On the GM-Toyota joint venture, see Adams & Brock, *supra* note 67, at 106.

<sup>84</sup> Davis, *GM and Toyota to Merge Subsidiaries in Australia*, AUTO. NEWS, Dec. 14, 1987, at 2.

<sup>85</sup> Flint, *Make Love, Not War*, FORBES, Oct. 2, 1989, at 48; GENERAL MOTORS CORP., 1988 ANNUAL REPORT 4 (1989).

<sup>86</sup> *Id.*

<sup>87</sup> *Id.*

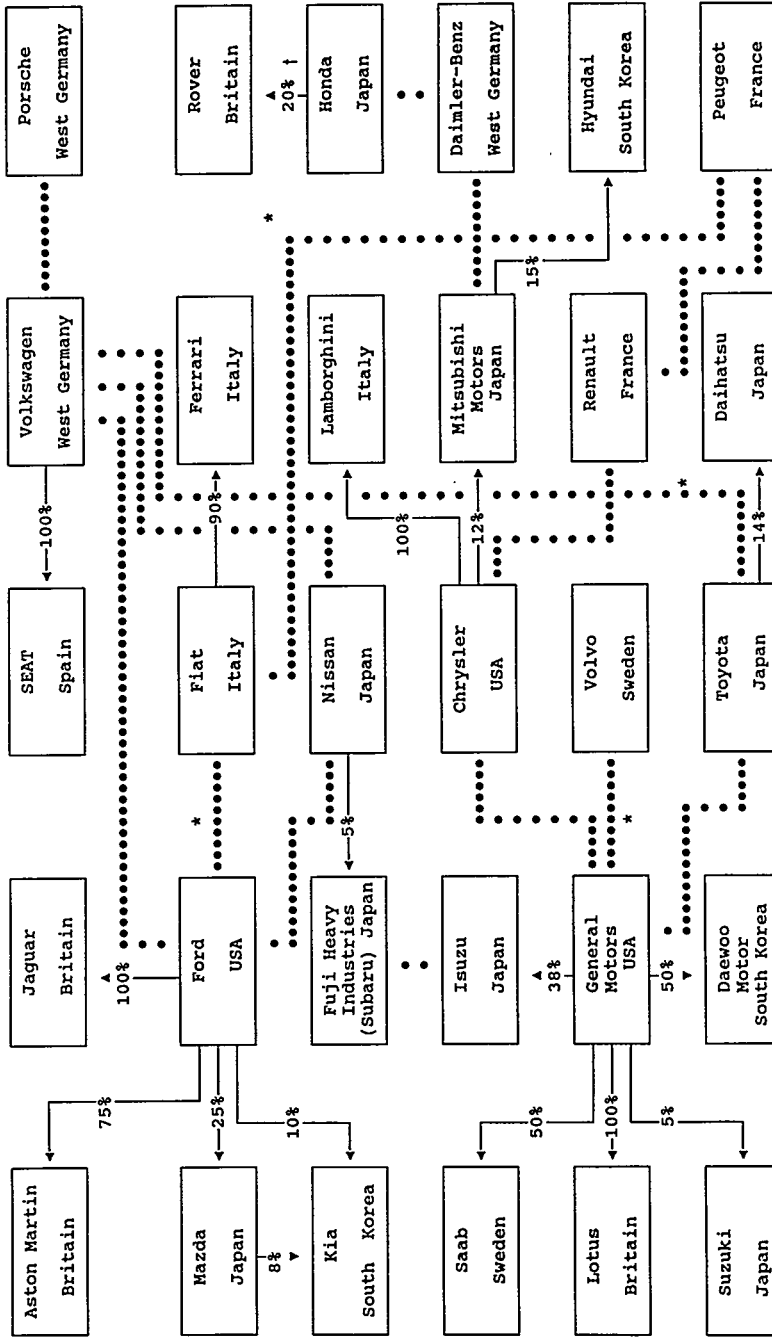
<sup>88</sup> Judge, *G.M. to Buy Half of Saab Car Unit*, N.Y. Times, Dec. 16, 1989, at 19.

<sup>89</sup> *Industrial Policy: Hearings Before the Subcomm. on Economic Stabilization of the House Comm. on Banking, Finance and Urban Affairs*, 98th Cong., 1st Sess. Part 3, at 164 (1983).

<sup>90</sup> Holusha, *Detroit's New Japan Strategy*, N.Y. Times, Apr. 1, 1985, at D4, col. 4.

<sup>91</sup> Adams & Brock, *supra* note 67, at 105-107.

FIGURE 1—AUTOMOBILE JOINT VENTURES



Key= \* commercial vehicles; † Rover also owns 20% of Honda's British manufacturing operations; ←—00%— Equity stake; ..... Joint venture/manufacturing agreement

Source: *The Economist*, Feb. 24, 1990, p. 74.

agreed to produce automobiles which Mazda plans to market under its own nameplate,<sup>92</sup> and the two firms have disclosed exploratory discussions involving their potential joint production of automobiles in West Germany.<sup>93</sup> In addition, Ford and Mazda collectively entered into joint production and purchase agreements with the emerging South Korean automotive firm Kia (a company in which Mazda holds a 25% equity interest). Ford also announced plans to import mini-cars manufactured by Kia into the United States.<sup>94</sup> At the same time, Ford and Volkswagen have combined their Latin American production operations into a joint venture which, standing alone, constitutes the world's 11th largest automobile manufacturing concern;<sup>95</sup> the two firms are also engaged in discussions aimed at co-production of mini-vans in Europe.<sup>96</sup> Ford and Nissan have disclosed cooperative ventures to jointly produce mini-vans<sup>97</sup> and four-wheel-drive sport vehicles.<sup>98</sup>

Chrysler, too, has forged an elaborate network of alliances with its foreign rivals. It holds a 22% ownership stake in Japan's Mitsubishi, and the two firms co-produce automobiles in their jointly owned Diamond-Star Motors facility, located in Bloomington, Illinois.<sup>99</sup> Mitsubishi, in turn, has taken a 15% equity interest in South Korea's Hyundai Motor Company.<sup>100</sup> Chrysler has entered into a parts-procurement venture with the South Korean Samsung Group; Samsung has disclosed plans to eventually produce complete automobiles for Chrysler.<sup>101</sup> Chrysler has undertaken to produce automobiles with Maserati,<sup>102</sup> and has engine purchase agreements with Volkswagen and France's Peugeot.<sup>103</sup> In addition, Chrysler has joined with Japan's Honda to dis-

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<sup>92</sup> Levin, *Ford Plant to Build New Vehicle for Mazda*, N.Y. Times, Feb. 9, 1990 at C1.

<sup>93</sup> Johnson, *Ford Explores European Projects with Mazda, VW*, AUTOMOTIVE NEWS, June 25, 1990, at 54.

<sup>94</sup> *Ford Korean Import is Seen*, N.Y. Times, Aug. 19, 1985, at D4, col. 6.

<sup>95</sup> Ryser, *Ford and VW: A Marriage of Convenience*, BUS. WK., Dec. 8, 1986, at 53.

<sup>96</sup> *Ford Explores European Projects*, *supra* note 93.

<sup>97</sup> Holusha, *Ford Will Join Nissan to Build a Mini-Van*, N.Y. Times, Sept. 13, 1988, at 33.

<sup>98</sup> Johnson, *Ford and Nissan Will Build Sport-Utility in Spain*, AUTOMOTIVE NEWS, July 24, 1989, at 6.

<sup>99</sup> ADAMS & BROCK, *supra* note 67, at 106.

<sup>100</sup> Kanabayashi, *Japan is Wooing Auto Concerns in South Korea*, Wall St. J., July 17, 1985, at 34, col. 1. Mitsubishi has subsequently disclosed a joint production venture with Volvo, and Volvo and Renault have exchanged ownership stakes in each other. Kapstein, *Mitsubishi is taking a back road into Europe*, Bus. Wk., Nov. 19, 1990 at 64.

<sup>101</sup> *Industrial Policy Hearings*, *supra* note 89, at 164; *Going Global: Despite Pleas for Curbs on Imports, U.S. Auto Makers Rapidly Expand Foreign Ties*, Wall St. J., Oct. 28, 1985, at 15, col. 2.

<sup>102</sup> *Chrysler Pact with Maserati*, N.Y. Times, Jan. 6, 1986, at D9, col. 2.

