Thus, by 1929 the U.S. publishers as well as the American manufacturers found their growing foreign operations shaping their trade preferences in the direction of freer trade.

Intra-industry debates regarding trade issues for the newsprint industry were limited in the 1920s. The central debate appeared to be not over the extent of protection but over the best strategy for opening markets. In 1921 this debate was reflected in the different positions adopted by St. Regis and International Paper. St. Regis felt the best way to ensure open markets was through unilateral policy moves; International Paper viewed aggressive, retaliatory policies as most effective. But even this muted debate over strategy was not evident in 1929. By that time, the extension of all the major U.S. firms' operations into Canada aligned their interests and strategies on the tariff issue. No internal debates over the industry's preference for free trade in newsprint were visible at this point.

Overall, the newsprint industry provides strong support for the argument advanced about Type IV industries. Having extensive and integrated foreign operations, the U.S. manufacturers found themselves tied tightly to the international economy, which in turn conditioned their trade preferences. They consistently supported the duty-free status of newsprint imports in the 1920s, despite the economic distress they were experiencing. In addition, their support for open markets increased as their foreign investment ties deepened in the late 1920s. As this case suggests, extensive, integrated multinational operations can pull firms away from preferences for protection generated by severe import competition and economic difficulty.

CHAPTER 4

The 1970s U.S. Case Studies

SIX AMERICAN INDUSTRIES in the 1970s are examined below to see whether they fit the hypothesis that industries with substantial links to the international economy are less protectionist than more domestically oriented industries, even if both are facing serious economic distress. As in chapter 3, each case study has two parts. First, the industry's economic difficulties and import problems are discussed in order to document its a priori interest in protecting its domestic market. The industry's ties to the international economy are detailed at both the industry and the firm levels, to allow classification of each case in terms of the argument and to generate expectations about its preferences on trade.

Second, the industry's preferences on trade issues, as expressed in three arenas, are examined. In the 1970s, trade law, rather than the tariff, was the major means of obtaining protection from imports in the United States. Thus a central focus here is the industry's activities in petitioning and lobbying the relevant executive agencies—i.e., the U.S. International Trade Commission (ITC), the Department of Commerce, the Department of the Treasury, and the office of the U.S. Special Trade Representative. Another consideration is each industry's involvement in Congress, especially its testimony concerning the GATT negotiations of the Tokyo Round and other attempts to introduce trade legislation. Finally, the industry's internal political divisions over trade issues are discussed. The focus is on divisions among the firms and the effects of these divisions on the industry's political activities. A survey of these three arenas provides a comprehensive picture of our dependent variable—the trade preferences of the selected 1970s industries and of the firms within them.

CASE 1: FOOTWEAR

The U.S. nonrubber footwear industry experienced tremendous economic distress and decline during the 1970s. Factory closings were numerous, with over 400 U.S. factories shut down between 1968 and

1983.[1] Total employment in the industry declined each year, and its profitability also suffered badly.[2]

The footwear industry was also besieged by imports. Its rate of increase in import penetration was one of the highest among U.S. manufacturers between 1971 and 1978.[3] Moreover, import penetration surged 111 percent between 1968 and 1976, and 54 percent between 1981 and 1983.[4] In absolute terms, nonrubber footwear imports accounted for 21.5 percent of U.S. consumption in 1968 and for 51 percent in 1979.[5] Because of this foreign competition and economic distress, the footwear industry was likely to seek protection.

In terms of its ties to the international economy, the manufacture of nonrubber footwear was a Type I industry, lacking significant exports and multinational operations. In all aspects, its trade dependence was limited. Its net trade balance became increasingly negative in the 1970s.[6] While imports as a percentage of domestic consumption surged during the decade, exports never moved beyond .05 percent of domestic consumption.[7] U.S. producers of nonrubber footwear were never successful exporters. At the same time, they experienced their keenest competition in their home market from foreign producers.

The U.S. footwear industry had little multinational production. Its direct foreign investment was small, about $53 million in 1977.[8] Its

[1] This case covers only nonrubber footwear (SIC 3143 and 3144). American Footwear Industry Association (hereafter AFIA), "Nonrubber Footwear Fact Sheet" (Washington, D.C.: AFIA, December 29, 1983); U.S. Dept. of Commerce, Bureau of the Census, *1974* and *1979 Annual Survey of Manufactures* (Washington, D.C.: GPO, 1976, 1983); John Mutti and Malcolm Bale, "Output and Employment in a 'Trade Sensitive' Sector: Adjustment in the U.S. Footwear Industry," *Weltwirtschaftliches Archivs* 117 (1981):353; U.S. International Trade Commission (hereafter U.S. ITC), *Footwear Investigation*, TA-201-18, pub. no. 799 (February 1977), p. A-10; U.S. ITC, *Footwear Investigation*, TA-201-7, pub. no. 758 (February 1976), p. C-44.

[2] U.S. Dept. of Commerce, *1974* and *1979 Annual Survey of Manufactures*; Michael Szenberg, John Lombardi, and Eric Lee, *The Welfare Effects of Trade Restrictions: A Case Study of the U.S. Footwear Industry* (New York: Academic Press, 1977), pp. 2-4; Mutti and Bale, "Output and Employment," pp. 353-54.

[3] U.S. Dept. of Commerce, *U.S. Commodity Exports and Imports as Related to Output, 1976/75* and *U.S. Commodity Exports and Imports as Related to Output, 1977/76* (Washington, D.C.: GPO, 1979, 1982).

[4] AFIA, "Nonrubber Footwear Fact Sheet."

[5] U.S. Dept. of Commerce, *U.S. Commodity Exports and Imports, 1976/75* and *1977/76*.

[6] Ibid.

[7] Ibid.

[8] U.S. Dept. of Commerce, Bureau of Economic Analysis, unpublished data printout. This data is for the two-digit SIC leather and leather products sector; it overstates the amount for the footwear industry.

ratio of foreign assets to total assets hovered around 4 percent, unchanged since the 1960s.[9] Whatever multinationality existed did not involve integrated global operations. Of footwear production done abroad by U.S. firms, little was exported back to the United States.[10] The largest firms, however, did develop into major importers into the U.S. market after the late 1970s. Some of these firms began offshore production; others simply bought from foreign producers. By the early 1980s, the international ties of these large firms had become important and were often their primary source of profits. Overall, however, the multinational position of the U.S. footwear industry was relatively small, despite the dependence of the larger firms on foreign sources by the 1980s.

Two other aspects of the industry affected its trade policy preferences. First, the industry was relatively unconcentrated. It consisted of almost a thousand establishments in the early 1970s.[12] Most of these firms were small and privately owned.[13] The industry was homogeneous; most of its firms were similar in structure and possessed few, if any, international ties. This made political cooperation easier. Only the largest had any interest in the international market, and only after 1980 was this of any consequence. Second, footwear production was labor intensive and not technologically dynamic.[14] This made adjusting to foreign competition difficult. Little technology was available to reduce the industry's labor intensiveness, and most firms were too small to afford any large innovations. The U.S. footwear producers experienced great import competition over the decade, lacked international ties, and had little ability to adjust to this fierce new competition.

[9] U.S. Dept. of Commerce, *1972* and *1977 Enterprise Statistics*, (Washington, D.C.: GPO, 1977, 1981).

[10] Réal Lavergne, "unpublished data and appendices," used in Lavergne, *Political Economy of U.S. Tariffs*.

[11] Interviews with AFIA and EC. Examples are Melville, Endicott-Johnson, and R. G. Berry, all of whom left U.S. manufacturing for importing and moved to the VFRA from the AFIA.

[12] U.S. ITC, *Footwear Investigation*, no. 758, 1976, appendix C-83.

[13] OECD, *The Footwear Industry* (Paris: OECD, 1976); Szenberg, Lombardi, and Lee, *Welfare Effects of Trade Restrictions*, pp. 7-15; Mutti and Bale, "Output and Employment," p 353; U.S. ITC, *Footwear Investigation*, no. 758, 1976, appendix C-83.

[14] For figures on labor intensity and R&D, see U.S. Dept. of Commerce, *Census of Manufactures, 1979* (Washington, D.C.: GPO, 1983); U.S. Dept. of Commerce, *Census of Manufactures, 1972* (Washington, D.C.: GPO, 1976). In general, see U.S. ITC, *Footwear Investigation*, no. 758, 1976, pp. A-71, A-75; OECD, *Footwear Industry*; David Yoffie, "Adjustment in the Footwear Industry," in *American Industry in International Competition*, ed. John Zysman and Laura Tyson (New York: Cornell University Press, 1983), pp. 325-27.

The Dependent Variable

The central political issue facing the U.S. footwear industry in the 1970s concerned imports, especially the rapid, disruptive adjustment problems they caused in the U.S. market. As the level of imports rose over the 1970s, the industry became increasingly adamant in its attempts to gain protection. Its activities in petitioning the ITC, in lobbying Congress, and in developing a unified industry position demonstrated the intensity of its desire for restraints on imports. By the early 1980s, however, this consensus for protection had begun to break down.

The industry was very active throughout the 1970s in pressing the ITC and various executive agencies for relief. Between 1973 and 1978, footwear manufacturers, workers, and unions petitioned the ITC approximately 355 times.[15] Although the majority of these petitions – 333—were for trade adjustment assistance to individual workers or firms, the remaining 22 involved industry attempts to receive escape clause treatment or to have antidumping and/or countervailing duties imposed on imports.[16] Of these cases, the industry's three petitions for escape clause action, which demanded greatly increased tariff rates (or quotas) on all shoe imports, deserve special attention.

The first of these escape clause petitions was filed in 1970 at the urging of President Richard M. Nixon. This petition, one of the first concerted actions by the industry as a whole, was motivated in part by the surge of imports following the Kennedy Round tariff cuts on footwear duties implemented in 1968. U.S. footwear manufacturers, smarting from these rising foreign sales, began demanding a repeal of the tariff cuts and voicing strong opposition to any new bill granting the President authority to reduce tariffs in multilateral negotiations. To calm the industry, President Nixon instructed the ITC- -then the USTC—to investigate whether the tariff cuts had indeed allowed imports to hurt the domestic industry. This escape clause investigation produced little. After months of inquiry, the ITC was evenly divided on whether the industry was being injured by imports. Under the laws then in effect, a split decision meant the President was not required to do anything, which was exactly the course he chose.[17]

The President's inaction surprised and upset the footwear industry, and unwittingly goaded it into an increased number of diversified activities to realize its demands. In addition to its efforts to shape trade legislation in Congress in the early 1970s, the industry filed a large number of countervailing duty complaints against various foreign manufacturers, including the Taiwanese, South Koreans, Brazilians, Spanish, and Argentineans. After months of investigation and no final determination, the footwear industry, through the American Footwear Industry Association (AFIA), decided to sue the U.S. government over the delay. Just prior to the lawsuit's resolution, however, the Treasury Department announced countervailing duties against Brazil, Spain, and Argentina.[18]

The imposition of these duties and the pressure exerted by the U.S. government to get Italy to "organize" its shoe exports to the United States met only a small part of the footwear industry's demands for import relief.[19] In 1975, the industry was once again pressing for escape clause action. In this petition the industry revealed its preference for global relief, calling for a stringent tariff-rate quota based on very low import levels. With new procedures for U.S. trade law by then in place, the ITC quickly investigated. Despite finding unanimously that imports had injured the industry, it remained divided in its recommendations for action. The case was sent to the President, who was authorized to make a final decision on the form of relief granted. The footwear industry expended substantial effort lobbying groups within the executive branch in order to affect the decision. President Gerald R. Ford, with the support of the office of the Special Trade Representative (STR), and the Treasury and State departments, refused to grant the industry the aid it desired; instead, he authorized only trade adjustment assistance to workers and the monitoring of footwear imports.[20]

This denial of relief prompted the industry to turn to Congress. Using their leverage as "important constituents," especially of various northeastern legislators, footwear manufacturers pressed the Senate Finance Committee to have the ITC begin a new escape clause investigation. This petition, initiated in 1976, was similar to the preceding one. The ITC investigation, in fact, produced almost the same conclu-

[15] Judith Goldstein, unpublished data, used in her "Reexamination of U.S. Commercial Policy."

[16] Ibid.