<sup>103</sup> *Industrial Policy Hearings*, *supra* note 89, at 164; U.S. INTERNATIONAL TRADE COMMISSION, PUB. NO. 1110, CERTAIN MOTOR VEHICLES AND CERTAIN CHASSIS AND BODIES THEREFOR A-20 (Inv. No. TA-201-44) (Dec. 1980).

tribute and market jeeps in Japan — this following Chrysler's 1987 acquisition of AMC-Jeep.<sup>104</sup> As Chrysler describes its network of alliances, Mitsubishi

. . . provides us with vehicles and sells us 400,000 or so V-6 engines per year. Diamond-Star Motors, our joint venture assembly plant with Mitsubishi, produces Lasers and Talons. From Hyundai, Korea's largest automobile company, we plan to purchase a mid-size sedan to sell through our Eagle dealers starting in 1991. Renault of France supplies V-6 engines for our Eagle Premier and Dodge Monaco. We recently initiated a joint venture with Renault to build a small utility vehicle . . . for production in Spain and sale in Europe jointly by Chrysler and Renault. . . . We will soon be distributing the Alfa Romeo 164 in the United States through a joint venture with Fiat.<sup>105</sup>

Finally, in an unprecedented development, General Motors and Chrysler in 1990 announced plans to jointly produce automotive parts, thus establishing the first manufacturing joint venture directly linking Big Three firms.<sup>106</sup>

Considered *en masse*, the reach and density of these automotive partnerships are staggering. "What's the connection between Porsche and Suzuki?" asks the London Economist. "Well, Volkswagen's Audi division assembles some Porsches; VW has a Brazilian carmaking joint venture with Ford; Ford is working with Nissan to develop a new American minivan; Nissan owns 5% of Fuji Heavy Industries (which makes Subaru cars); Subaru has a joint-venture car plant in America with Isuzu; General Motors owns 38% of Isuzu — and GM owns 5% of Suzuki. Phew."<sup>107</sup> Or, as Congressman Richard Durbin puts it, "It used to be 'us' vs. 'them'. . . . Now . . . [w]e don't know who is 'us' and who is 'them'."<sup>108</sup>

#### D. Public Policy Issues

This proliferation of joint ventures between the domestic auto oligopoly and its major foreign rivals raises a number of troubling questions.

First, the crux of the industry's deplorable post-war performance seems ultimately rooted in its oligopolistic giantism and bureaucratic

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<sup>104</sup> *Chrysler Pact with Honda to Sell Jeeps*, N.Y. Times, June 16, 1990, at 19.

<sup>105</sup> CHRYSLER CORP., 1989 ANNUAL REPORT 10-11 (1990).

<sup>106</sup> See Stertz, *GM, Chrysler Sign an Agreement to Make Key Automotive Parts Jointly in the U.S.*, Wall St. J., Oct. 6, 1989, at A3; and Levin, *G.M. and Chrysler Plan Joint Venture*, N.Y. Times, Feb. 7, 1990, at C5.

<sup>107</sup> *Spot the Difference*, ECONOMIST, Feb. 24, 1990, at 74.

<sup>108</sup> Quoted in Shribman & Pine, *Auto-Industry Lobbying to Retain Japan Quotas Hasn't Been as Intense, or Successful, as in 1984*, Wall St. J., Feb. 25, 1985, at 54, col. 1.

bloat<sup>109</sup> — afflictions that joint ventures are congenitally incapable of remedying. Observing that General Motors' employment exceeds that of the three largest Japanese auto firms *combined*, the Economist concludes that "GM's centralised, bureaucratic ways make it too inflexible in a market in which the Japanese can produce new models every three years and can re-program their plants in a jiffy to respond to shifting demand. GM's committee-designed models are out of date years before they reach the streets."<sup>110</sup> For its part, Fortune points to "GM's mammoth bureaucracy — layer upon layer of managers, departments, and committees — [which has] to approve, re-approve, and cross-approve the car divisions' every move" as playing an important role in the firm's continuously deteriorating market and financial performance.<sup>111</sup> Excessive vertical size and integration in parts and components production exacerbate these diseconomies of undue size, further inflating costs and undermining efficiency.<sup>112</sup> Most generally, informed experts conclude that the "basic question nagging this biggest, most diverse, and most integrated of car companies is whether it is just too big to compete in today's fast-changing car market."<sup>113</sup>

As an increasing number of analysts now recognize, no amount of inter-corporate alliances seems capable of curing this endemic malady. In its recent analysis of GM's ongoing woes, for example, the conservative Economist prescribes that to "save his firm, Mr. Stempel must break it up. He should sell off EDS and Hughes Aerospace, the costly high-tech distractions which have contributed little to cars. He should dismember GM's car division into two or three independent companies, freeing them to compete with one another and to handle their own designs."<sup>114</sup>

Second, by agreeing to import cars and components produced abroad by their foreign partners, are not the Big Three surrendering one segment of the market after another, effectively turning each over to the foreign producers, and consequently abandoning ever-larger shares of the overall market? If so, in what conceivable way can this promote United States competitiveness? As Forbes warns: "One clear danger is that American automakers will let themselves become overly dependent on

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<sup>109</sup> See generally Adams and Brock, *supra* note 78, at 38-41, 60-62.

<sup>110</sup> *Detroit Under Siege*, *ECONOMIST*, Apr. 14, 1990, at 13.

<sup>111</sup> Fisher, *GM Is Tougher Than You Think*, *FORTUNE*, Nov. 10, 1986, at 56, 57.

<sup>112</sup> See Risen, *Tight Network of Suppliers Provides Key Support for Japan's Auto Makers*, *L.A. Times*, Jan. 17, 1990, at D1.

<sup>113</sup> Hampton & Norman, *General Motors: What Went Wrong*, *BUS. WK.*, Mar. 16, 1987, at 102, 110.

<sup>114</sup> *Supra* note 110, at 13.



their foreign partners and abandon certain fields of technological know-how. GM doesn't build its own small car in the U.S., Chrysler hasn't done any serious reworking of its small cars for over a decade, and Ford's next small car will be a Mazda derivative."<sup>115</sup>

Third, are joint ventures between the Big Three and their largest foreign rivals the *only* path by which they can learn how to manufacture cars efficiently? Is the joint venture between General Motors and Toyota — the world's largest and third largest automotive firms — the only way for GM to learn efficient production methods? Must the Big Three simultaneously ally themselves with the Big Four in Japan, with the Big Five in Europe, and with the largest emerging Korean producers? Or are there not more competitive alternatives available, such as "toe-hold" joint ventures with smaller producers? More generally, did the government's approval of the GM-Toyota joint production venture in 1983 not serve to encourage a proliferation of similar global partnership pacts, binding together the remaining major firms in the world industry?

Finally, in joining with their foreign rivals on such a prodigious scale, are not these automotive firms subverting foreign competition — the only real source of competition in the industry in forty years — by converting formerly independent rivals into partners bound to one another at almost every turn? Necessitating a sharing of information and plans, these alliances inevitably undermine the product and pricing uncertainty that fosters effective competition. By involving a plethora of product exchanges between partners, they amount to a gradual global allocation of the market among ostensible competitors. At a minimum, these transnational alliances resoundingly refute the proposition that "global competition" is an automatic corrective for anticompetitive tendencies generated by interfirm partnerships.

These concerns are not farfetched. Students of the industry recall that beginning in the 1950s, as automotive smog pollution worsened and national concern about the problem heightened, the Big Three entered into a joint "research" venture designed not to promote competition in commercializing pollution technology, but to suppress it. In an antitrust suit filed in 1969 (which the industry did not contest), the Justice Department found that behind the guise of a "joint venture," the auto giants "conspired not to compete in research, development, manufacture, and installation of [pollution] control devices, and collectively did all in their power to delay such research, development, manufacturing, and installation."<sup>116</sup> Specifically, it found that they ignored promising inventions,

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<sup>115</sup> Flint, *Make Love, Not War*, FORBES, Oct. 2, 1989, at 46.

<sup>116</sup> Smog Control Antitrust Case, 117 CONG. REC. 15,626 (1971).

refused to purchase pollution controls developed by others, delayed installing smog controls, and at times disciplined their joint venture partners whose loyalty to the team flagged.<sup>117</sup> “Since the industry was fortified from the beginning of the program with the agreement among its members not to take competitive advantage over each other,” the Justice Department concluded, “all auto manufacturers were able through the years to stall, delay, impede and retard research, development, production and installation of motor vehicle pollution control equipment.”<sup>118</sup> This is hardly a stirring testimonial to the prowess of “joint ventures” in advancing the nation’s technological frontiers.<sup>119</sup>

In both its scope and scale, a decade of joint ventures in the automotive industry has secured an interlocking system of mutually acceptable accords, and may well have forged the groundwork for cartelizing the world automobile industry.<sup>120</sup>

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<sup>117</sup> *Id.* at 15,627-37.

<sup>118</sup> *Id.* at 15,633.

<sup>119</sup> In 1973, the prestigious National Academy of Sciences reprimanded the joint “research” venture’s effects in the following terms: “It is unfortunate that the automobile industry did not seriously undertake such a [pollution control] program on its own volition until it was subjected to governmental pressure. A relatively modest investment, over the past decade, in developmental programs related to emission control could have precluded the crisis that now prevails in the industry and the nation.” NATIONAL ACADEMY OF SCIENCES, REPORT BY THE SENATE COMMITTEE ON MOTOR VEHICLE EMISSIONS, reprinted in 119 CONG. REC. 5,831, at 5,849 (1973).

<sup>120</sup> It is significant to add that developments in the United States steel industry, and their anticompetitive implications, mirror those just examined in the automobile industry.

Over the two decades following World War II, the United States steel industry’s oligopolistic structure and conduct generated increasingly noncompetitive performance results — including steady, substantial price-wage-cost escalation, and technological obsolescence. As a result of this noncompetitive performance, the industry became increasingly vulnerable to foreign competition, with the share of imports in the American market rising nearly six-fold, from less than 3% in 1959, to 17% by 1968. Adams, *The Steel Industry*, in THE STRUCTURE OF AMERICAN INDUSTRY 85 (W. Adams ed.) (4th ed. 1971).

Confronted with the specter of competition, the oligopoly and the Steelworkers joined to lobby government for protection, and succeeded in obtaining a succession of increasingly restrictive government restraints, quotas, “voluntary marketing agreements,” market allocation agreements, and minimum “trigger” prices — all ostensibly designed to provide the industry with the “breathing space” needed in order to enable it to regain the competitiveness it had forfeited over the preceding decades. See generally W. ADAMS AND J. BROCK, THE BIGNESS COMPLEX 263-70 (1987); Adams & Brock, *Tacit Vertical Collusion and the Labor-Industrial Complex*, 62 NEB. L. REV. 621, 679-94 (1983); and Adams, *Import Restraints and Industrial Performance: The Dilemma of Protectionism*, 1 MICH. Y.B. OF INT’L LEGAL STUD. 34-52 (1979).

As in autos, however, Big Steel in the 1980s utilized its “breathing space” of government protection to join with, rather than fight, its major foreign rivals — particularly those from Japan. As the following table shows, by the late-1980s, this increasingly expansive web of alliances and cross-ownership agreements had come to link National Steel with Japan’s Nippon Kokan steel firm; Inland Steel with Nippon Steel; LTV with Sumitomo Metals; Wheeling-Pittsburgh and Japan’s Nisshin Steel; Armco with Japan’s Itoh and Kawasaki steel firms; and United States Steel Corporation (now USX) with Japan’s Kobe Steel.

IV. THE AIRLINE INDUSTRY

In the wake of airline deregulation at home, and European efforts to promote greater competition abroad, air transportation has joined the race to joint ventures. In the late 1980s, inter-carrier alliances have become the industry's *modus operandi*.

A. United States Deregulation and Consolidation

Confronted with an accumulating body of persuasive evidence, Congress and the Carter administration opted in 1978 to abandon forty years of government control of domestic airlines. While the government retained responsibility for air safety, public policy would rely on the competitive market to determine how many carriers would fly what routes, at what fares, and at what level of service.<sup>121</sup>

The initial results were promising: scores of new carriers entered the field; the number of carriers tripled; existing carriers — particularly regional carriers — expanded beyond their hitherto restricted territories and routes; airfares dropped, sparking significantly higher rates of

| U.S.-Japanese<br>Joint Ventures in Steel |                         |                                |
|--|-------------------------|--------------------------------|
| <u>U.S. Firm</u>                         | <u>Japanese Partner</u> | <u>Operations<br/>Involved</u> |
| Inland                                   | Nippon Steel            | Cold-rolling<br>Galvanizing    |
| National<br>CVRD                         | NKK<br>Kawasaki Steel   | Integrated<br>Rolling          |
| Armco                                    | Kawasaki Steel          | Integrated                     |
| LTV                                      | Sumitomo                | Electro-<br>galvanizing        |
| Wheeling-Pitt                            | Nisshin Steel           | Coating Line<br>Integrated     |
| Nucor                                    | Yamato Kogyo            | Structurals                    |
| USX                                      | Kobe Steel              | Structurals                    |

Source: U.S. Int'l Trade Comm'n, Pub. No. 2298, Monthly Report on the Status of the Steel Industry vi-v (July 1990); Wartzman *USX Sets U.S. Steel Venture With Kobe*, Wall St. J., Feb. 15, 1989, at B8, col. 1.

In steel, as in autos, the burgeoning scope and scale of corporate alliances raises the question whether in their actual operation they will serve to promote, or to contain, competition among the partner-rivals. At a minimum, the magnitude of the joint venture movement in steel (as in autos) casts considerable doubt on the efficacy of "global competition" among firms intricately conjoined with one another in an interlocking series of transnational partnership pacts. More generally, for students of the industry, it is eerily reminiscent of the global steel cartels forged during the 1920s and 1930s. See E. HEXNER, *THE INTERNATIONAL STEEL CARTEL* (1943); Stocking & Watkins, *supra* note 54, at 171-215; and FEDERAL TRADE COMM'N, *REPORT ON INTERNATIONAL STEEL CARTELS* (1948).

<sup>121</sup> Airline Deregulation Act of 1978, Pub. L. No. 95-504, 92 Stat. 1705 (codified as amended at 49 U.S.C. app. sec. 1301 (Supp. 1987)). For a detailed examination of events and the evidence culminating in the deregulation of airlines, see W. ADAMS AND J. BROCK, *supra* note 78, at 219-228.

growth in air travel; productivity rose; and consumer choices multiplied.<sup>122</sup>

Soon thereafter, however, the Reagan administration abdicated its antitrust responsibilities, triggering a voracious merger and acquisition movement in the industry. Over the brief 1985-1987 period, the administration sanctioned some 26 airline combinations, involving upwards of 70% of the industry's total capacity.<sup>123</sup> Prominent among these were Northwest's acquisition of Republic; US Air's acquisition of Piedmont and Pacific Southwestern Airlines; TWA's acquisition of Ozark; Delta's acquisition of Western Airlines; American Airlines' acquisition of Air-Cal; and Texas Air's acquisition of Continental, Eastern, and People Express (after People Express had acquired Frontier Airlines).<sup>124</sup>

Approximately 50 airline mergers and acquisitions occurred between 1979 and 1988, producing dramatic increases in industry concentration.<sup>125</sup> By 1988, fifteen independent airlines operating at the beginning of 1986 had been consolidated into six large carriers.<sup>126</sup> In 1978, the five largest carriers accounted for 69% of the industry; by 1985, their collective market share had fallen to 57% in the initial aftermath of deregulation; by 1988, however, their share had risen to 74%.<sup>127</sup> By 1989, the share of the eight largest carriers reached 92%.<sup>128</sup>

Monopoly "fortress" hubs were erected in major cities across the country.<sup>129</sup> At 22 of the nation's major airports, a single carrier now

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<sup>122</sup> *Id.* at 229. See also Moore, *U.S. Airline Deregulation: Its Effects on Passengers, Capital, and Labor*, 29 J. LAW & ECON. 1 (1986), analyzing the industry's performance over the period 1976-1983.

<sup>123</sup> W. ADAMS AND J. BROCK, *DANGEROUS PURSUITS: MERGERS AND ACQUISITIONS IN THE AGE OF WALL STREET* 104 (1989).

<sup>124</sup> *Id.* 102-104.

<sup>125</sup> P.S. DEMPSEY, *FLYING BLIND: THE FAILURE OF AIRLINE DEREGULATION* 12 (Economic Policy Institute, Mar. 1989).

<sup>126</sup> *Id.* at 12-13.

<sup>127</sup> *Airline Concentration at Hub Airports, 1988: Hearing Before the Senate Comm. on Commerce, Science, and Transportation*, 100th Cong., 2d Sess. 46 (1989).

<sup>128</sup> Dempsey, *supra* note 125, at 13.

<sup>129</sup> That monopoly has subverted competition is obvious to the financial community in its assessments of airlines:

USAir controls 33 of the 42 gates at Pittsburgh and thus has insulated itself from large-scale competition. . . . The many Pittsburgh monopolies have allowed USAir to react to low-fare competition elsewhere on the system by increasing fares in Pittsburgh. . . . We estimate that more than 50 percent of these USAir customers are traveling on monopoly routes. This exclusive right to provide air transportation to 2.25 million passengers per year should be included in any evaluation of the assets of USAir. The merger of Northwest and Republic airlines has created a similar monopoly in Minneapolis. . . . Similar concentrations exist for TWA at St. Louis. . . .

OPPENHEIMER & CO., *MONTHLY PORTFOLIO STRATEGY*, Feb. 18, 1987, quoted in *Airline Deregulation and the Effect it has had on Airline Transportation in the United States, 1987: Hearing Before the Subcomm. on Antitrust, Monopolies and Business Rights of the Senate Comm. on the Judiciary*,

controls over half of the air traffic; at 9 of them, one carrier controls more than 75%.<sup>130</sup> Examples include Cincinnati, where the largest carrier controls an estimated 68% of air travel; St. Louis, 82%; Minneapolis, 82%; Pittsburgh, 83%; Salt Lake City, 75%; and Detroit, 65%.<sup>131</sup>

Predictably, this merger-induced concentration has eroded competition in the industry. A pronounced, noncompetitive pattern of price leadership, price following and price matching has evolved, boosting air fares substantially, particularly at hubs dominated by single carriers.<sup>132</sup> Combined with declining service quality, the industry's post-consolidation performance has created a situation that Senator John Danforth (R.-Mo.) describes as "intolerable" — so much so that a growing chorus is now demanding a re-regulation of the field.<sup>133</sup>

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100th Cong., 1st Sess. 88-89 (1987) (statement of Alfred E. Kahn, Prof. of Political Economy, Cornell University).