[17] Yoffie, "Adjustment in the Footwear Industry," p. 353; David Yoffie, *Power and Protectionism* (New York: Columbia University Press, 1983), p. 172; Porter, *Presidential Decision-Making*, p. 159; AFIA interviews

[18] Porter, *Presidential Decision-Making*, pp. 159, 163; U.S. ITC, *Footwear Investigation*, no. 758, 1977, p. A-3; AFIA interviews; Ralph Oman, "The Clandestine Negotiation of Voluntary Restraints on Shoes from Italy," *Cornell International Law Journal* 6, no. 7 (1974): 6-11.

[19] Oman, "Clandestine Negotiation of Restraints," pp. 6-19, AFIA interviews.

[20] Porter, *Presidential Decision-Making*, ch. 5; AFIA interviews; Yoffie, "Adjustment in the Footwear Industry," pp. 336-38; U.S. ITC, *Footwear Investigation*, no. 758, 1976.

sions as before—a unanimous finding of injury from imports and a split decision on recommendations for relief. This time the case was sent to President Jimmy Carter. Though the industry's preference for a stringent, global tariff-rate quota persisted, negotiations between the industry and the administration, in particular, with Robert Strauss in the STR office, resulted in agreement on a less restrictive and yet global formula for relief. Carter decided to limit imports of shoes by negotiating orderly marketing agreements (OMAS) with two key importers, South Korea and Taiwan. In addition, the footwear industry claims, Strauss agreed to ensure that limits (or "caps") were negotiated on both exports to the United States from other countries and exports of close substitutes for the nonrubber footwear controlled in the OMAS. These promises, intended to prevent circumvention of the OMAS, were never acted upon by the administration. Thus, the limits imposed by the OMAS were avoided by the exporting firms. Although import rates slowed during the OMAS' four years, the footwear industry did not obtain the degree of protection it initially desired.[21]

More recent petitions to the ITC by the industry have also failed. In 1981 President Ronald Reagan rejected the industry's petition for extension of the OMAS; all import relief was terminated in June of that year. The industry's allegations of unfair trading practices against a number of developing countries were formalized in an ITC petition in 1982, which was subsequently dismissed. In January 1984, the industry filed its fourth major escape clause action, once again seeking heightened tariffs on all footwear imports.[22]

During the 1970s, the industry expended a great deal of effort not only to obtain import relief through the ITC, but also to shape congressional legislation on trade issues. Each time a trade bill was considered, the industry lobbied and testified. Its efforts were especially intense in the early part of the decade, when various trade bills enabling the President to negotiate reductions in tariff and nontariff barriers were under consideration, and in the late 1970s and early 1980s, when the industry organized a congressional caucus.

In the early 1970s, the industry lobbied to ensure that shoes would be treated specially in any multilateral negotiations to reduce tariffs

[21] Yoffie, "Adjustment in the Footwear Industry," pp. 338-46; Yoffie, *Power and Protectionism*, pp. 176-94; David Broder, "The Case of the Missing Shoe-Import Option," *Washington Post*, July 23, 1977; AFIA interviews; U.S. ITC, *Footwear Investigation*, no. 799, 1977.

[22] Christopher Madison, "The Troubled U.S. Footwear Industry Is Kicking for Relief from Imports," *National Journal*, February 5, 1983, pp. 283-85; AFIA interviews; AFIA, "Petition for Relief from Imports of Nonrubber Footwear under Section 201 of the Trade Act of 1974" (Washington, D.C.: AFIA, 1984).

and that the U.S. trade laws would be rewritten so that the costs of seeking import relief would be reduced. In 1970 and 1971, the shoe industry worked to obtain promises of quotas in the legislation on trade reform. In the Trade Bill of 1971, known as the Mills Bill, the House Ways and Means Committee drafted legislation granting import quotas to shoes as well as to textiles and apparel. Footwear would thus have obtained the special status that textiles and apparel had in their exemption from multilateral tariff-cutting negotiations,[23] but this never occurred. The initiation of the escape clause action by President Nixon in 1971 alleviated pressure on Congress to devise its own aid for the footwear industry. Moreover, the demise of the Mills Bill in the Senate meant that nothing was done for shoes.[24]

During consideration of a new trade reform bill in 1973 and 1974, the footwear industry continued to prefer exemption from the tariff-reduction negotiations and the development instead of a program of import controls similar to those on textiles and apparel in the Multifiber Agreement. The industry's efforts to realize this goal were largely fruitless.[25] But pressure from the footwear manufacturers, as well as from other industries, did help change U.S. trade laws. The alternatives to the existing laws favored by the industry included easing the conditions required for finding import injury in escape clause cases, forcing the President to act on cases where injury was found but relief recommendations were divided, providing congressional review of these presidential decisions, and placing time limits on investigations of trade petitions.[26] Many of these changes were adopted in the Trade Act of 1974. This act also contained three amendments designed specifically to help the industry by Senators from the shoe-sensitive New England area. These excluded certain footwear from GSP status, authorized presidential negotiations of special trade agreements on footwear, and forced the Treasury Department to impose countervailing duties on footwear if investigations showed such violations to be occurring.[27] These actions did not give footwear the special status it desired but did lean in that direction.

[23] Yoffie, "Adjustment in the Footwear Industry," p. 335; Oman, "Clandestine Negotiation of Restraints," pp. 6-10; I. M. Destler, *Making Foreign Economic Policy* (Washington, D.C.: Brookings Institution, 1980), p. 187; AFIA interviews.

[24] Ibid.

[25] Destler, *Making Foreign Economic Policy*, pp. 187-89; AFIA interviews.

[26] AFIA interviews.

[27] Destler, *Making Foreign Economic Policy*, pp. 187-89, AFIA interviews; House, Ways and Means Committee, *Trade Reform*, hearings, 93rd Cong., 1st sess., May 1973, pt. 1. GSP (Generalized System of Preferences) is a system by which developing countries can get preferential access to the markets of developed countries.

The next burst of congressional activity by the footwear industry occurred in the late 1970s. In 1979 the industry's pressure once again helped to generate changes in U.S. trade laws, which reduced the costs of gaining import relief. These revisions included shifting authority over antidumping and countervailing duty investigations from the Treasury Department to the Commerce Department, one more friendly to domestic industry.[28] The footwear industry also used its industry sector advisory committee in the Tokyo Round negotiations of the GATT to ensure that any tariff cuts on its products were minimal and reciprocal.[29] The industry also developed a formal congressional footwear caucus, comprised of Senate and House members sympathetic to the industry's demands. This caucus was used to ensure that proposals opposed by the industry were not included in the Trade Act of 1979. Today it provides a major source of pressure on the ITC and STR, and thus on the President, to take heed of the footwear industry's demands for import relief.[30]

We have seen that the U.S. footwear industry, beginning in 1970, worked through numerous channels in its mounting efforts to realize its objective of global relief from import competition. As a cohesive political force, the industry was increasingly determined in its efforts as imports surged and economic decline accelerated. Politically, the industry was organized into two opposing associations. U.S. manufacturers of shoes operated through the American Footwear Industry Association, which was the central force behind the industry's ITC petitions and its congressional lobbying. In fact, the AFIA did little in the 1970s besides pursuing the industry's desire for import relief. The problems posed by foreign competition were clearly its primary preoccupation over the decade.[31]

The AFIA's decision making on trade policy revealed a domestically oriented industry, fairly united in its desire for import protection. Participants in this decision making report that few, if any, divisions arose over the association's pursuit of import relief. Unanimous sentiment for such action among the association's members, which included all the major U.S. manufacturers, is claimed.[32] One association official

[28] Senate, Finance Committee, Subcommittee on International Trade, *Private Advisory Committee Reports on the Tokyo Round of the MTN*, hearings, 96th Cong., 1st sess., 1979, ISAC 9, pp. 164-80; AFIA interviews.

[29] Senate, *Private Advisory Committee Reports*, pp. 164-66.

[30] AFIA, *Petition for Relief*; Madison, "Troubled U.S. Footwear Industry"; AFIA interviews.

[31] Madison, "Troubled U.S. Footwear Industry", AFIA interviews.

[32] AFIA interviews; Yoffie, "Adjustment in the Footwear Industry," pp. 327-35; Yoffie,

said, "It's easy to form policy in this industry because all the manufacturers make most of their profits and have most of their capital invested in the US market; so they know they have to protect that market first."[33]

The industry's unity and preference for import relief was thus related to its industrial structure. That few firms exported shoes, that most foreign markets were closed to U.S. footwear exports, and that few of the firms were multinational meant that the domestic market alone was of crucial importance. The weakness of these ties to the international economy fostered protectionist sentiment, which in turn inhibited the development of international ties.[34]

The primary opposition to the AFIA was led by shoe importers and retailers in the United States, organized in the Volume Footwear Retailers' Association (VFRA) Representing large importers like Matsushita and retailers such as Sears Roebuck, the VFRA consistently opposed the AFIA's attempts to obtain escape clause relief. The VFRA testified against the AFIA in ITC investigations and in congressional hearings.[35] The VFRA's opposition to restrictions on imports resulted from its members' ties to the international economy. As large-volume footwear importers, these firms did not want their supplies reduced and/or prices increased, which would be the likely effect of increased trade barriers. The VFRA was increasingly supported by a group of firms that were also members of the AFIA after the late 1970s. In the 1980s, large firms reduced manufacturing capacity in the United States and moved offshore, either manufacturing or simply importing. This movement abroad prompted changes in their political interests and activities. Many resigned from the AFIA and became active in the VFRA, thus be-

Power and Protectionism, p. 173, has suggested greater fragmentation of interests within the industry. He points out that a small core of large firms in the shoe business were extremely profitable in the 1970s and thus had little interest in the trade issue. These firms paid relatively small dues to the AFIA and lent little support to its political activities. The fact that the largest U.S. manufacturer, the Brown Shoe Company, testified on its own several times for escape-clause relief in the mid-1970s, however, challenges this claim.

[33] AFIA interview.

[34] AFIA interviews. One example of this latter phenomena occurred the late 1970s At this time, several footwear manufacturers attempted to move production offshore, thus reducing costs by importing cheaper nonrubber shoe uppers for inclusion in their complete shoes. This move was vigorously opposed by the AFIA and by some of its members, who in return sought to have the imported uppers classified and taxed under the much greater tariff duty for complete shoes. Although hindered by this controversy, the offshore operations have continued.

[35] AFIA interviews; Madison, "Troubled U.S. Footwear Industry."

coming opponents of import barriers.[36] Indeed, the growing divergence of these large firms' interests from the AFIA's position was a critical factor enabling President Reagan to deny import relief to the industry in 1981.[37] Thus, it appears that firms chose between the two associations according in part to their degree of integration into the international economy. Those producing or buying abroad joined the VFRA and resisted efforts to close the U.S. market; those whose investment lay primarily in U.S. manufacturing facilities sided with the AFIA and perceived closure of the market as their only means of survival.

Although divisions within the footwear industry became increasingly evident after the late 1970s, the majority of U.S. footwear manufacturers sided with the AFIA. This group spent much time and money trying to secure relief from foreign competition in all political arenas. The AFIA sought global protection against imports. It resisted reductions in its tariff levels and pressed for strict tariff-rate quotas on all imports. Furthermore, its preference for a closed American shoe market grew stronger throughout the decade and prompted increased activity toward this end. As imports surged between 1968 and 1976, the industry devoted more and more resources to this political battle. Overall, the industry's strong preference for protection of its home market resulted from its manufacturers' dependence upon this home market and their lack of ties to the international economy.

Case 2: Machine Tools

The U.S. machine tool industry experienced rising economic difficulties during the 1970s.[38] From a strong, if not preeminent, international position in the 1960s, the industry lost its comparative advantage. In its higher technology product lines, the industry was challenged by West German, and was later overtaken by Japanese, makers of machine tools.[39] In its older, more standardized products, various newly industrializing countries (NICS) captured world market shares from the U.S. firms.[40] The U.S. industry began losing both world and domestic market shares to these foreign competitors: imports as a percentage of domestic consumption doubled between 1970 and 1977, while the U.S. share of world exports fell from 23 percent in 1964 to

[36] Interviews at AFIA and EC; see examples cited in note 11 above.

[37] Interview at EC.

[38] The study involves only the metal-cutting sector of the machine tool industry (SIC 3541).

[39] *Business Week*, October 5, 1981, pp. 26-27; Fong, "Export Dependence," pp. 134-35, 180-85; *Business Week*, September 1, 1980, pp. 68-70.

[40] *Business Week*, February 5, 1979, pp. 25-26.

7 percent in 1977.[41] From its long-standing position as a net exporter, the U.S. industry was reduced to a net importer by 1977.[42] This loss of world leadership in technology and export performance was a central indicator of the industry's fundamental economic problems.