The "beauty" of the monopoly hub strategy, as confidentially articulated by an executive vice president of one airline, is that "it enables us to keep control of prices within our niche territory, thus insulating a significant portion of our traffic from the devastating effects of unbridled price competition." *Quoted in* Borenstein, *Hubs and High Fares: Dominance and Market Power in the U.S. Airline Industry*, Discussion Paper, INST. OF PUB. POL'Y STUD., U. OF MICH. at 1 (May 1989).

<sup>130</sup> DANGEROUS PURSUITS, *supra* note 123, at 104.

<sup>131</sup> DANGEROUS PURSUITS, *supra* note 123, at 105. For a detailed analysis of the structural impediments posed to effective competition, see *Barriers to Competition in the Airline Industry*, General Accounting Office, before the Subcomm. on Aviation of the House Comm. on Public Works and Transportation (Sept. 21, 1989) (statement of Kenneth M. Mead, Director, Transportation Issues).

<sup>132</sup> The General Accounting Office has found air fares at concentrated airports to be 27% higher than at other, comparable airports. *Effects of Airline Concentration at Hub Airports on Fares and Services, 1989: Hearing Before the Subcomm. on Aviation of the Senate Comm. on Commerce, Science, and Transportation*, 101st Cong., 1st Sess. 12 (1989) (statement of Kenneth M. Mead, Director, Transportation Issues, USGAO).

Other studies report fares at concentrated hub airports to have been inflated by 50% or more. See *Airline Economics Inc., Blue Chip Airline Financial Indicators*, 1988.

For example, asked why his airline avoids lowering its prices, American Airlines Chairman Robert Crandall candidly replied: "Because it would be dumb. . . . The reality is that you will go to Detroit because you have to go to Detroit whether the fare is \$175, \$275 or \$375." *Quoted in* Winans & Dahl, *Airlines Skid on Bad Moves*, Wall St. J., Sept. 20, 1989, at B4.

The oligopoly mentality — whereby firms in concentrated markets strive to avoid price competition with one another — has been articulated by a US Air official. Asked why an airline would refrain from lowering its fares in order to win business from its rivals, he points out: "If I know that if I cut my fare \$20 today, you're going to cut yours \$20 tomorrow, then it's stupid for me to do it." *Quoted in* Eichel, *Flying the Unfriendly Skies*, special publication, Philadelphia Inquirer, 1989, at 4. For additional evidence of noncompetitive oligopoly pricing, see Nomani, *Dispatches From the Air-Fare Front*, Wall St. J., July 11, 1989, at B1; and Nomani, *Airlines May Be Using A Price-Data Network to Lessen Competition*, Wall St. J., June 28, 1990, at 1.

See generally, Shepherd, *The Airline Industry*, in *THE STRUCTURE OF AMERICAN INDUSTRY* 230-40 (W. Adams ed.) (8th ed. 1989).

<sup>133</sup> McGinley, *Republicans Are Joining Chorus of Airline Critics Seeking Partial Reregulation to Spur Competition*, Wall St. J., Sept. 21, 1989, at A24. For a case study of the anticompetitive impact of one airline merger, see *Airline Competition: Fare and Service Changes at St. Louis Since the TWA-Ozark Merger* (USGAO Sept. 1988).

## B. Liberalization Efforts Abroad

Coinciding with these developments in the American market, there were recurring efforts to encourage greater airline competition abroad. The Common Market's "1992" program and its objective of fostering greater competition across and within West European nations is a case in point.

Traditionally, the European airline industry was pervasively cartelized, with fares dictated, and traffic shares rigidly allocated among carriers on the basis of bilateral pacts negotiated between national governments.<sup>134</sup> Dissatisfaction with high fares, however, and the goal of obtaining a truly common market, have combined to stimulate a public policy movement toward liberalization of European air transportation.

In the 1980s, the European Civil Aviation Conference, comprising the directors general of twenty-two European nations, has asserted its commitment to greater liberalization of air transportation. Over the years 1984-1987, it promulgated a number of memoranda of understanding — both between European nations as well as among non-European nations (including the United States) — intended to promote greater fare flexibility and increased opportunities for new entry.<sup>135</sup>

The EEC Commission, a non-partisan body appointed by agreement of the member states of the Common Market, has issued two major memoranda (in 1979 and again in 1984) strongly encouraging member nations to implement steps to promote increased competition in the industry, and to facilitate greater flexibility in air fares, route access, and transport capacities.<sup>136</sup> In addition, the Commission in 1986 threatened to prosecute major carriers should they continue to engage in price fixing and territorial market divisions.<sup>137</sup>

In December 1987, the European Community transport ministers unveiled a revamped airline liberalization package, proposing to ease re-

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<sup>134</sup> See generally A. SAMPSON, *EMPIRES OF THE SKY: THE POLITICS, CONTESTS AND CARTELS OF WORLD AIRLINES* (1984); Dempsey, *Aerial Dogfights Over Europe: The Liberalization of EEC Air Transport*, 53 J. AIR TRANSP. & COMM. 615 (1988).

To illustrate, industry expert Jacques Pelkmans reports that in many European countries "there is only one 'flag carrier', having been granted monopoly on many routes . . . If they exist at all, fringe competitors are extremely restrained; occasionally, it is not exaggerated to hold that they are at the mercy of the 'flag carrier', both in the market and via the power it can yield through the regulators." In a study undertaken in the early 1980s, only 2 percent of the European city-pairs examined contained more than a single designated air carrier. Pelkmans, *Deregulation of European Air Transport*, in 2 MAINSTREAMS IN INDUSTRIAL ORGANIZATION 347, 354-55, 377 (H.W. de Jong and W.G. Shepherd eds.) (1986).

<sup>135</sup> Dempsey, *supra* note 134, at 626-27.

<sup>136</sup> *Id.* at 656-63.

<sup>137</sup> *Id.* at 668.

strictions against discount fares, and permitting individual carriers to compete for up to 60-75% of cross-border traffic (as opposed to the typical 50-50 split between national flag carriers serving each other's markets).<sup>138</sup> And, in 1989, the EC transport ministers agreed that traffic sharing agreements should be scrapped by 1993, and a "double disapproval" system for fares should be instituted, which would allow carriers the freedom unilaterally to lower their fares unless all affected nations disapprove.<sup>139</sup>

Accompanying these liberalization efforts on the Community level, some individual nations on their own initiative renegotiated their bilateral airline pacts in order to enhance the scope for competition among carriers. The British and Dutch governments have led this dimension of the fight for increased competition<sup>140</sup> — with the result that new routes and traffic were opened up for new carriers, and that fare reductions of as much as 60% in some cases were initiated.<sup>141</sup>

The European Community's intent was clear. It was, according to Peter Sutherland, the Community's erstwhile Minister of Competition, to "go on one route toward greater competition, recognizing that greater efficiency results from competition."<sup>142</sup>

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<sup>138</sup> Greenhouse, *Europeans Deregulate Air Travel*, N.Y. Times, Dec. 8, 1987, at 33.

<sup>139</sup> See Greenhouse, *One Europe, but Many Airlines*, N.Y. Times, Oct. 30, 1989, at 23, and Maremont, *Where the Skies Aren't Getting Any Friendlier*, BUS. WK., Apr. 16, 1990, at 38. A number of these memoranda are reprinted as appendices in Dempsey, *supra* note 134.

<sup>140</sup> Dempsey, *supra* note 134, at 629-37. Since June 1984, for example:

the United Kingdom has concluded agreements with the Benelux countries which:

- (a) contain no limitations on capacity or frequency of services among these countries;
- (b) give either government the right to permit additional airlines to operate on any route;
- (c) enable airlines to set whatever fares they choose, unless both governments disapprove.

Arrangements that are less liberal, but nevertheless represent some advance, have also been made between the United Kingdom and West Germany and the United Kingdom and Switzerland.

R. PRYKE, *COMPETITION AMONG INTERNATIONAL AIRLINES* at 105 (1987).

<sup>141</sup> See Heard, *European Air Fares Start Falling Out of the Sky*, BUS. WK., May 19, 1986, at 63; *One Europe, Many Airlines*, *supra* note 139, at 28. However commendable these steps to liberalization may be, the "only development that would make the position of the existing carriers less secure is the provision that charter operators can enter the scheduled market." PRYKE, *supra* note 140, at 103-04.

<sup>142</sup> Quoted in *Europeans Deregulate Air Travel*, *supra* note 138, at 33. The EEC Commission declared in 1984:

[R]ecent years have made it clear that although the present regime has produced an extensive network of aviation services, the rigidities of the system . . . give rise to an increasing degree of public dissatisfaction. This criticism (not all of which is justified) has tended to centre on the civil aviation services provided within Europe; and the Commission is confirmed in its view that within the Community there is scope for introducing more flexibility and competition into the existing system without destroying it or losing the benefits that it has brought about.

Commission of the European Communities, Civil Aviation Memorandum No. 2, Progress Towards the Development of Community Air Transport Policy 32-33 (1984), quoted in Dempsey, *supra* note 134, at 660.

### C. The Joint Venture Movement

It is in this context that alliances between airlines have recently proliferated, developing in two main directions.