Signs of the industry's economic distress were widespread in the 1970s. Declining employment and profitability showed the deceleration of growth from the 1960s.[43] In addition, the number of firms in the industry dropped from the late 1960s to the mid-1970s.[44] Employment, profitability, and the number of firms all moved cyclically over the 1970s, but they generally closed the decade at a lower level than they started it.

The U.S. machine tool industry also encountered an import invasion during the 1970s. Imports surged from $126.1 million in 1970 to $1,027.6 million in 1979.[45] Import penetration rose from 7 percent to 14 percent between 1970 and 1977, increasing at an average of 3 percent annually over the period.[46] After 1977, import penetration continued rising at a rapid rate, reaching 27 percent by 1981 and 45 percent by 1985.[47] Within the industry, it was imports of lathes and machining centers that grew the most.[48]

The production of U.S. machine tools was a Type II industry throughout most of the 1970s. It had a strong export position and a small multinational position. After 1977, however, it was moving from Type II toward Type I—becoming a much more domestically oriented industry. By the early 1980s, its multinationality was receding, and its exports had fallen.[49]

[41] U.S. Dept. of Commerce, *U.S. Commodity Exports and Imports, 1976/75*, and *1977/76*; *The Competitive Status of the U.S. Machine Tool Industry* (Washington, D.C.: National Academy Press, 1983), pp. 8-9.

[42] Ibid.

[43] U.S. Dept. of Commerce, *Census, 1972* (Washington, D.C.: GPO, 1976); National Machine Tool Builders' Association (NMTBA), *Economic Handbook of the Machine Tool Industry* (Washington, D.C.: NMTBA, 1982), p. 63; Fong, "Export Dependence," p. 186; *Competitive Status*, pp. 21-23.

[44] U.S. Dept. of Commerce, *Census, 1972* and *1979*; NMTBA, *Economic Handbook*, pp. 62-63.

[45] NMTBA, *Economic Handbook*, p. 146.

[46] U.S. Dept. of Commerce, *U.S. Commodity Exports and Imports, 1976/75* and *1977/76*

[47] *NYT*, February 3, 1986, p. D-2.

[48] NMTBA, *Economic Handbook*, pp. 146-54.

[49] The aggregate data from the U.S. Dept. of Commerce in *1972* and *1977 Enterprise Statistics* and in *U.S. Direct Investment Abroad—1977* (Washington, D.C.: GPO, 1981) all point to this conclusion, as did the NMTBA interviews. Firm-level data in Fong, "Export Dependence," and *Competitive Status* on firms or samples of the industry as well as evidence in *The American Machinist*, for the late 1970s and early 1980s, point to this conclusion.

The industry's international trade position was favorable during most of the 1970s, although this changed after 1977. The industry's net trade balance was positive, but decreasingly so, until 1977. It began the decade with a $142.1 million trade surplus, which turned into a deficit of $90.6 million in 1977.[50] The industry's export position remained strong throughout much of the 1970s. Exports as a percentage of domestic production of machine tools reached a relatively high 17 percent in 1970.[51] This percentage fell over the decade, slipping to 12 percent in 1977.[52] The machine tool sector's positive net trade balance and strong export position therefore mark it as a Type II industry in the 1970s, although moving toward Type I.

The industry had an average foreign investment position and a small but increasing amount of multinational-related trade. The direct foreign investment of the whole machinery sector was $519 million in 1977, $704 million in 1979, and $862 million in 1981.[53] As a proportion of total industry assets, the foreign investment of the industry was 12 percent in 1972, rising to 16 percent in 1977.[54] Earnings for the industry's foreign subsidiaries, as well as their return on capital, rose slightly.[55] The value of foreign trade conducted by the U.S. machine

[50] U.S. Dept. of Commerce, *U.S. Commodity Exports and Imports, 1976/75* and *1977/76*. These figures give an accurate picture of its trade balance since trade for TSUS items 806.30 and 807.00 was negligible, at least until 1978. See U.S. ITC, *Economic Factors Affecting the Use of Items 807.00 and 806.30 of the Tariff Schedules of the U.S.*, pub. no. 339, September 1970; U.S. ITC, *Import Trends in TSUS Items 806.30 and 807.00*, pub. no. 1029, January 1980; and U.S. ITC, *Tariff Items 806.30 and 807.00, US Imports for Consumption, Specified Years, 1966-79*, misc. pub., June 1980.

[51] U.S. Dept. of Commerce, *U.S. Commodity Exports and Imports, 1976/75* and *1977/76*.

[52] Ibid.

[53] See note 49; these aggregate-level data are for the entire nonelectrical machinery industry (three-digit SIC level) and thus should be used cautiously, since they differ substantially from just the metal-cutting machine tool sector. See also U.S. Dept. of Commerce, Bureau of Economic Analysis, unpublished data printout, 1984.

[54] U.S. Dept. of Commerce, *1972* and *1977 Enterprise Statistics*. Other data show a larger figure, about 36 percent of all corporate assets; see Internal Revenue Service (IRS), *Statistics of Income—1974-78, International Income and Taxes, U.S. Corporations and Their Controlled Foreign Corporations* (Washington, D.C.: GPO, 1981). Though these data suggest a sizable multinational position, other sources focusing more narrowly on only the metal-cutting machine tool sector yield much smaller estimates. For instance, data for five of the largest firms in the sector reveal in 1978 an average of 14.8 percent for their foreign assets compared to total assets, a figure about half that reported in some of the aggregate data. See Fong, "Export Dependence," p. 176.

[55] U.S. Dept. of Commerce, Bureau of Economic Analysis, unpublished data printout, 1984; U.S. Dept. of Commerce, Bureau of Economic Analysis, *U.S. Direct Investment Abroad, 1966* (Washington, D.C.: GPO, n.d.) and *U.S. Direct Investment Abroad, 1977*. Other sources differ on the direction of change in this sector's multinational position. At

tool multinationals was small but increasing.[56] Foreign operations of the U.S. machinery group were not geared to supplying the U.S. market; they were largely used to service the markets in which they operated. The sector's foreign investment position was thus not that sizable in the 1970s. Overall, its export dependence was more significant than its multinational operations, again making it a Type II industry before 1978.

Several other points should be noted. First, the industry was relatively unconcentrated. It was composed of over five hundred firms, although its leading eight firms accounted for 47 percent of its production.[57] The industry was homogeneous, with trade relations spread among many of its firms. Second, the U.S. machine tool builders were the earliest developers of the industry's leading technology, termed numerical control (NC). The U.S. firms introduced NC machines in the mid-1950s, but they did not sell widely until the 1970s.[58] By the mid-1970s, however, the U.S. industry had lost its technological advantage. Computer-controlled NC technology (CNC) had become the leader, and Japan was overtaking the United States in this area. By the early 1980s, the Japanese were recognized as the leaders in CNC technology.[59] This rapid loss of U.S. technological superiority helped explain the industry's quick transition from a dynamic exporter in the early 1970s to a more senescent, domestically oriented industry by the early 1980s.

The Dependent Variable

Throughout most of the 1970s, the U.S. machine tool industry displayed a strong preference for open world markets. Both the indus-

least three different sources maintain that the machine tool sector's multinationality began declining, not increasing, in the late 1970s. These sources, however, focus mainly on the late 1970s and early 1980s, and not as much on the period from 1970 to 1977, which is covered by the aggregate figures. See Fong, "Export Dependence," pp. 174-76. *The American Machinist*, various issues in 1978; U.S. ITC, *Competitive Assessment of the U.S. Metal-Working Machine Tool Industry*, investigation no. 332-149, pub. no. 1428, September 1983; OECD, *Technical Change and Economic Policy: The Machine Tool Industry* (Paris: OECD, 1980), pp. 63-64. See also note 49.

[56] U.S. Dept. of Commerce, *U.S. Direct Investment Abroad, 1966* and *1977*. The only data on re-export activity to the United States at the four-digit SIC level suggest a low but increasing amount of this trade; re-export relative to total imports was 6.1 percent in 1966 and 8.9 percent in 1977, according to Réal Lavergne, unpublished data, 1981, used in Lavergne, *Political Economy of U.S. Tariffs*.

[57] Fong, "Export Dependence," pp. 120-21; *Competitive Status*, pp. 16-18.

[58] Fong, "Export Dependence," pp. 122-26; *Competitive Status*, pp. 24-26

[59] Fong, "Export Dependence," pp. 122-27, 180-83; U.S. ITC, *Competitive Assessment*, pub. no. 1428; *Competitive Status*, pp. 10, 30-34, 51-53; OECD, *Technical Change*, pp. 3-4.

try's public statements and trade policy activities reflected this. For instance, the industry, while pressing for greater export aid from the U.S. government and refraining from lodging formal complaints about imports, supported the Trade Act of 1974 and the resultant Tokyo Round negotiations' tariff reductions. Despite the industry's rising import penetration levels and other economic difficulties, it did not seek import relief in the 1970s. This would be expected from a Type II industry like machine tools. Because of their sizable dependence on foreign markets for exports, machine tool firms were cautious in demanding protection from imports. For them, closure of the U.S. market would hurt more than it would help, since it would probably lead to foreign retaliation and the loss of export sales.

Nonetheless, the industry's preference for free trade in the 1970s may seem a surprising contrast to its earlier preference for protection from import competition. During much of the 1960s, the machine tool builders had opposed trade liberalization of any sort and at times had sought heightened protection through new import surcharges.[60] In this period, however, when it voiced protectionist sentiment (though it took little action to realize this goal), the industry was under much less pressure from imports than in the 1970s, when foreign competition was more threatening.

In the 1970s, the machine tool builders were more politically active on trade issues than earlier. However, the industry's main political arena was Congress, not the executive branch; and its main trade concern was export promotion, not import competition.[61] Throughout the decade, the industry focused most of its political efforts pressing Congress to pass legislation that would aid its exports. The machine tool builders saw exports as critical for two reasons. First, foreign markets for exports were their largest potential and fastest growing markets.[62] Second, export sales provided a way to counterbalance the extreme cyclicality of the domestic market.[63] Since foreign demand tended to rise and fall countercyclically to U.S. demand, exports helped minimize the fluctuations in the industry's domestic performance.

The industry's testimony in Congress was devoted disproportionately to two export issues: East-West trade restrictions and export fi-

60 Fong, "Export Dependence," pp. 163-66.
61 NMTBA interview; Fong, "Export Dependence," pp. 212-16.
62 NMTBA interview; *American Machinist*, 1977 and 1978; Fong, "Export Dependence," pp. 209-216.
63 Fong, "Export Dependence," pp. 209-216, esp. p. 215; *Industry Week*, 1978 and 1977; *Competitive Status*, p. 40; NMTBA interview.

nancing.[64] East-West trade was important because the Communist, Eastern bloc countries were among the largest and most eager consumers of imported machine tools. Emerging from the Cold War period, the U.S. government had retained stringent restrictions on all high technology and national security–related exports to these Communist countries. In 1970 all machine tool exports to them were controlled.[65] The U.S. machine tool builders for the most part opposed this and claimed that, because all other Western bloc states had much less stringent restrictions, the Communist countries obtained the restricted items anyway.[66] The U.S. industry wanted to participate in this burgeoning export trade. Thus, it lobbied to have most favored nation (MFN) status conferred upon the Soviet Union, to have lists of restricted export products (both U.S. and COCOM lists) reduced, and to obtain export financing for sales to the Eastern bloc.[67]

This activity was successful in the early 1970s. The U.S. list of restricted machine tool products was cut in half, and trade with the Soviet Union surged.[68] In 1970, U.S. exports of machine tools to the Soviet Union were valued at $6 million; in 1975 they reached $90 million.[69] The Soviet Union had become one of the three primary export markets for the U.S. industry. With passage of the Jackson-Vanik Amendment in the Trade Act of 1974, however, the industry's export strategy toward the Communist countries ran into trouble. This amendment made MFN status for the Communist countries conditional on their emigration policies and effectively denied MFN status to the Soviet Union.[70] The amendment's effects on the industry were first felt in 1976, when U.S. exports to the Soviet Union dropped to $48 million.[71] The machine tool builders had worked hard to obtain greater access to these foreign markets. Their inability to increase exports to them after 1976 produced new concerns over import penetration in the United States.[72]

64 NMTBA interview; Fong, "Export Dependence," pp. 212-16, 224-29.
65 NMTBA interview; Fong, "Export Dependence," p. 210.
66 NMTBA interview; House, Ways and Means Committee, Subcommittee on Trade, *Causes and Consequences of the U.S. Trade Deficit and Developing Problems in U.S. Exports*, hearings for November 3-4, 1973, 95th Cong., 1st sess., 1977; *Competitive Status*, pp. [illegible]1-42.
67 Ibid.; Fong, "Export Dependence," pp. 209-211.
68 Fong, "Export Dependence," p. 211.
69 House, Ways and Means, *Causes of the Trade Deficit*, p. 411.
70 Destler, *Making Foreign Economic Policy*, pp. 161-62; Fong, "Export Dependence," pp. 247-49; *Competitive Status*, p. 42.
71 House, Ways and Means, *Causes of the Trade Deficit*, p. 411; Fong, "Export Dependence," pp. 247-49.
72 NMTBA interview.