First, in the United States, the major carriers have not only merged with and acquired one another; at the same time, through a spate of "affiliate" agreements, alliances and cross-ownership shares, the majors have acquired effective control over smaller regional carriers — a traditional starting point for new competitors in the industry. In 1984, for example, only twelve regional airlines were involved in "partnership" agreements with major carriers. By 1988, however, the number of regional partnership alliances had grown to include 48 of the country's 50 largest regional carriers.<sup>143</sup> As a result, according to one expert, the "mission of the regionals [has] changed from serving community needs to serving the needs of the major carriers."<sup>144</sup> Regional lines favored by agreements with the majors prospered at the expense of other, unaffiliated regional carriers, and these alliances, in turn, raised barriers to expansion and new entry. Concentration in the regional segment of the industry began to resemble the concentration among the trunklines.<sup>145</sup>

Second, on the global level, most of the world's largest carriers have forged a series of interlocking alliances. These joint ventures, primarily comprised of major U.S. and European carriers, variously encompass partnerships in scheduling and marketing; sharing of gates, routes and reservation systems; and exchanges of cross-ownership ties (see Table 9 and Figure 2).

In 1987, for example, United Airlines, the 4th largest carrier in the United States, entered into an alliance with newly-privatized British Air, the largest European carrier, providing for terminal sharing, reservation cooperation, and schedule coordination.<sup>146</sup> At the time of its announcement, Lord King, British Airways' chairman, described the alliance as enabling "two of the world's best airlines to develop alongside each other as the most formidable international partnership in every part of the globe."<sup>147</sup> In addition, British Air has offered to buy up to 15% of

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<sup>143</sup> Rose, *Major U.S. Airlines Rapidly Gain Control Over Regional Lines*, Wall St. J., Feb. 17, 1988, at 1, 11.

<sup>144</sup> *Id.* at 11.

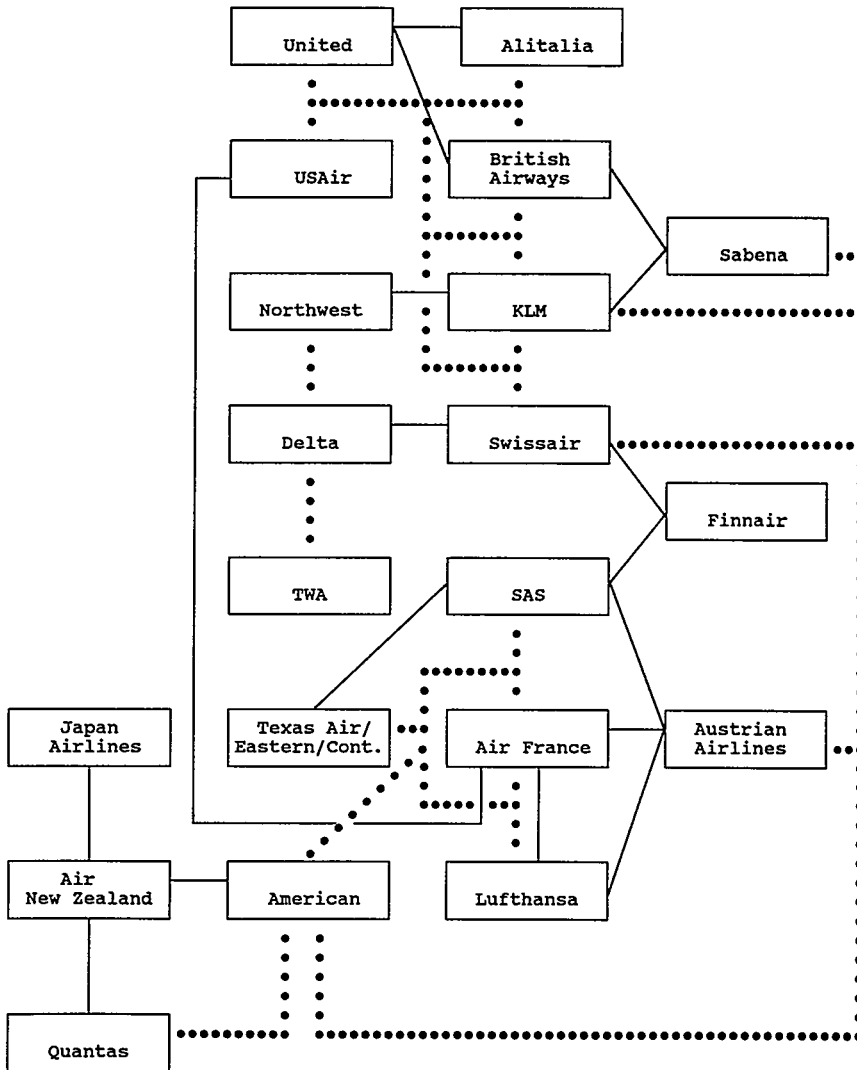
<sup>145</sup> *Id.* See also Salpukas, *Deregulation Left Only the Strong*, N.Y. Times, Mar. 18, 1990, sec. 3, at 10.

<sup>146</sup> Maremont, *British Airways is Out to Create Its Own United Kingdom*, BUS. WK., Dec. 28, 1987, at 90.

<sup>147</sup> Quoted in Prokesch, *Revamped, British Air Looks Abroad*, N.Y. Times, Sept. 2, 1989, at 31, col. 4.



Figure 2  
Airline Joint Ventures



Key = ————— Joint Operating Agreement  
 ..... Computer Reservation Tie

TABLE 9  
TEN LARGEST AIRLINES: U.S. AND EUROPE  
1988

| <u>United States</u>   |                                  | <u>Europe</u>   |                                  |
|------------------------|----------------------------------|-----------------|----------------------------------|
| <u>Carrier</u>         | <u>Passengers<br/>(millions)</u> | <u>Carrier</u>  | <u>Passengers<br/>(millions)</u> |
| Texas Air <sup>a</sup> | 73.3                             | British Airways | 22.5                             |
| American               | 64.3                             | Lufthansa       | 17.8                             |
| Delta                  | 60.0                             | Air France      | 14.8                             |
| USAir <sup>b</sup>     | 59.6                             | Iberia          | 14.5                             |
| United                 | 56.3                             | SAS             | 13.3                             |
| Northwest              | 35.8                             | Alitalia        | 9.2                              |
| TWA                    | 25.1                             | Swissair        | 7.1                              |
| Southwest              | 16.8                             | Olympic         | 6.7                              |
| Pan American           | 16.8                             | KLM             | 6.2                              |
| America West           | 12.7                             | JAT             | 3.9                              |

<sup>a</sup> includes wholly-owned Eastern and Continental subsidiaries.

<sup>b</sup> includes wholly-owned Piedmont subsidiary.

Source: Air Transport Association, *Air Transport 1989*, and Greenhouse, *One Europe, But Many Airlines*, N.Y. Times, Oct. 30, 1989, at 23.

United in the course of the latter's ongoing buyout battle,<sup>148</sup> while United, in turn, has struck a partnership agreement with Alitalia (Western Europe's 6th largest carrier) encompassing shared facilities, and coordinated pricing and scheduling agreements similar to those contained in its British Air pact.<sup>149</sup>

KLM-Royal Dutch Airlines, Western Europe's 9th largest carrier, has purchased a \$400 million ownership stake in Northwest Airlines, the 6th largest American carrier.<sup>150</sup> KLM also has disclosed plans to join with British Air in acquiring a 20% stake in the Belgian flag carrier, Sabena.<sup>151</sup>

Scandinavian Airlines System (SAS), 5th largest in Western Europe, has acquired a 9.8% ownership stake in Frank Lorenzo's Texas Air-Eastern-Continental empire — whose combined operations ranked it the largest U.S. carrier in 1988 — and the firms have undertaken to coordinate their operations worldwide.<sup>152</sup> In addition, SAS and Swissair (7th largest in Western Europe) have proposed to exchange 10% ownership

<sup>148</sup> See Greenhouse, *supra* note 139, sec. D, at 10, col. 4.

<sup>149</sup> *United, Alitalia Broaden Partnership for Marketing*, Wall St. J., June 2, 1988, at 28.

<sup>150</sup> Power & Payne, *Birds of a Feather . . . Are Doing Deals Together*, BUS. WK., Sept. 11, 1989, at 32.

<sup>151</sup> *Id.*

<sup>152</sup> *Id.*; see also Salpukas, *In Newark, Airport to Go International*, N.Y. Times, Oct. 5, 1988, sec. B, at 1, col. 2.

stakes in one another.<sup>153</sup> SAS and Swissair have also joined together with Finland's Finnair in a joint operating agreement involving cross-ownership exchanges.<sup>154</sup>

Swissair, in turn, has agreed to exchange ownership shares of 5% with Delta Air Lines, the 3rd largest carrier in the United States, and the two firms have entered into a joint marketing agreement.<sup>155</sup> In addition, Delta and Swissair have forged an equity swap with Singapore Airlines.<sup>156</sup>

Similarly, Lufthansa and Air France — Western Europe's 2nd and 3rd largest carriers — have struck an alliance providing for joint marketing, coordination of routes and schedules, and a sharing of gates and terminals, as have Air France and U.S. Air.<sup>157</sup>

These global partnerships are becoming more comprehensive in nature and organization. For example, American Airlines, Japan Air Lines and Australia's Qantas have joined together to purchase a 35% stake in New Zealand's recently privatized carrier, Air New Zealand.<sup>158</sup> In the case of Austrian Airlines, Swissair owns 8% of the carrier, All Nippon Air owns 3.5%, Air France owns 1.5%, and Lufthansa is contemplating purchasing a 10% share of the line.<sup>159</sup>

In addition to these alliances, and overlapping with them, has been the emergence of computer reservation consortiums between leading European carriers which, in turn, are teaming up with the largest American computer systems. In Europe, as in the United States, a few computer systems have come to dominate air reservations — Galileo (a joint consortium involving British Air, KLM, Swissair and Alitalia, among others), and Amadeus (a joint venture involving Lufthansa, Air France, and SAS).<sup>160</sup> The Galileo system, in turn, has allied itself with United Airlines' Apollo system, the 2nd largest air reservation system in the United States,<sup>161</sup> while Amadeus has since allied itself with Texas Air's

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<sup>153</sup> James, *How Will the Future Airline Globe Be Divided*, Fifteenth Annual FAA Aviation Forecast Conference, 1989, at 3.

<sup>154</sup> *Three European Airlines in Deal*, N.Y. Times, Oct. 30, 1989, sec. D, at 10, col. 6.

<sup>155</sup> Power & Payne, *supra* note 150, at 32.

<sup>156</sup> James, *supra* note 153, at 4-5.

<sup>157</sup> Greenhouse, *supra* note 139, sec. D, at 10, col. 4; *U.S. Air, Air France Plan Links Between Businesses*, Wall St. J., Sept. 25, 1990, at C12.

<sup>158</sup> Power & Payne, *supra*, note 150, at 32.

<sup>159</sup> James, *supra* note 153 at 7.

<sup>160</sup> Lohr, *Sparring to Book Europe's Flights*, N.Y. Times, May 24, 1988, sec. D, at 4, col. 4.

<sup>161</sup> *Id.*; See also Carey, *Race For Computerized Booking Systems is Heating Up Among European Airlines*, Wall St. J., Dec. 1, 1988, at A18, col. 2.

Continental-Eastern reservation system and American's Sabre System.<sup>162</sup> At the same time, on the Asian front, one Asian computer reservation system (Abacus) has tied into the Northwest/TWA/Delta software system, while American Airlines has linked with Qantas to market American's Sabre computer reservation system in the Australian region of the Pacific.<sup>163</sup> In the light of their pronounced susceptibility to anticompetitive manipulation, these joint ventures in computer reservation systems are particularly troublesome.<sup>164</sup>

#### D. Public Policy Issues

In their scope, their scale, and the rapidity of their growth, these joint ventures and inter-firm alliances appear to pose clear anticompetitive threats in at least three significant ways.

First, with regard to the United States, and in the wake of the industry's progressive consolidation, the joint ventures seem designed to effectively co-opt the only two remaining sources of potential competition: the regional American carriers, which might otherwise develop into larger lines and compete with the majors; and European carriers, which would otherwise constitute prime candidates for potential entry into the U.S. market. This is somewhat ironic: At a time when U.S. and European carriers are fashioning joint ventures and alliances at a furious pace, some commentators still insist that foreign carriers are the competitive antidote to the oligopoly and monopoly ills afflicting the American market.<sup>165</sup>

Second, alliances between Europe's largest carriers clearly jeopardize EC efforts to liberalize air transportation and to promote competition. As *Business Week* observes: "Even before the European Community unleashes deregulation, airlines across Europe are hustling to defend long-protected routes. While cementing cozy alliances among themselves, the

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<sup>162</sup> Solomon, *U.S.-Based Airlines Heighten the Battle For Europe's Skies*, Wall St. J., Apr. 18, 1989, at A4; *New Linkup for Travel*, New York Times, Nov. 17, 1990, at 8.

<sup>163</sup> Feldman, *The New Alliances*, FREQUENT FLYER, June 1990, at 74.

<sup>164</sup> For the anticompetitive impact of computer reservation systems, see *Airline Computer Reservation Systems: Hearing Before the Subcomm. on Aviation of the House Comm. on Public Works and Transportation*, 100th Cong., 2nd Sess. 42-67 (1988) (statement of Victor S. Rezendes, USGAO); see also Nomani, *Airlines May Be Using A Price-Data Network to Lessen Competition*, Wall St. J., June 28, 1990, at 1, col. 6.

<sup>165</sup> See Koten, *Foreign and U.S. Airlines Clash Over Access to Domestic Routes*, Wall St. J., Dec. 7, 1987, at 23, col. 3; and Cushman, *Air Market Rule Change*, N.Y. Times, Oct. 6, 1989, sec. D, at 4, col. 3. Placed in the context of this proliferation of joint ventures, transportation Secretary Skinner's recently announced policy permitting foreign airlines to acquire larger ownership positions in U.S. carriers also seems incompatible with the goals of fostering a more competitive international aviation marketplace (remarks prepared for delivery by Secretary of transportation Samuel K. Skinner, National Press Club, Washington, D.C., January 23, 1991 (mimeo)).

entrenched carriers are swallowing small airlines that could pose a threat." In this, the magazine points out, "they've learned from the frenetic U.S. shakeout that bigger is better and that it pays to dominate key airport hubs." As a result, "the hopes for widespread competition, so bright only a few months ago, are dimming under the crushing weight of alliances, takeovers, and squeeze plays. . ."<sup>166</sup> These trends are exacerbated by an emerging merger and consolidation movement in Europe, as European majors — like their American counterparts — acquire smaller, recently established carriers,<sup>167</sup> as well as some of their very largest potential competitors at home (i.e., British Air's 1987 acquisition of British Caledonia Airways, raising BA's share of British international flights to 95%,<sup>168</sup> and Air France's 1990 announcement of its plans to take over the two largest domestic French carriers, UTA and Air Inter).<sup>169</sup>

Third, considered in their entirety, this burgeoning network of inter-carrier cooperation pacts may be effectively consolidating the airline industry on a global basis, and concentrating it in the hands of a world oligopoly. "These agreements, which are turning rivals into allies, will have a profound effect on competition," Michael Dershin points out. "At present, the beginning of the four global partners [is] taking shape: United/[British Airways]; Delta/Swissair; Texas Air/SAS; and Northwest/KLM."<sup>170</sup> Other Community officials discern an even tighter nexus emerging; they suggest that the eventual advent of a duopoly of carriers, jointly linked around the two major computer reservation systems, may not be farfetched in the light of current trends.<sup>171</sup>

In sum, joint ventures — joint operating agreements, jointly controlled gates and routes, cross-ownership ties, jointly controlled computer reservation systems — may well be beginning to replicate, and to extend on a global scale, the anticompetitive structure, conduct and performance experienced in United States air transportation.

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<sup>166</sup> Maremont, *supra* note 139, at 38-39.

<sup>167</sup> Feldman, *Holding the Fort*, FREQUENT FLYER, June 1989, at 28-32.

<sup>168</sup> Marcum, *U.K. to Review British Air Plan For A Takeover*, Wall St. J., Aug. 7, 1987, at 16, col. 1; and Hemp & Carey, *British Airways Wins Approval to Buy Carrier*, Wall St. J., Nov. 12, 1987, at 34.

<sup>169</sup> Toy, Maremont & Kapstein, *Will the EC Let Air France Spread Its Wings?* BUS. WK., Jan. 29, 1990, at 48.

<sup>170</sup> Quoted in James, *supra* note 153, at 6.

<sup>171</sup> See UK Regulator Foresees Active Role By EC to Ensure Airlines Competition, 58 ANTITRUST & TRADE REG. REP. 855 (May 31, 1990).

## V. LOOKING BACKWARD: GLOBAL JOINT VENTURES AND THE INTERWAR CARTEL MOVEMENT

The preceding case studies illustrate the anticompetitive problems posed by joint ventures. But it is important to recognize that these examples are neither isolated, nor are they new. Infatuation with cooperation and corporate "strategic alliances" played a key role in the epic, transnational cartel movement that spanned the first four decades of the century, and that peaked during the years between the two world wars.

Then, as now, the nation's economic performance was cause for concern. Then, as now, American industry charged that "ruinous foreign competition" was destroying it.<sup>172</sup> Then, as in recent years, anti-trust laws "gathered dust on the statute books."<sup>173</sup>

In that earlier age, as today, business leaders convinced themselves that "cooperation" marked the path to better economic performance. Britain's Lord McGowan, influential Conservative Party member, co-organizer of the British Imperial Chemical Industries combine and leading spokesman for British industry, declared: "Large businesses have in the past been built on the foundations of unrestricted competition, but this is no longer a method which generally commends itself. It belongs to an age when men could imagine no other way to progress than at the expense of others. . . . There are few today who would recommend a return to unrestricted competition as the *basis* for our economy. . ." The only viable option, he insisted, was business "cooperation and agreement."<sup>174</sup>

As articulated by Sir Alfred Mond, another leading British industrialist, "The old idea of the heads of great business meeting each other with scowls and shaking each other's fists in each other's faces . . . may be very good on the films, but it does not accord with any given facts." Instead, as he saw it, an "alliance of great companies operating on huge scales with every kind of interest and working in harmonious co-operation renders it possible to have exchange of information as regards methods of business and new ideas, and we all do better by working in that manner . . ."<sup>175</sup>

These views led business leaders to conclude that cartelization afforded the best ground rules for conducting the world's industry.<sup>176</sup> An

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<sup>172</sup> Kreps, *Experience with Unilateral Action Toward International Cartels*, in A CARTEL POLICY FOR THE UNITED NATIONS 70, at 87 (1945).