The other issue on which the industry pressed Congress involved export financing. The machine tool builders wanted Congress not only to continue programs that helped finance exports but also to expand these programs. The industry pushed for continuation and expansion of the foreign tax credit, the Domestic International Sales Corporation, Export-Import Bank financing, and other governmental programs to enhance U.S. export sales.[73] The industry's pressure for these export promotion devices was extensive and fairly successful. All of the programs were continued, and some were expanded. Although the machine tool builders did not obtain all the export aid they desired, their active interest in export promotion programs was apparent.

When the industry concerned itself with legislation relating to import problems in the 1970s, its position favored open world markets. In the early 1970s, it supported the Trade Act of 1974, which granted the President authority to cut tariffs in the multilateral trade negotiations.[74] It also opposed the earlier and more protectionist Mills Trade Bill of 1971 and the Burke-Hartke Trade Bill.[75] An industry spokesman said in 1973, "While the NMTBA is concerned over the inroads into the U.S. market by foreign competition. . . . it believes that in the long run *free trade*—assuming reciprocity, fair trading practices on all sides, and adequate governmental authority to deal with emergency situations—is both inevitable and desirable."[76] The machine tool builders maintained this preference throughout the 1970s. The industry approved of the Tokyo Round negotiations of 1979, and supported the tariff reductions and nontariff barrier codes.[77] Thus, in its most active political arena—the U.S. Congress—the machine tool industry supported trade liberalization, but focused its energy on export promotion.

During the 1970s, the industry rarely resorted to use of the U.S. trade laws to contain foreign competition. Only in 1977 did it consider filing a serious petition.[78] This marked the start of the industry's turn

73 Ibid.; Fong, "Export Dependence," pp. 222-28; House, Ways and Means, *Trade Reform*, pt. 3, pp. 1505-1507.

74 NMTBA interview; Fong, "Export Dependence," pp. 219-22.

75 Fong, "Export Dependence," p. 217; NMTBA interview.

76 House, Ways and Means, *Trade Reform*, p. 803. Emphasis added.

77 Senate, Finance, *Private Advisory Committee Reports*, ISAC 17, August 1979, pp. 315-33; Fong, "Export Dependence," pp. 168-69.

78 Judith Goldstein, unpublished data, used in "Reexamination of U.S. Commercial Policy"; NMTBA interview.

away from free trade, as it began complaining about Japanese firms' tactics.

In late 1977, during congressional hearings on the causes of the U.S. trade deficit, the U.S. machine tool builders began voicing complaints about Japanese imports. These objections concerned dumping and subsidization of exports to the United States by Japanese firms. The U.S. manufacturers charged that the Japanese were using unfair trading practices to seize U.S. market shares.[79]

At the urging of the chairman of the congressional Committee on Ways and Means, the industry decided to file a formal complaint with the ITC.[80] This unfair trade petition was never actually filed. The industry's political association, the National Machine Tool Builders' Association (NMTBA), publicly announced its intention to form a committee to develop antidumping charges against the Japanese in December 1977.[81] The Japanese responded immediately to this threat. They announced price increases on their machine tool exports to the United States and a government plan to "screen" machine tool export levels.[82] The U.S. industry then charged the Japanese with reactivating their machine tool cartel in order to undercut the U.S. builders' complaints.[83] Just as the NMTBA was preparing to file its charges with the ITC, however, the U.S. Justice Department began antitrust proceedings against the NMTBA, subpoenaing and impounding all of its documents. The Justice Department maintained that the NMTBA was acting collusively with the Japanese, seeking to control imports in order to raise machine tool prices.[84] This antitrust proceeding ended the industry's attempts to file its unfair trade petition. For the next two and a half years, it battled the Justice Department instead of its import problems.[85]

After termination of the Justice Department investigation in 1981, the machine tool builders returned to their concerns with Japanese imports. This time, however, the industry chose not to involve the NMTBA. Instead, a single firm, Houdaille Industries, decided to take action. With the support of the U.S. Special Trade Representative,

79 House, Ways and Means, *Causes of the Trade Deficit*, pp. 382-438.

80 Ibid., p. 393; Fong, "Export Dependence," p. 170; NMTBA interview.

81 *American Machinist*, January 1978, p. 5; NMTBA interview.

82 *American Machinist*, January 1978, p. 45, and May 1978, p. 45; Fong, "Export Dependence," p. 171.

83 *American Machinist*, May 1978, pp. 5, 15; NMTBA interview; Fong, "Export Dependence," pp. 171-72.

84 NMTBA interview; Fong, "Export Dependence," pp. 171-72.

85 Ibid.

Houdaille filed its complaint against the Japanese in May 1982. Charging that the Japanese were employing all sorts of unfair trading practices to "target" the U.S. market. Houdaille requested that the President respond by denying all purchasers of Japanese machine tools a tax credit for this investment.[86] Although innovative, Houdaille's petition was rejected in April 1983.[87]

Finally, in March 1983, the NMTBA filed its own complaint with the ITC. This time the industry was demanding global import relief in the form of a quota limiting imports to 17.5 percent of domestic consumption, and no longer simply selective relief from the Japanese threat.[88] The NMTBA filed its charges under the national security provision of U.S. trade law (section 232), which allows the President to impose restrictions on products vital to the national security of the country. Angry because machine tool exports had been controlled in the 1970s due to their "national security implications," the industry was trying now to use the government's own arguments to obtain import relief.[89] This petition demonstrated the industry's departure from a free trade position, which was not unexpected, given its deteriorating international trade position.

The political divisions among U.S. machine tool manufacturers in the 1970s were minimal, or at least highly obscure. Despite the large number of firms and their diverse economic situations, few internal divisions over trade issues surfaced.[90] In part, the builders' similar ties to the international economy—i.e., their high levels of exports and low multinationality—accounted for this lack of division. But it also stemmed from the NMTBA, their well-established political association. Created in 1902, the NMTBA had long organized cooperation among the industry's firms in order to prevent, or mitigate, its cyclical behavior.[91] The NMTBA represented over four hundred firms, 90 percent of the industry. Its policy-making procedures appeared open and fair;

[86] NMTBA interview; Houdaille Industries, "Petition to the President of the U.S. through the U.S. STR for the Exercise of Presidential Discretion Authorized by Section 103 of the Revenue Act of 1971," May 1982.

[87] NMTBA interview; U.S. ITC, *Competitive Assessment*, pub. no. 1428, p. 35.

[88] NMTBA, "Summary of the NMTBA's Section 232 Petition," October 1983; *NYT*, July 5, 1983, p. D-2; NMTBA interview; U.S. ITC, *Competitive Assessment*, pub. no. 1428, p. 35.

[89] NMTBA interview. Protection was eventually given to the industry through the negotiation of voluntary export restraint accords in 1986; see *Wall Street Journal*, November 20, 1986, November 21, 1986, November 24, 1986, and December 17, 1986; *NYT*, December 17, 1986.

[90] NMTBA interview.

[91] Harless Wagoner, *The U.S. Machine Tool Industry from 1900 to 1950* (Cambridge: MIT Press, 1968), p. 74; NMTBA interview; Fong, "Export Dependence," pp. 159-62.

and consensus building seemed essential.[92] Its policy-making bodies tended to include spokesmen for all segments of the industry, thus suggesting its positions were representative of the entire industry's preferences.[93] In general, the NMTBA was able to present a unified industry position on trade issues in the 1970s.

The NMTBA's expressed preference for free trade and its activities in support of exports and trade liberalization in the 1970s seem to have represented a consensus position. In any case, no machine tool firm spoke out against the NMTBA's position. The only individual effort by a machine tool builder was the 1982 trade petition by Houdaille Industries. Although this firm was less multinational than other large firms in the industry and thus perhaps more likely to take action against imports, its petition was evidently supported by much of the industry.[94] Because it was worried about renewed Justice Department antitrust action if it tried to collect the data necessary for the suit and because the suit was focused on a few narrow product lines, the NMTBA refrained from involving itself in the Houdaille case, even though it tacitly supported the action.[95] Furthermore, the association had its own petition to file, which demanded global relief and was supposedly supported by "every single firm in the industry."[96]

The trade policy preferences of the U.S. machine tool industry were focused on freer trade and export promotion during the 1970s. Much as one would expect of a Type II industry, the machine tool builders were most concerned with access to foreign markets and were willing to open their home market up in return for greater access abroad. The industry acted upon these preferences and resisted the pressures for protectionism emanating from its economic difficulties and rising imports during much of the 1970s. By 1978, however, changes in the machine tool builders' economic situation were registered in their trade policy preferences. As their ties to the international economy weakened and their competitive advantage—in the form of a superior technology—eroded, the industry embarked on a more protectionist course, turning away from its support of trade liberalization and its concerns with exports. The machine tool industry's attempts to obtain import relief in the early 1980s were a manifestation of its weakened international economic ties.

[92] NMTBA interview; Fong, "Export Dependence," pp. 160-62.

[93] NMTBA interview.

[94] Ibid.

[95] Ibid.

[96] Ibid.

Case 3: Semiconductors

The U.S. semiconductor industry had grown throughout the 1950s and 1960s, but the 1970s, in contrast, was a turbulent economic period. Foreign competition, especially from Japan, eroded the U.S. industry's hold over both its own and world markets: import penetration in the United States surged, and the U.S. share of world semiconductor exports fell by over 12 percent.[97] Direct foreign investment in the United States also skyrocketed from a mere $4.7 million in 1975 to $515.3 million in 1979.[98] Most of this investment was by large West European electronics companies, who acquired smaller U.S. semiconductor firms. Thus the U.S. industry faced a double challenge from foreign producers: rising import penetration by the Japanese and growing foreign investment by the West Europeans.

Far-reaching technological changes also swept the semiconductor industry. By the early 1970s, the industry had begun selling its third wave of new products: large-scale integrated circuits (LSI).[99] This group of products was introduced even more rapidly than previous generations.[100] The accelerated development was largely due to the increased foreign competition. Japanese companies produced new versions of LSI circuits in quick succession, forcing the U.S. firms to behave similarly and thereby thrusting them into development of their fourth generation of products, the very large-scale integrated circuits (VLSI).[101] This rendered the industry increasingly volatile.

The economic distress in the U.S. semiconductor industry caused by these challenges was highly cyclical. Problems were worst in the periods from 1969 to 1972, from 1974 to 1976, and from 1978 to 1983. Reversing its steadily increasing trend, employment in semiconductor

[97] This case covers semiconductors as defined in SIC code 3674. U.S. Dept. of Commerce, International Trade Administration (ITA), *An Assessment of the Competitiveness in U.S. High Technology Industries* (Washington, D.C.: GPO, February 1983), p. 45.

[98] U.S. ITC, *Competitive Factors Influencing World Trade in Integrated Circuits*, investigation no. 332-149, pub. no. 1013, November 1979, pp. 37-39.

[99] Y. S. Chang, *The Transfer of Technology: The Economics of Offshore Assembly*, UNITAR report no. 11 (New York: United Nations, 1971), pp. 5-7; U.S. Dept. of Commerce, *A Report on the U.S. Semiconductor Industry* (Washington, D.C.: Commerce Dept., 1979); Michael Borrus, James Millstein, and John Zysman, "Trade and Development in the U.S. Semiconductor Industry," in *American Industry in International Competition*, ed. Zysman and Tyson, pp. 153-66.

[100] John Tilton, *The International Diffusion of Technology: The Case of Semiconductors* (Washington, D.C.: Brookings Institution, 1971), pp. 19-48; Chang, *Transfer of Technology*, pp. 5-7.