<sup>173</sup> *Id.* at 78.

<sup>174</sup> *Combines and Cartels*, *The Sunday Times* (London), July 25, 1943, at 4, quoted in G. STOCKING & M. WATKINS, *CARTELS OR COMPETITION* 357 (1948).

<sup>175</sup> Quoted in G. STOCKING & M. WATKINS, *supra* note 54, at 429.

<sup>176</sup> Cartels, Lord McGowan believed, "can lead to a more ordered organization of production . . . They can help to stabilize prices at a *reasonable* level . . . They can lead to a rapid improvement in

eruption of cartels was the result, encompassing many of the world's major industries, and involving producers in virtually all industrialized nations. In steel, for example, a

general agreement regulated the export of all crude or semifinished steel, and six special agreements regulated the export of certain classes of steel products. The general agreement provided over-all quotas for each national group. The special agreements fixed specific quotas for particular classes of steel products — bars, rods, structural shapes, and the like — which might or might not correspond to the over-all quotas of the several national groups.<sup>177</sup>

As the steel cartel became fully operational, it expanded its scope and tightened its controls. In addition to the initial organizing producers in Germany, Belgium, France, and Luxembourg, it eventually came to include the major steel-producing groups of Czechoslovakia, Poland, Austria, and the United Kingdom and the United States. By 1937, it encompassed an estimated 90% of all iron and steel traded in international markets.<sup>178</sup>

Other cartelized fields included aluminum, petroleum, magnesium, electric lamps, ball bearings, and virtually every aspect of the sprawling chemicals industry.<sup>179</sup> Stocking and Watkins estimated that, by 1939, international cartels had come to control approximately 42% of manufactured products, 60% of agricultural products, and 87% of the mineral products sold in the United States.<sup>180</sup> Professor James Rahl estimates that international cartels controlled 30 to 50% of all world trade in the years preceding the outbreak of World War II.<sup>181</sup> At the outbreak of the war, a Justice Department investigation found 179 global cartels in operation, with American firms participating in 109 of them.<sup>182</sup>

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technique and a reduction in costs . . . They can spread the benefits of inventions from one country to another by exchanging research results, by the cross-licensing of patents, and by the provision of important 'know-how' . . ." *Quoted in STOCKING & WATKINS, supra note 174, at 356 (italics in original).*

For empirical refutations of these claims, see *infra* note 188, and the sources cited therein.

It should be noted that in reaching these conclusions, industrialists could look to the academic community for support. In 1927, D.H. McGregor, a leading Cambridge economist in the field of industrial organization, announced that "the idea of regulating output by concerted arrangements between producers is no longer seriously opposed by economic theory . . ." *Quoted in CARTELS OR COMPETITION, supra note 174, at 60.*

<sup>177</sup> STOCKING & WATKINS, *supra* note 54, at 186.

<sup>178</sup> *Id.* at 187.

<sup>179</sup> See generally *id.*; C. WILCOX, *COMPETITION AND MONOPOLY IN AMERICAN INDUSTRY* 219 (TNEC Monograph No. 21, 1940.)

<sup>180</sup> STOCKING & WATKINS, *supra* note 54, at 4-5.

<sup>181</sup> Rahl, *International Application of American Antitrust Laws: Issues and Proposals*, 2 NW. J. INT'L L. & BUS. 336, 353 (1980).

<sup>182</sup> *Id.*

Clearly, the degree of "cooperation" which had been achieved was impressive. But cooperative aspirations eventually exceeded even these considerable accomplishments, as business leaders sought to subsume their intra-industry alliances within ever grander systems of inter-industry and international cartel controls. Among the latter was the infamous Düsseldorf Agreement of 1939. As summarized by Stocking and Watkins:

The object of the Düsseldorf conference of March 15-16, 1939 was a general agreement between German and British industry to replace competition by cooperative exploitation of world markets. The idea was not simply to foster cartels in industries in which they had not yet developed but to coordinate the terms of various existing agreements, to extend the program to other countries, and in general to consolidate the whole movement. It was, in brief, a plan to complete the cartelization of the world economy.<sup>183</sup>

Transnational "joint ventures" were among the tools employed in constructing and sustaining these cartels. For example, in 1928, in a letter to his German counterpart at the Farben chemical firm, Irenee du Pont outlined the importance of joint ventures in maintaining cartel control: "Our suggestion," he wrote, "in the ammonia field and the high pressure synthetic field in general, or in dyestuffs or pharmaceuticals, *or in any field of manufacture where it appears that the situation makes it desirable to enter each others' market, is that we get together. . . .* It appears to us that the most logical form in any of these cases would be to form a domestic company, to be jointly owned . . ." <sup>184</sup>

Global firms, versed in the art of peaceful coexistence, came to understand, first, that suppressing competition in one sphere of their operations would facilitate control in other areas and, second, that in achieving this result joint ventures could play an important institutional role. They recognized, as one DuPont official explained the appeal of technology-sharing joint ventures, that "satisfactory relations on the commercial side would follow automatically, as [it is] unlikely that the companies would compete with one another commercially in a senseless fashion, while cooperating technically."<sup>185</sup>

The petroleum industry, as already noted, offers one illustration of the role that joint ventures came to play in creating and cementing global market control. The world chemical cartel, as it was found to operate in 1946, affords another:

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<sup>183</sup> STOCKING & WATKINS, *supra* note 174, at 60-61.

<sup>184</sup> *Quoted in* C. EDWARDS, ECONOMIC AND POLITICAL ASPECTS OF INTERNATIONAL CARTELS, REPORT PREPARED FOR THE SUBCOMM. ON WAR MOBILIZATION OF THE SENATE COMM. ON MILITARY AFFAIRS, 78th Cong., 2nd Sess. 8 (1944) (emphasis added).

<sup>185</sup> *Quoted in id.* at 33.



As a part of a broader system of intercorporate arrangements, the du Pont Co. shares with a subsidiary of I.G. Farbenindustrie ownership of the Bayer-Samesan Co., through which both great corporations carry on all of their business in the United States pertaining to seed disinfectants. In Canada, Canadian Industries, Ltd., is the jointly owned subsidiary of du Pont and Imperial Chemical Industries, which have mutually agreed that in chemical fields occupied by both companies their chemical manufacturing and importing activities in Canada shall be undertaken exclusively by this subsidiary. Both in Brazil and Argentina the same two great companies have organized subsidiaries known as Duperial, and in each case they have agreed to do business in the country only through this subsidiary. The function of each of the Duperial companies is not only to undertake local manufacture but also to import the products of both parent companies, thus apportioning shares in the local market and eliminating price competition merely by erecting its own sales policy. The Argentine Duperial participates with Comptoir des Textiles Artificielles and with a local company, Bunge & Born, in the joint ownership of Ducilo, a concern through which du Pont, Imperial Chemical Industries, Comptoir, and Bunge & Born have agreed to conduct all their rayon manufacture in the Argentine for a period of years.<sup>186</sup>

Examining these and other joint ventures among the world's largest chemical firms (including joint ventures in explosives and finishes), a court later found them to be "means designed and used by [chemical giants] to avoid and prevent competition between themselves and with others . . . They were a means used for the accomplishment of the basic understanding for the division of world-wide territories."<sup>187</sup>

In the end, this massive cooperation movement failed to achieve the benefits its proponents had so vociferously proclaimed for it. Instead of promoting United States exports, it reduced them — as American participants limited their output to fit the quotas they negotiated with their foreign rivals, and as they undertook to prevent non-participating American firms from undermining the cartels they had forged. Instead of boosting technological progress, cooperation retarded it, as cartel members struggled to maintain their vested interest in the status quo, and to prevent what they perceived as the disruptive impact of technological change. And, instead of reviving world economies, cooperative control — achieved in part through alliances and joint ventures — operated to exacerbate their performance problems, as prices were raised and production volumes (and employment levels) were cut.<sup>188</sup> As the damaging evidence mounted, infatuation with cooperation eventually ended as the

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<sup>186</sup> *Id.* at 7-8.

<sup>187</sup> *United States v. Imperial Chemical Indus. Ltd.*, 100 F. Supp. 502, 592 (S.D.N.Y. 1951).

<sup>188</sup> For extensive documentation and illustration of these results, see EDWARDS, *supra* note 184, at 9-41; STOCKING & WATKINS, *supra* note 174, at 99-178, 216-254.

touchstone for public policy; by 1945, American antitrust agencies had filed suits against cartels covering an estimated 105 commodities and products, and involving approximately 165 firms (of which 129 were American).<sup>189</sup>

## VI. CONCLUSION

There is no evidence that enforcement of the antitrust laws in recent years has hampered the negotiation and effectuation of corporate joint ventures in any demonstrable way.<sup>190</sup> Nor is there credible evidence that such alliances and pacts are the keys for promoting production efficiency, technological innovation, or international competitiveness. Indeed, there is considerable evidence to the contrary.<sup>191</sup>

Joint ventures — which are, in effect, “partial” mergers and “quasi”

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<sup>189</sup> See Kreps, *supra* note 172, at 84, n. 29. See also W. BERGE, *CARTELS: CHALLENGE TO A FREE WORLD* 250-56 (1944).