[101] Borrus, Millstein, and Zysman, "Trade in the Semiconductor Industry," pp. 178-248.

production rose and fell throughout the 1970s.[102] Profitability was also volatile, falling between 1969 and 1972, between 1974 and 1975, and between 1978 and 1979.[103] Thus, while not a period of absolute secular decline for the industry, the 1970s were a time of increasing instability and severe cyclical distress.

Import penetration of the U.S. market rose on average between 3 and 4 percent per year from 1971 to 1977. From 9 percent of domestic supply in 1970, imports rose to 22 percent in 1977. In absolute terms, the value of imports surged from $167.7 million in 1970 to $1,349.8 million in 1977.[104] In addition to its economic difficulties, then, competition from imports grew constantly, making the industry a likely candidate to seek protection.

U.S. semiconductor production was a Type III industry in the 1970s. It had extensive multinational and intrafirm trading operations and substantial export activities. The industry's international trade position was mixed. Without adjusting for its own offshore assembly trade, the industry had a net trade deficit through much of the decade and a rising proportion of exports relative to domestic production.[105] Since offshore assembly trade was significant in this industry, however, these figures must be adjusted to eliminate double counting.[106] Making these adjustments reveals that over the decade the net trade balance in semiconductors was positive, although decreasingly so.[107] The industry's export position, after adjusting for offshore trade, also shows a steady decline. Exports as a percentage of domestic production fell from a high of 21.7 in 1970 to 19.5 in 1977 and to 17.2 in 1979.[108] Thus, the industry's international trade position over the 1970s, when adjusted for its offshore assembly operations, reveals a declining trade surplus and a strong but declining export position.

The industry had a substantial and growing foreign investment position in addition to a well-developed system of multinational trade, mostly in the form of offshore assembly. This direct foreign invest-

[102] U.S. Dept. of Commerce, *Census, 1972*, U.S. Dept. of Commerce, *1979 Annual Survey of Manufactures*; U.S. ITC, *Competitive Factors*.

[103] U.S. ITC, *Competitive Factors*, p. 33.

[104] U.S. Dept. of Commerce, *U.S. Commodity Exports and Imports 1976/75* and *1977/76*.

[105] Ibid.

[106] U.S. ITC, *Competitive Factors*, p. 16.

[107] Grunwald and Flamm, *Global Factory*, pp. 73-74, 108.

[108] U.S. Dept. of Commerce, *U.S. Commodity Exports and Imports 1976/75* and *1977/76*; Grunwald and Flamm, *Global Factory*, pp. 84, 108, for adjusted figures. *Without* the adjustments, exports of semiconductors as a percent of domestic production grew irregularly over the 1970s; the percentage increased from 26 in 1970 to 35 in 1974 and then dropped to 33 in 1977.

ment position grew during the 1970s, as did the magnitude of this foreign investment relative to the industry's total investment. For the electronic components sector, the proportion of foreign assets to total assets rose from 6 percent in 1972 to 24 percent in 1977, a very substantial figure.[109] In addition, the earnings of these foreign operations were healthy and important for the industry.[110] Trade related to the semiconductor industry's multinational operations also was sizable. Foreign subsidiaries produced substantial amounts for export. In 1977, these exports back to the United States accounted for 32.4 percent of foreign subsidiaries' total sales.[111] All told, the semiconductor industry had a substantial and growing multinational position and intrafirm trade network during the 1970s.

These extensive international ties, unevenly distributed in the industry, were concentrated among the largest eight or nine producers. Moreover, of the top eight firms in 1978, two of the largest were the most multinational: IBM and Texas Instruments. These two possessed widespread foreign production and intrafirm trading operations. Only they had plants operating in Japan.[112] The other leading producers—Motorola, Fairchild Camera, National Semiconductor, Intel, Mostek, and Advanced Micro Devices—were less involved in this internationalization of production, although they did possess some foreign operations.[113]

Two additional features of the industry should be noted. First, the nature of the industry's international ties was different from those of many other industries because semiconductor producers engaged heavily in offshore assembly operations, in which components fabri-

[109] U.S. Dept. of Commerce, *1972* and *1977 Enterprise Statistics*. IRS, *Statistics of Income—1974-78*, shows the total assets of U.S.-controlled foreign corporations as a percentage of their total U.S. parents' assets was even higher, 31.8 percent in 1974. This figure is for the two-digit SIC level, one larger than just the semiconductor industry.

[110] U.S. Dept. of Commerce, *U.S. Direct Investment Abroad—1966* and *U.S. Direct Investment Abroad—1977*. These data are suggestive, since the data for each period are at different levels of aggregation.

[111] Ibid. Similarly, their MOFA (majority-owned foreign affiliates') exports to the United States as a percentage of their MOFAs' total sales were 31.7 percent in 1977. Data at the four-digit SIC level indicate a very sizable increase in the value of U.S. foreign subsidiaries' exports to the United States as a percentage of total semiconductor imports over the 1970s. Rising from 38 percent in 1966, MOFA exports to the United States relative to total imports reached 86.8 percent in 1977. See Réal Lavergne, unpublished data, used in his *Political Economy of U.S. Tariffs*.

[112] *Electronic News* (hereafter *EN*), March 13, 1978, p. 66; *EN*, December 12, 1977, p. 6; Borrus, Millstein, and Zysman, "Trade in the Semiconductor Industry," p. 175; Semiconductor Industry Association (SIA) interviews.

[113] Ibid.

cated in the United States were exported to foreign subsidiaries for further processing and then returned to the United States for final assembly and/or sale. This worldwide integration of production differed from mere exporting or the establishment of foreign production facilities to service local or third-country markets. This trade tied firms tightly to the international economy and made them sensitive to trade barriers, since the heightening of these barriers could destroy their global network of production and sales.

Second, the U.S. semiconductor industry was relatively concentrated. Though populated by many firms, the largest four accounted for 41 percent of all domestic shipments in 1977, and the largest eight for 60 percent.[114] These firms were divided into two separate groups, which increased concentration within the industry. Among these top eight, the two largest IBM and Western Electric—were "captive" semiconductor producers, producing only for their own consumption and not for sale in the marketplace.[115] Captive production was common in the industry, accounting for over 50 percent of all domestic shipments.[116]

The noncaptive, or "merchant," U.S. producers of semiconductors were numerous but dominated by three or four firms, who controlled 60 percent of the shipments of merchant semiconductor devices.[117] The leading firms were Texas Instruments, Motorola, Fairchild Camera, and National Semiconductor. After these four were Intel, Mostek, and Advanced Micro Devices.[118] These top seven merchant producers were the domestic industry's economic and political leaders.

The Dependent Variable

During the 1970s, the trade policy preferences of the U.S. semiconductor industry were gradually shaped into explicit demands for greater openness of markets worldwide. Early in the decade, the in-

[114] U.S. Dept. of Commerce, *Concentration Ratios in Manufacturing* (Washington, D.C.: GPO, 1977); Chang, *Transfer of Technology*, pp. 11-12; Douglas Webbink, *The Semiconductor Industry: A Survey of Structure, Conduct, and Performance* (Washington, D.C.: FTC, 1977), pp. 18-28; Borrus, Millstein, and Zysman, "Trade in the Semiconductor Industry," pp. 157-63. The top eight U.S. producers in 1978 were IBM, Western Electric, Texas Instruments, Motorola, Fairchild Camera, National Semiconductor, Intel, and Mostek.

[115] Borrus, Millstein, and Zysman, "Trade in the Semiconductor Industry," pp. 150-67; U.S. ITC, *Competitive Factors*.

[116] U.S. ITC, *Competitive Factors*, p. 25

[117] Chang, *Transfer of Technology*, p. 11

[118] Borrus, Millstein, and Zysman, "Trade in the Semiconductor Industry," pp. 159-63; *Business Week*, September 10, 1979, p. 86-87; *Business Week*, October 22, 1979, pp. 127-28

dustry did not possess a trade policy of its own. Instead, working through the political organization for the electronics industry, the Electronic Industry Association (EIA), it quietly supported efforts to reduce tariff and nontariff barriers (NTBS) at home and abroad.[119] In addition, the semiconductor producers followed the association's opposition to repeal of TSUS items 806.30 and 807.00 and to the protectionist Burke-Hartke Trade Bill.[120] As foreign, especially Japanese, competition rose over the 1970s, the semiconductor industry initiated its own activities to deal with these trade issues. Even in this later phase, when the semiconductor industry leaders were threatening to use U.S. trade laws against the Japanese, the U.S. semiconductor producers remained primarily concerned with securing greater access to the Japanese market. Their strategy was to employ the threat of demanding trade restrictions in order to induce greater Japanese willingness to negotiate tariff and NTB reductions.[121] As would be expected of this type of industry, the semiconductor producers were interested primarily in maintaining and/or increasing the openness of their home and foreign markets.

In the 1970s, despite rising import levels, the semiconductor industry did not seek protection through the primary avenue available, U.S. trade law. Some producers did, however, tacitly use these as well as put pressure on the President to achieve their liberal aims. Only two trade petitions to the ITC were filed by the semiconductor industry in this period. One, submitted in 1976 by a small firm, Sprague Electronics, charged the Japanese with dumping capacitors. This petition, eventually rejected by the ITC, had little if any industry support and concerned a first generation product.[122] The other petition, which concerned unfair trading practices and is discussed in greater detail below, was never actually filed.

Though the industry did not formally charge the Japanese with trade law violations, it did use the threat of filing such charges to realize its preferences for greater access to the Japanese market. Toward the end of 1976, a group of merchant producers started complaining about Japanese trading practices, as the Japanese began to corner ma-

[119] EIA interview; SIA interviews; House, Ways and Means, *Trade Reform*, 1973, pp. 3216-78.

[120] Ibid. TSUS–Tariff Schedule of the United States.

[121] SIA interviews; SIA, *The International Microelectronics Challenge* (Cupertino, Calif.: SIA, 1981); SIA, *The Effect of Government Targeting on the World Semiconductor Industry* (Cupertino, Calif.: SIA, 1983).

[122] *EN*, November 1, 1976, p. 28; SIA interviews; Judith Goldstein, unpublished data, used in her "Reexamination of U.S. Commercial Policy."

jor portions of the world and U.S. market in large-scale memory integrated circuits, especially 16K and 64K RAM devices. The U.S. producers charged the Japanese with export subsidization, dumping, targeting, and nonreciprocal trade behavior.[123] In part, these complaints arose from the surge of Japanese imports into the United States; however, they were also generated by the U.S. firms' inability to penetrate the Japanese market. At the time, U.S. tariffs on semiconductors averaged only 6 percent, while the Japanese tariffs were 12 percent.[124] Moreover, U.S. foreign investment by the *merchant* producers in the Japanese semiconductor industry was limited to one major investment by Texas Instruments.[125] The U.S. firms felt that this situation was biased against them.

After circulating these complaints and establishing their own industry organization, the Semiconductor Industry Association (SIA), several leading merchant producers—Intel, Motorola, Advanced Micro Devices, Mostek, National Semiconductor, and Fairchild Camera—decided that the SIA should develop an unfair trading practices (section 301) petition against the Japanese in 1978 and 1979. These SIA members hoped to use the case to scare the Japanese into adopting fairer trade practices.[126] The association, however, ran into opposition over the petition from both the U.S. government (the office of the Special Trade Representative, in particular) and, most important, other semiconductor and computer firms. The U.S. government, or at least the executive branch as represented by the STR, opposed the filing of the petition because it was worried about another political confrontation with the Japanese government.[127] Certain U.S. semiconductor firms opposed it for two reasons. First, captive semiconductor producers, like IBM and Western Electric, and computer manufacturers, like IBM, DEC, CDC, and Hewlett-Packard, bought a substantial portion of their semiconductor devices from Japanese producers; they feared such a trade case would disrupt their supply of Japanese imports.[128]

[123] *EN*, April 18, 1977, pp. 1, 4; U.S. ITC, *Competitive Factors*, p. 60; Borrus, Millstein, and Zysman, "Trade in the Semiconductor Industry"; SIA, *International Microelectronics Challenge*; House, Ways and Means Committee, *Competitive Factors Influencing World Trade in Semiconductors*, hearings, 96th Cong., 1st sess., November 30, 1979, pp. 74-76.

[124] *EN*, April 18, 1977, pp. 1, 4; SIA interviews; U.S. ITC, *Competitive Factors*; SIA, *International Microelectronics Challenge*; SIA, *Effect of Government Targeting*.

[125] *EN*, March 13, 1978, p. 66; *EN*, December 12, 1977, p. 6; Borrus, Millstein, and Zysman, "Trade in the Semiconductor Industry," p. 175.

[126] SIA interviews; SIA, *International Microelectronics Challenge*; SIA, *Effect of Government Targeting*.

[127] SIA interviews.

[128] Ibid.; U.S. ITC, *Competitive Factors*.

Second, some firms, like Texas Instruments and IBM, had major semiconductor production facilities in Japan; they were concerned that the Japanese government might retaliate against their investments if the United States pursued the case.[129] Facing opposition from parts of the U.S. government and from the leading multinational semiconductor producers, the SIA decided not to file the unfair trade case.

The SIA did decide to use the threat of such a case to realize its firms' preferences for greater reciprocity in U.S.-Japanese trade.[130] Agreeing to this strategy, other major semiconductor producers, mainly IBM, joined with the association in 1979 in pressuring the U.S. government (again mainly the STR and the President) to open negotiations with the Japanese to accelerate the tariff cuts and ensure implementation of the NTB codes developed in the Tokyo Round.[131] The United States and Japan began these semiconductor negotiations in 1980, largely because of the SIA's prompting. In 1981, the Japanese agreed to accelerate their tariff reductions. The negotiated agreement called for harmonization of U.S. and Japanese semiconductor tariff rates at 4.2 percent, beginning in 1982.[132] Further pressure from the U.S. industry led to the resumption of these negotiations in 1983 to eliminate all tariffs on semiconductors in the two countries.[133]

In addition to these negotiations, the SIA pressed the U.S. government to ensure greater Japanese compliance with the Tokyo Round's NTB codes and, most important, to obtain Japan's agreement on opening up the country's telecommunications industry, controlled by Nippon Telephone and Telegraph, to the procurement of foreign supplies.[134] The negotiations were initiated and eventually resulted in an agreement acceptable to the U.S. industry. In fact, in 1981, Motorola won the first foreign contract ever from Nippon Telephone.[135] The SIA maintained that none of these initiatives to reduce trade barriers would have occurred or been successful without its threatening to

[129] SIA interviews; *EN*, March 13, 1978, p. 66. For suggestions about the likelihood of Japanese retaliation, see *EN*, May 9, 1977, p. 1.

[130] SIA interviews; SIA, *International Microelectronics Challenge*; U.S. ITC, "Testimony of the SIA on Investigation no. 332-102," May 30-31, 1979; *EN*, March 28, 1977, p. 1; *EN*, April 18, 1977, pp. 1, 4; *EN*, July 31, 1978, p. 1.

[131] SIA interviews; SIA, *International Microelectronics Challenge*; Alex Lidow, "Testimony before the House Ways and Means Committee," December 15, 1981.

[132] SIA interviews.

[133] Ibid.

[134] Ibid.; SIA, *International Microelectronics Challenge*; T. Skornia, "Testimony before the House Ways and Means Committee," September 18, 1980; George Scalise, "Testimony before the House Ways and Means Committee," July 9, 1981.

[135] *Washington Post*, February 26, 1981, p. B-1.

launch an unfair trading case against the Japanese. Furthermore, it claimed that the trade case was just a means to realize the industry's actual preferences for greater openness in markets throughout the world.[136]

If a first consequence of the SIA's pressure was these U.S.-Japanese efforts to reduce trade barriers, a second consequence was the initiation of an investigation of the integrated circuit industry and its trade by the ITC in 1979. The SIA's numerous complaints and testimony to Congress about the Japanese threat in 1977 and 1978 prompted the lawmakers, in particular the House Ways and Means Committee, to request an investigation by the ITC.[137] This action was intended to appease the SIA and to increase pressure on the Japanese to adopt reciprocal and fair trading practices. The SIA's attempt at using the U.S. trade laws against the Japanese prompted a flurry of activity in the executive and legislative branches that eventually resulted in the reduction of tariffs and NTB's between the two countries.

After 1982, increasing economic distress and import competition generated renewed activity by the merchant semiconductor producers on trade issues. In the mid-1980s the SIA and several firms filed trade complaints against the Japanese that charged them with dumping, subsidization, and patent infringement.[138] The firms did not seek import restraints as a solution, however. Rather, the firms once again resorted to the strategy of using these petitions to force the Japanese to open their market and to halt their unfair trade activities.[139] These complaints did not mean the semiconductor manufacturers had turned protectionist. They revealed the industry's keen and continuing interest in seeing Japanese markets further opened. Not all of the firms supported these trade petitions. Once again, the most international producers—IBM, Texas Instruments, and Motorola—opposed some of these activities.[140] The SIA's complaints, nevertheless, got a great deal of political attention, and the U.S. government initiated its own investigation of the industry.[141] All of this pressure resulted in 1986 in the negotiation of an agreement between the United States

[136] SIA interviews.

[137] U.S. ITC, *Competitive Factors*; House, Ways and Means, *Competitive Factors*.

[138] *Business Week*, July 1, 1985, p. 23; *NYT*, June 5, 1985; *NYT*, June 14, 1985; *NYT*, June 16, 1985; *NYT*, September 28, 1985; *The Economist*, August 24, 1985, p. 69; *Wall Street Journal*, September 30, 1985.

[139] *Business Week*, July 1, 1985; *NYT*, June 14, 1985.

[140] Ronald Gutfleich, "Why Protection? U.S. Corporate and State Responses to a Changing World Economy" (Ph.D. dissertation, University of California, Berkeley, 1987), ch. 8, pp. 33-34.

[141] *NYT*, December 7, 1985; *Wall Street Journal*, December 9, 1985.

and the Japanese to monitor Japanese semiconductor export prices and to allow U.S. firms a larger piece of the Japanese market.[142]

In Congress, the industry's activity during the 1970s went through three phases, in all of which their interest in trade liberalization was maintained. These activities paralleled their efforts with the executive branch. In the early part of the decade, as already mentioned, the semiconductor industry was not very active in Congress. When it was, it operated through organizations representing a wide spectrum of electronics industries, such as the EIA and the WEMA (Western Electronics Manufacturers' Association). The semiconductor industry's general disinterest in political issues at the time was evident from its lack of political organization. When the industry did concern itself with political matters, it supported the larger association's positions, which generally advocated freer trade. On the key trade issues of the early 1970s, the semiconductor industry gave its support to legislation to begin a new round of multilateral trade negotiations (the Trade Act of 1974) and opposed the protectionist Burke-Hartke Bill and repeal of TSUS items 806.30 and 807.00.[143] The industry's political activity in Congress prior to 1976, although minimal, was congruent with its interest in open world markets.

The industry's second phase of congressional activity, beginning in 1976 or so, coincided with the founding of the SIA, which will be discussed in more detail when the industry's internal debates are examined. Created primarily to deal with trade issues, the SIA pressed its case in Congress, voicing its complaints about the Japanese to generate pressure on both the U.S. executive and the Japanese government. The SIA thus testified extensively on Capitol Hill between 1976 and 1979 and began transforming its grievances into legislative proposals.[144]

The third phase of the industry's congressional activity saw a return to explicit support for freer trade and a broadening of the agenda for aiding the industry. This phase, beginning around 1979 or 1980, coincided with the SIA's expansion to include large U.S. and foreign multinationals engaged in the semiconductor and computer businesses. As already discussed, the new multinational members did not support the unfair trade case against Japan. They wanted instead to develop policy

[142] *Wall Street Journal*, August 1, 1986; *Wall Street Journal*, August 4, 1986; *NYT*, July 26, 1986; *NYT*, August 1, 1986; *NYT*, August 2, 1986; *Business Week*, August 18, 1986.

[143] House, Ways and Means, *Trade Reform*, pp. 3216-78; SIA interviews.

[144] SIA interviews; SIA, *International Microelectronics Challenge*; House, Ways and Means, *Competitive Factors*; Skornia, "Testimony" (1980); U.S. ITC, "Testimony of the SIA on Investigation no. 332-102," May 30-31, 1979.

proposals helpful to the multinationals (and the entire industry). The SIA was forced to abandon its filing of the unfair trading practices petition and to turn its complaints into wider proposals for action. The association broadened its agenda, moving away from trade issues to larger questions of industrial policy, and focused on issues like tax policy, antitrust policy, and provisions to reduce capital costs to the industry.[145] On questions directly related to trade, the U.S. semiconductor industry supported trade liberalization, as in its backing of the Trade Act of 1979, endorsing the Tokyo Round results.[146]

The industry's relations with the U.S. government on trade issues were affected by its own internal politics. Lack of organization and divisions among the firms initially constrained their political activity. As we have seen, prior to 1976, the semiconductor producers were represented by associations for the electronics industry. The EIA and WEMA were dominated by the large U.S. multinationals and evinced little concern for the interests of the merchant semiconductor firms.[147]

With the mounting Japanese import threat beginning in 1976, merchant producers, such as Intel, Motorola, Advanced Micro Devices, National Semiconductor, and Mostek, increasingly sought a political solution to their trade problems. When the EIA and WEMA were not forthcoming, these producers established their own association, the SIA.[148] Remaining aloof from the SIA were not only firms in the other electronics industries, which were the major users of semiconductor devices and were represented by the EIA and WEMA, but also two of the largest and most multinational semiconductor producers, IBM and Texas Instruments. These firms did not share the SIA's belief that "something had to be done" to halt the Japanese invasion of the U.S. semiconductor market.

The SIA members soon realized that without an industry-wide consensus, and in particular without the support of the leading producers—IBM and Texas Instruments—their trade complaints were not likely to be politically successful. Around 1979 the association began seeking to develop such a consensus by expanding its membership. In this process, it brought in IBM and some of the computer manufac-

[145] SIA interviews; Robert Noyce, "Testimony to the Subcommittee on International Finance of the Senate Banking Committee," January 15, 1980; SIA, *International Microelectronics Challenge*; SIA, "An American Response to Foreign Industrial Challenge to High Technology Industries," congressional staff briefing, July 23, 1980; Scalise, "Testimony"; Lidow, "Testimony."

[146] Senate, Finance, *Private Advisory Committee Reports*.

[147] *EN*, March 28, 1977, p. 1; *EN*, April 18, 1977, p. 1; SIA interviews; EIA interviews.

[148] Ibid.

turers and major semiconductor users like DEC, CDC, Honeywell, and Hewlett-Packard.[149] Texas Instruments, however, still declined to join, both out of fear of the Japanese reaction and out of a desire to be represented only by its own employees.[150] As noted, this expansion of the SIA changed its political focus, shifting its primary concentration from trade policy to broader industrial policy questions, on which a general consensus could be formed. The enlarged membership of the SIA in turn seems to have increased its political influence, since only after this expansion were its preferences for greater access to the Japanese market acted upon by the U.S. government.

Overall, the semiconductor producers fit our argument about Type III industries. The industry advocated free trade at home and abroad throughout the 1970s. Its international trade and multinational ties meant that protection was not a viable solution to its problems. It maintained this preference throughout the 1980s, despite fearsome import competition and mounting economic problems. The SIA's complaints and petitions in the 1980s were intended less to close the U.S. market than to open the Japanese market. Many U.S. manufacturers felt the Japanese were playing unfairly, and after much frustrating negotiation they decided to use the threat of trade action to compel the Japanese to change their ways. The U.S. manufacturers had become more aggressive in their strategy of dealing with their overseas competitors. Their trade policy preferences had not changed, but their method of pursuing them had.

Case 4: Radios and Televisions

U.S. manufacturers of radio and television sets suffered severe economic difficulties in the 1970s. The decade brought declining U.S. capacity, profitability, and employment for the industry. Plant closings were a common experience; the plants that survived operated at low levels of capacity.[151] Profitability declined every year between 1970 and 1977; and employment in the industry fell almost 50 percent from its peak in 1971 by 1975.[152]

This economic hardship accompanied rapidly rising import competition. Import penetration rates increased about 6 to 8 percent an-

[149] SIA interviews; SIA, *International Microelectronics Challenge.*

[150] SIA interviews.

[151] The industry studied here is those firms producing radios and televisions as defined in SIC 3651. U.S. ITC, *Television Receivers, Color and Monochrome*, pub. no. 808, March 1977.