<sup>190</sup> In addition to our examination of the proliferation of joint ventures in petroleum, automobiles and airlines, see Congressional Budget Office, *USING R&D CONSORTIA FOR COMMERCIAL INNOVATION: SEMATECH, X-RAY LITHOGRAPHY, AND HIGH RESOLUTION SYSTEMS* (June 1990). The CBO points out that since the mid-1970s, joint ventures have been announced at an average rate of nearly one per week, and draws the obvious conclusion “that so many joint ventures were formed suggests that the [antitrust] law was not a major constraint; if firms wanted to form a partnership, by and large they could.” *Id.* at 91.

In a related vein, Professor Diane P. Wood points out that it is a myth that permissive policies adopted toward foreign corporate collaboration by governments abroad serves to disadvantage American firms:

The competition rules of the European Economic Community, set forth in Articles 85 and 86 of the Treaty of Rome and implemented by the European Commission, are comprehensive and strong. It is not uncommon, in fact, for practices now to be condoned in the United States that the Commission would condemn . . . From a substantive standpoint, European firms face a regulatory regime very similar to that faced by U.S. firms.

National laws have also been strengthened all over the world. The competition laws of the Federal Republic of Germany have been regarded as among the world's toughest for years. Canada, France, and the United Kingdom, to name three other countries, have strengthened their competition laws in recent years . . . In sum, an international consensus is building about the basic content of competition law, such that it is no longer persuasive to argue that U.S. firms are uniquely burdened (and benefitted) by these laws.

Wood, *Commentary: Antitrust and International Competitiveness in the 1990s*, 58 *ANTITRUST LAW J.* 591, 597-98 (1989). See also Brodley, *Antitrust Law and Innovation Cooperation*, 4 *J. ECON. PERSPECTIVES* 97 (1990).

<sup>191</sup> In addition to the industry case studies analyzed in this article, see *United States v. Ivaco*, 704 F. Supp. 1409 (W.D. Mich. 1989); *Yamaha Motor Co. Ltd. v. F.T.C.*, 657 F. 2d 971 (1981), *cert. denied*, 465 U.S. 915 (1982); *United States v. Columbia Pictures Indus.*, 507 F. Supp. 412 (S.D. Calif. 1980); *Berkey Photo v. Eastman Kodak Co.*, 603 F. 2d 263 (1979), *cert. dismissed*, 444 U.S. 1093 (1980); *United States v. Imperial Chem. Indus. et. al.*, 100 F. Supp. 504 (S.D.N.Y. 1951); *United States v. Minnesota Mining & Mfg. et. al.*, 92 F. Supp. 947 (D. Mass. 1950); *United States v. Timken Roller Bearing Co.*, 83 F. Supp. 284 (N.D. Ohio 1949). In his recent analysis, Professor John T. Scott finds that R&D joint ventures may well reduce social welfare by diminishing competition for innovation. Scott, *Diversification versus co-operation in R&D Investment*, 9 *MANAGERIAL AND DECISION ECONOMICS* 173 (1988).

consolidations — should be subjected to the same litmus test for legality as corporate mergers and acquisitions generally. At a minimum, joint ventures should be evaluated according to the structure-oriented “functional” standard for mergers articulated by the Supreme Court twenty seven years ago in *Brown Shoe*,<sup>192</sup> and explicitly applied by the Court to joint ventures twenty-six years ago in *Penn-Olin*.<sup>193</sup> As an alternative policy, Congress might consider enacting legislation requiring the proponents of any joint venture or corporate alliance exceeding a given threshold size — say, \$1 billion — to file a public impact statement to accompany their proposed venture. This impact statement would require a showing that the joint venture will enhance production efficiency; that it will stimulate technological innovation; that it will promote international competitiveness; and that these objectives cannot be achieved in the absence of the proposed alliance. Unless this showing can be made, the joint venture would be disallowed.<sup>194</sup> Joint ventures between smaller

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<sup>192</sup> Congress indicated plainly [in enacting the Celler-Kefauver amendment to section 7 of the Clayton Act in 1950] that a merger had to be functionally viewed, in the context of its particular industry. That is, whether the consolidation was to take place in an industry that was fragmented rather than concentrated, that had seen a recent trend toward domination by a few leaders or had remained fairly consistent in its distribution of market shares among the participating companies, that had experienced easy access to markets by suppliers and easy access to suppliers by buyers or had witnessed foreclosure of business, that had witnessed the ready entry of new competition or the erection of barriers to prospective entrants, all were aspects, varying in importance with the merger under consideration, which would properly be taken into account.

*Brown Shoe Co. v. United States*, 370 U.S. 294, 321-22 (1963).

The fundamental logic motivating this stance toward mergers, the Court explained, was Congress' concern about “the rising tide of economic concentration,” its “provision of authority for arresting mergers at a time when the trend to a lessening of competition in a line of commerce was still in its incipency,” and its legislative action to assure the antitrust authorities and the courts “the power to brake this force at its outset and before it gathered momentum.” *Id.* at 317-318.

<sup>193</sup> *United States v. Penn-Olin Chem. Co.*, 378 U.S. 158 (1964). Writing for the majority, Justice Tom C. Clark stated: “The joint venture, like the ‘merger’ . . . often creates anticompetitive dangers. It is the chosen instrument of two or more corporations previously acting independently and usually competitively with one another. The result is a ‘triumvirate of associated corporations.’” *Id.* at 169.

The Court enunciated the following criteria for evaluating the anticompetitiveness of joint ventures:

The number and power of the competitors in the relevant market; the background of their growth; the power of the joint venturers; the relationship of their lines of commerce; the competition existing between them and the power of each in dealing with the competitors of the other; the setting in which the joint venture was created; the reasons and necessities for its existence; the joint venture's line of commerce and relationship thereof to that of its parents; the adaptability of its line of commerce to non-competitive practices; the potential power of the joint venture in the relevant market; an appraisal of what the competition in the relevant market would have been if one of the joint venturers had entered it alone . . . and such other factors as might indicate potential risk to competition in the relevant market.

*Id.* at 177. “Overall,” the Court concluded, “the same considerations apply to joint ventures as to mergers, for in each instance we are but expounding a national policy enunciated by the Congress to preserve and promote a free competitive economy.” *Id.* at 170.

<sup>194</sup> Some authorities contend that the current trend in the opposite direction of affording even more lenient treatment to joint ventures, will serve to undermine American anti-cartel policy by

firms, and firms with insignificant market shares, would be left undisturbed.

Perhaps Professor Michael E. Porter of the Harvard Business School puts the public policy issue of joint ventures in proper perspective. Based on an impressive empirical study, covering scores of industries and firms across ten nations,<sup>195</sup> he rejects the claim that “globalization of markets has created a new era in which the old rules of competition must be discarded, and in which domestic rivalry is unimportant.”<sup>196</sup> Retreating from competition, he points out, “will not make American companies competitive, or make America competitive.”<sup>197</sup> World-class economic performance, he finds, results “not from a comfortable home environment in which risks have been minimized, but from pressure and challenge — from demanding home customers, from capable home based suppliers and most of all from local rivalry.” What is needed in United States industry, he concludes, “is not less competition but more. Instead of relaxing antitrust enforcement, we should be tightening it. Mergers and alliances between leading competitors should be prohibited — they are good neither for companies nor for America. . . . The proposal to relax antitrust scrutiny of joint production ventures should be quietly and quickly dropped.”<sup>198</sup>

Amidst the cacaphony to accord joint ventures favored status under the antitrust laws, it may be wise to heed the counsel of Sherlock Holmes: “It is fatal to theorize in advance of the facts.”

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converting even the most blatant instances of cartelization into “joint venture” cases, ensnaring the judiciary in protracted expeditions into intricate and complicated analyses, and militating toward the kind of ongoing government regulation and oversight that business claims to deplore. See Maher & LaMont, *National Cooperative Research Act of 1984: Cartelism for High-Tech Ventures?*, 7 DICK. J. OF INT’L LAW 2, 9, 15-16 (1988).

<sup>195</sup> M. PORTER, *THE COMPETITIVE ADVANTAGE OF NATIONS* (1990).

<sup>196</sup> Porter, *Japan Isn’t Playing by Different Rules*, N.Y. Times, July 22, 1990, sec. 3, at 13, col. 2.

<sup>197</sup> *Id.*

<sup>198</sup> *Id.* For an analysis of the untoward economic consequences of foreign government efforts to encourage corporate consolidation and market concentration, on the grounds of what proved to be the misplaced belief that large corporate size and high domestic industry concentration would promote national competitiveness in global markets, see Adams & Brock, *The Bigness Mystique and the Merger Policy Debate: An International Perspective*, 9 NW. J. OF INT’L LAW & BUS. 1 (1988).