[152] Ibid ; Office of Technology Assessment (hereafter OTA), *International Competitiveness in Electronics* (Washington, D.C : GPO, November 1983), pp. 114-15.

nually between 1971 and 1977, with imports capturing 43 percent of the domestic market by 1977.[153] For certain segments of the industry, imports were even more dominant: in 1977, imports accounted for 65 percent of domestic consumption of radios, nearly 50 percent of the market in audio equipment, and close to 63 percent of the sale of black and white television sets in the United States.[154] In fact, by the late 1970s most domestic production of these commodities had ceased, and what remained were U.S. assembly operations on components produced elsewhere.[155] Only color television sets, the best-selling product in the industry, were still produced in some number in the United States in 1977; imports of these claimed over 27 percent of the domestic market in that year.[156] All of these problems made the radio and television manufacturers prime candidates to demand protection.

U.S. radio and television manufacturing was a Type IV industry. It had significant multinational production, but few exports and limited intrafirm trading operations. The international trade position of the industry was not strong. Its net trade balance grew more and more negative over the 1970s, falling some 200 percent between 1970 and 1977.[157] Exports as a percentage of domestic consumption, however, increased in the period, from 5 percent in 1970 to 10 percent in 1977.[158] Much of this increase resulted from heightened use of offshore assembly. Despite this rising export activity, the U.S. industry's global trade position was weakening throughout the period.

The industry's multinational position also points to its categorization as Type IV. The industry began developing multinational production facilities in the 1960s, early in its history. This phase of expansion was accompanied by U.S. domination of the entire industry. After this, U.S. direct foreign investment stabilized, and in the 1970s the Japanese assumed domination of the world market. Only in the latter part of the decade did U.S. firms renew their movement abroad, but now

[153] U.S. Dept. of Commerce, *U.S. Commodity Exports and Imports, 1976/75* and *1977/76*.

[154] Ibid.; U.S. ITC, *Television Receivers*, pub. no. 808.

[155] OTA, *Competitiveness in Electronics*, pp. 112-14.

[156] U.S. Dept. of Commerce, *U.S. Commodity Exports and Imports, 1976/75* and *1977/76*.

[157] Ibid.; OTA, *Competitiveness in Electronics*, pp. 116-18. Since trade in TSUS items 806.30 and 807.00 accounts for a substantial proportion of imports, approximately 32 percent in 1976, this figure alone is inadequate. When the trade figures are adjusted for these imports, the net balance for the industry remains negative but less so.

[158] U.S. Dept. of Commerce, *U.S. Commodity Exports and Imports, 1976/75* and *1977/76*. Subtracting out the value of the U.S. content of trade in TSUS item 807.00, the export to domestic consumption ratio is much less robust. See OTA, *Competitiveness in Electronics*, pp. 118-19. U.S. ITC, *Economic Factors Affecting the Use of the Items 807 00 and 806.30*, pub. no. 339. U.S. ITC, *Import Trends in TSUS Items 806.30 and 807.00*, pub no. 1029.

this occurred as a response to economic difficulty and rising competition in the domestic market. Direct foreign investment by the U.S. firms was stable between 1972 and 1977. Foreign assets as a percentage of total assets were about 10 percent in both 1972 and 1977.[159] Multinational trade in the industry was small but increasing. For instance, the proportion of all multinational affiliates' exports to the United States relative to their affiliates' total sales totaled 31 percent in 1977 for the industry, an increase from the early 1970s.[160] U.S. multinationals producing radio and television sets had thus established some trading operations among their subsidiaries and parent corporations, which they were intensifying during the decade.

Multinational production and trade ties were unevenly distributed in the industry. Among the leading U.S. firms in the early 1970s, RCA and General Electric were the most international; GTE-Sylvania, Magnavox, and Zenith were the least; and Motorola was in between these two groups.[161] For example, RCA received almost as much revenue from its television technology licenses to Japanese firms ($50 million per year) during the 1970s as it did from its own sales of televisions.[162] On the other hand, Zenith received 80 percent of its revenues from its television manufacturing operations, which until 1978 were almost entirely concentrated in the United States.[163] By 1980, these rankings had changed to some extent; U.S. firms remaining in the industry had increasingly shifted production offshore, thus rendering RCA, General Electric, and Zenith more similarly dependent on multinational operations.[164]

Three other features of the industry are pertinent. First, the technological advantages held by U.S. manufacturers in this industry had

[159] U.S. Dept. of Commerce, *1972 and 1977 Enterprise Statistics*.

[160] U.S. Dept. of Commerce, *U.S. Direct Investment Abroad—1966* and *1977*. The value of MOFA exports to the United States (for the radio, television, and communication equipment industry, one somewhat larger than SIC 3651) in 1977 was $569 million. Estimates for MOFA exports to the United States as a percentage of total imports for the smaller four-digit SIC sector point to a substantial increase in this ratio from a relatively low 6.5 percent in 1966 to 13.5 percent in 1977. See Lavergne, unpublished data, used in his *Political Economy of U.S. Tariffs*; and U.S. Dept. of Commerce, *U.S. Direct Investment Abroad—1977*

[161] *EN*, February 14, 1977, p. 2; James Millstein, "Decline in an Expanding Industry: Japanese Competition in Color TVs," in *American Industry in International Competition*, ed. Zysman and Tyson, p. 125; Moody's, *Moody's Manual of Industrial Securities* (New York: Moody's, 1975); Katherine Hughes, *Corporate Responses to Declining Rates of Growth* (Lexington, Mass.: Lexington Books, 1982), ch. 4.

[162] OTA, *Competitiveness in Electronics*, p. 108.

[163] Ibid., p. 111.

[164] Ibid., p. 113. *EN*, October 3, 1977, p. 1; *EN*, December 12, 1977, p. 2

eroded by the late 1960s. At this time, Japanese firms moved to the forefront, mainly through the early introduction of solid-state technology. Ninety percent of Japanese production of radios and televisions in 1971 involved solid-state components instead of the older vacuum tubes; U.S. firms did not produce this new technology in any volume until 1973 or later, which indicates the loss of the U.S. technological lead.[165] Once this new technology was standardized, competitive advantage shifted further away from U.S. producers to other low-wage producers in East Asia.

A second feature involves the degree of foreign investment in the United States in this industry. With the loss of technological superiority, U.S. firms faced two related problems: increased U.S. imports and rising foreign investment in the U.S. market. In 1974, Japanese and West European electronics producers began U.S. production and/or assembly operations. By 1982, of the fifteen manufacturers of televisions in the United States, eleven were foreign owned.[166] A central implication of this was the enormous threat foreign producers posed to U.S. producers in their own home market.

Third, the industry was relatively concentrated. The largest eight firms produced over 60 percent of total shipments; and the two largest U.S. firms—RCA and Zenith—accounted for 40 percent of total sales of all color televisions.[167] Only a handful of U.S. firms were important players in the industry: RCA, Zenith, General Electric, Curtis-Mathes, GTE-Sylvania, Magnavox, and Motorola.

All this points to U.S. radio and television manufacturing as a Type IV industry, with substantial multinational operations and limited international trading capacity. These international ties, however, were concentrated among the largest firms. Among these firms, a key division existed between on the one hand, General Electric and RCA, the dominant multinationals, and on the other hand, Zenith, GTE-Sylvania, and Magnavox, who were domestically oriented companies.

The Dependent Variable

During the 1970s, the trade policy preferences and activities of the radio and television manufacturers reflected the divisions in the industry associated with the firms' different degrees of multinationality. In general, the producers with production located mainly in the

[165] Millstein, "Decline in an Expanding Industry," p. 107.

[166] OTA, *Competitiveness in Electronics*, p. 107.

[167] The industry concentration figure is from U.S. Dept. of Commerce, *Concentration Ratios*; the firms' market share figure is from OTA, *Competitiveness in Electronics*, pp. 114–115.

United States—Zenith, GTE-Sylvania, and Magnavox—waged a continuous battle against selected importers, using all types of trade policy measures. Domestic labor unions eventually joined with these firms in their protests against imports, as did various U.S. manufacturers of components (e.g., glass tubes) for the television industry. In opposition were the industry's highly multinational U.S. firms, such as RCA and the foreign multinationals, who gradually bought out many of the opponents of imports. Though not as vocal, this multinational group weakened the force of the domestic firms' arguments against imports simply by refusing to join them.

In the late 1960s and throughout the 1970s, the domestically oriented firms employed a variety of trade laws to force the executive branch to take action against imports. These manufacturers leveled charges of dumping, export subsidization, antitrust violation, and unfair trading practices against selected importers, finally resorting to demands for escape clause relief to staunch the flood of imports. Between 1973 and 1978, the industry filed twenty-four petitions for trade relief with the ITC.[168]

Two features of these charges are noteworthy. First, they were selective in whom they were directed against: the firms' concerns were related to Japanese imports only, not to all imports. Second, only particular products were involved in the charges. Color televisions, usually those already assembled, and citizen-band radios (CBs) were the prime targets. Other products, such as radios and monochrome televisions, were less an object of concern, since by 1973 they were not produced in any number in the United States.

The U.S. television manufacturers' battle against imports began in 1968 when Zenith, supported by allies in the Electronics Industries Association (EIA), brought antidumping charges against Japanese television imports. Zenith claimed that the Japanese were selling sets in the United States at prices lower than in Japan in order to gain U.S. market share. The charges were referred to the Treasury Department, which was responsible for determining whether such price discrimination was occurring. Two years later (December 1970) the Treasury Department ruled that dumping was indeed being practiced, thus sending the case to the ITC, which had to decide if the dumping had caused injury to the domestic industry. Almost a year later, the ITC found for Zenith and referred the case back to Treasury

[168] Judith Goldstein, unpublished data, used in her "Reexamination of U.S. Commercial Policy."

to establish the size of the antidumping fines.[169] The department, however, experienced difficulties. The Japanese refused to cooperate by providing the requisite information, and Zenith demanded steep fines. When the fines were finally set in 1972, both groups objected to them, and because of the controversy, they were only partially collected for several years. By 1980, only $13 million of the original assessment of $130 million in fines had been collected.[170] This was only the first unsatisfactory battle in Zenith's ten-year war against the Japanese.

In the midst of this antidumping case, Zenith and other manufacturers brought countervailing duty (CVD) charges against the Japanese. In April 1970, Zenith charged that the Japanese government was providing export subsidies to its television exporters through its rebates of their value-added commodity taxes.[171] In 1972 Magnavox and GTE-Sylvania initiated similar CVD cases against the Japanese.[172] These cases also engendered controversy. After a long delay, the Treasury Department ruled in 1975 against the domestic firms, maintaining that the VAT rebates were not a "bounty or grant" to which CVDs were applicable.[173] Angered by this decision, Zenith took the case to U.S. Customs Court, which in 1976 ruled in Zenith's favor.[174] Pressure from the Japanese government in part prompted the Treasury Department in 1977 to appeal the Customs Court's decision, and later that year the U.S. Appeals Court ruled against Zenith. Zenith then took the case to the U.S. Supreme Court, which in 1978 upheld the Appeals Court decision.[175] Zenith and its allies, Magnavox and GTE-Sylvania, had lost another battle in the war against Japanese imports.

Several other actions were taken by these U.S. manufacturers against Japanese importers. Zenith brought antitrust charges in 1974 against a number of Japanese firms for conspiracy to restrain trade. In particular, Zenith was concerned with the attempt of a Japanese

[169] David Yoffie, "Zenith Radio Corporation vs. the U.S.," case no 0-383-070, Harvard Business School, 1982; Millstein, "Decline in an Expanding Industry," pp. 125, 133.

[170] Millstein, "Decline in an Expanding Industry," p. 125; OTA, *Competitiveness in Electronics*, pp. 439-41; *EN*, April 10, 1978, pp. 1, 72.

[171] Yoffie, "Zenith Radio Corporation," pp. 9-11.

[172] Yoffie, "Zenith Radio Corporation"; Millstein, "Decline in an Expanding Industry," pp. 125-27.

[173] Yoffie, "Zenith Radio Corporation," p. 9; Dean De Rosa, J. Michael Finger, Stephen Golub, and William Nye, "What the 'Zenith Case' Might Have Meant," *Journal of World Trade Law* 13 (January-February 1979):47-54.

[174] Yoffie, "Zenith Radio Corporation"; *EN*, April 18, 1977, p. 1.

[175] *EN*, August 1, 1977, pp. 1, 13; Yoffie, "Zenith Radio Corporation," pp 9-11; *EN*, June 26, 1979, p. 1; OTA, *Competitiveness in Electronics*, p. 444.

firm, Matsushita, to buy Motorola's television operations. The Justice Department refused to do anything about the charges, and the case ended quietly four years later in 1978.[176] In another effort, GTE-Sylvania, alleging dumping, filed an unfair trading practices suit (section 337) in 1976 against Japanese importers. Strongly opposed, the U.S. Special Trade Representative and Treasury Department pressured GTE-Sylvania to drop the charges.[177]

Prior to 1976, the efforts of these U.S. television manufacturers to obstruct Japanese imports were made individually. In 1976 a coalition of labor unions, two U.S. television manufacturers, GTE-Sylvania and Wells-Gardner, and three U.S. suppliers to the domestic television industry, Corning Glass, Owens-Illinois, and Sprague Electric, calling themselves the Committee to Preserve American Color Televisions—COMPACT—petitioned the ITC to provide escape clause relief. Unlike earlier actions, COMPACT's demands were for *global* relief via quotas.[178] Zenith, the only large domestically oriented producer left, did not join COMPACT but did eventually support the petition for quotas on assembled televisions.[179] This move was strongly oppose by RCA. In the industry association's debate on this petition, RCA vocally disapproved of it.[180]

The ITC not only accepted this escape clause petition but also began its own investigation of all types of television imports. This latter investigation was opposed vigorously by other executive branch departments and was eventually terminated.[181] The escape clause petition filed by COMPACT was investigated by the ITC, which in 1977 found that injury to the domestic industry existed. The ITC's recommendation to increase the tariffs on color televisions for five years, which was applauded by COMPACT, was sent to President Carter for a final deci-

[176] *EN*, October 25, 1976, p. 6; *EN*, April 4, 1977, p. 21; *EN*, January 2, 1978, p. 38; Yoffie, "Zenith Radio Corporation," pp. 11-13.

[177] U.S. ITC, *Investigation of Televisions*, 337-TA-23 (January 1976); OTA, *Competitiveness in Electronics*, pp. 445-46; Yoffie, "Zenith Radio Corporation," pp. 7-8; *EN*, March 28, 1977, p. 22.

[178] Millstein, "Decline in an Expanding Industry," pp. 128-33; Yoffie, "Zenith Radio Corporation"; Yoffie, *Power and Protectionism*, pp. 215-21; *EN*, September 27, 1976, p. 1; COMPACT, *Petition to the U.S. ITC for Import Relief* (Washington, D.C.: COMPACT, September 1976); *EN*, October 25, 1976, p. 6; *EN*, January 17, 1977, p. 1.

[179] *EN*, September 27, 1976, p. 1; *EN*, October 25, 1976, p. 6; *EN*, January 17, 1977, p. 1; Millstein, "Decline in an Expanding Industry," pp. 128-29.

[180] Electronic Industries Association (EIA) interview; Millstein, "Decline in an Expanding Industry," p. 131; *EN*, March 21, 1977, pp. 1, 14.

[181] *EN*, April 12, 1976, p. 49; *EN*, April 19, 1976, p. 18; *EN*, October 4, 1976, p. 28; *EN*, October 11, 1976, p. 32; *EN*, November 15, 1976, p. 56; *EN*, December 20, 1976, p. 11.

sion.[182] For a variety of reasons, he rejected the ITC recommendation and instead negotiated an orderly marketing agreement with the Japanese. The choice of the OMA was partially dictated by fears that if nothing were done for the industry, COMPACT would appeal to Congress, which might overrule the President's decision and impose higher tariffs.[183] In May 1977, a three-year OMA with Japan on complete and incomplete color televisions was signed.[184] In 1978 two new OMAs with Taiwan and South Korea were arranged to prevent their imports from filling the gap left by the Japanese limits.[185]

These selective restraints—selective because they affected only certain importers and did not pertain to subassemblies or components—were in general accepted by the U.S. television manufacturers. Zenith was satisfied because it obtained some limits on imports from its major competitors, and RCA did not actively fight the restraints since they did not affect its multinational trade operations.[186] The domestic industry's response to the OMAs was either to accelerate their movement offshore or to sell their operations to a foreign company. For instance, in 1978 Zenith began reducing its U.S. television production operations and moving them to Mexico and Taiwan, and in 1981 GTE sold its Sylvania television operations to the Dutch firm, N. A. Philips.[187] This exodus of U.S. television producers relieved much of the pressure for limits on imports.

This diverse activity during the 1970s to use U.S. trade laws against Japanese importers of televisions suggests the continuous and increasing preference that domestically oriented television manufacturers had for restraint of Japanese competition, as the Japanese seized a technological lead in the industry. Their harassment of the Japanese abated only when the U.S. firms increased their international identity by moving offshore or by being acquired by a foreign multinational.

The U.S. manufacturers' battle against imports did not, however,

[182] U.S. ITC, *Television Receivers*, pub. no. 808; Yoffie, "Zenith Radio Corporation," pp. 13-14; Millstein, "Decline in an Expanding Industry," pp. 130-31.

[183] Millstein, "Decline in an Expanding Industry," pp. 132-35; Yoffie, "Zenith Radio Corporation," pp. 13-15; Yoffie, *Power and Protectionism*, pp. 215-21; *EN*, March 21, 1977, pp. 1, 14; EIA interview.

[184] Yoffie, *Power and Protectionism*, pp. 215-21; *EN*, May 23, 1977, p. 1; OTA, *Competitiveness in Electronics*, pp. 446-48; Millstein, "Decline in an Expanding Industry," p. 135.

[185] OTA, *Competitiveness in Electronics*, p. 448; Yoffie, *Power and Protectionism*, pp. 215-21; Millstein, "Decline in an Expanding Industry," p. 138.

[186] *EN*, May 23, 1977, pp. 1, 22; Millstein, "Decline in an Expanding Industry," p. 128; EIA interviews; *NYT*, May 21, 1977, p. 25.

[187] OTA, *Competitiveness in Electronics*, p. 116; *EN*, October 3, 1977, p. 1; *EN*, December 12, 1977, p. 2; *EN*, September 26, 1978, p. 1.

extend to pressuring Congress for legislation against the Japanese. They never called for separate legislation to deal with the radio and television industry's import problems, as the footwear industry did. Nor did they develop an explicit caucus in Congress devoted to solving their trade problems, as the textile, steel, automobile, and footwear industries all did. As a group, they were represented by the EIA, which testified frequently but kept its statements broad and oriented toward "free but fair" trade.[188] Without a coherent, industry-wide policy position or political organization and with a preference for selective import relief, these domestically oriented television manufacturers found it difficult to press for congressional action.[189]

The U.S. television manufacturers did seek to change the laws relating to trade. As in the footwear case, the costly, protracted, and unsatisfactory resolution of the television manufacturers' petitions against imports prompted these firms to seek to alter the trade laws during their congressional reviews in 1973-74 and 1979-80. The experience of television manufacturers, especially Zenith, with long delays in the investigation of antidumping and countervailing duty cases led them to desire time limits on these investigations, which the EIA proposed in hearings on the Trade Reform Act of 1974.[190] These limits were adopted in the final bill.

Later in the 1979 trade bill hearings to ratify the Tokyo Round agreements, some television manufacturers, along with other groups, expressed their dissatisfaction with the Treasury Department's handling of their trade petitions. Citing Treasury's reluctance to help domestic manufacturers, they proposed that the more friendly Commerce Department be given responsibility for these investigations.[191] The final bill once again reflected these desires, as jurisdiction for the

[188] See EIA, *Electronics and International Competition* (Washington, D.C.: EIA, 1978), for views of EIA.

[189] These domestic television producers did pressure Congress in order to pressure the executive branch into granting import relief under the trade laws. Several times these producers were able to obtain congressional help in their petitions. After experiencing much delay, Zenith got Senator Edward Kennedy, head of the Senate Judiciary Committee, to request that the Justice Department speedily investigate Zenith's antitrust charges against the Japanese. This request had little effect, for the Justice Department rejected the case. In another instance COMPACT pressured President Carter into the OMA action by prompting the Senate Finance Committee to urge the President to do something for the industry. This pressure was apparently more effective; Carter responded by negotiating OMAS for the industry. See *EN*, September 4, 1978, p. 74; *EN*, March 21, 1977, pp. 1, 74.

[190] EIA interviews; OTA, *Competitiveness in Electronics*, pp. 438-42, 450; *EN*, October 25, 1976, p. 6; House, Ways and Means, *Trade Reform*, pp. 3216-78.

[191] EIA interviews; OTA, *Competitiveness in Electronics*, pp. 440-42; Senate, Finance, *Private Advisory Committee Report*, pp. 365-410.

investigations was shifted to Commerce. Thus, in addition to pressuring the executive branch, the television manufacturers desiring import relief sought the help of Congress to alter the trade laws to make this more attainable.

The industry remained internally divided throughout the 1970s on trade issues. The basis of this political division related to the firms' differing multinational positions. Those with extensive multinational ties—like RCA and General Electric— maintained their preference for open markets, fighting to ensure that any import restrictions would be selective and not affect their operations.[192] Those firms whose production was concentrated in the United States—like Zenith, GTE-Sylvania, and Magnavox (until it became part of the Dutch N. A. Philips in 1974)—sought action against the Japanese importers. Having only their home market to lose, these firms felt impelled to resist the Japanese invasion.

These internal divisions had two important ramifications. First, the divisions were reflected in the lack of political organization in this sector. Though the electronics industry as a whole was represented by the EIA, the television manufacturers had no organization to represent them. Within the EIA, the industry was represented on trade issues in two different forums, which were controlled by the two different factions in the industry. In the International Business Council of the EIA, where general trade policy positions were discussed and adopted, the large U.S. and foreign multinationals held sway, and the councils' positions were pro–free trade. In the EIA's consumer electronics products' division, the domestically oriented television manufacturers outnumbered the large international firms, and the policy stances issuing from this group were supportive of trade actions against Japanese imports.[193] The EIA was thus riven by the same political divisions as the industry.

This lack of consensus forced the EIA to avoid taking positions on trade issues or to adopt only the most general ones. The inadequacy of representation provided by the EIA induced the firms wanting trade restrictions to form another organization to promote their interests. In 1976, as mentiond above, several domestic manufacturers helped create, along with a number of labor unions and domestic suppliers of television components, the Committee to Preserve American Color Televisions, which thereafter became the major force for trade restrictions on television imports. This organization, involving a labor-man-

[192] E.g., *EN*, February 14, 1977, p. 2.

[193] EIA interviews.

agement coalition, proved more successful than the earlier individual and EIA-backed efforts.

Despite COMPACT's apparent success, the industry ultimately possessed only a weak position because of its serious internal divisions. The inability to develop a consensual position on trade issues and its lack of political organization contributed to it's political weakness. When they did not find support among or, worse, were contradicted in their charges by the largest U.S. television manufacturers—RCA and General Electric—those firms fighting against Japanese imports found their cases weakened in the eyes of U.S. government officials. Similarly, without an organization to speak for their cause, the domestically oriented television manufacturers were less able to appeal directly to Congress. These internal divisions, generated by divergences in the multinational ties of the firms, reduced the pressures for actions against imports that might otherwise have arisen, given the economic distress felt by the industry in the 1970s.

CASE 5: WATCHES AND CLOCKS

The U.S. watch and clock industry experienced great economic upheaval during the 1970s. The technological change from conventional jeweled watches to nonconventional solid-state (digital and analog) watches forced the industry to reorganize. In effect, the industry was bifurcated into two distinct segments—conventional and nonconventional watch producers. The former group was composed of the long-standing American watch makers, led by Timex and Bulova. The latter group was composed mainly of U.S. semiconductor producers—such as Texas Instruments, National Semiconductor, and Fairchild Camera—and Japanese imports. Over the decade, conventional watches were displaced by nonconventional ones, and the traditional manufacturers either left the industry or moved into the nonconventional segment.[194]

The industry, especially the conventional sector, also faced much economic distress. In the decade, employment in conventional watch production was first steady and then declined, while in the nonconventional sector employment rose from 1974 to 1978 and then fell.[195] In

[194] This industry includes the products under SIC code 3873. Frost and Sullivan, *The U.S. Watch Market* (New York: Frost and Sullivan, 1978), pp. 1-35; U.S. ITC, *Report on Watches and Parts*, investigation no. 332-80, in House, Ways and Means Committee, *Report on Watches and Parts*, hearings on H.R. 14600, May 30, 1977.

[195] U.S. ITC, *Report on Watches*, investigation no. 332-80, p. 107; U.S. Dept. of Commerce, *Census: 1972*.

addition, the industry experienced a decline in the number of firms producing watches, despite the entrance of many semiconductor firms into the nonconventional segment.[196] The industry's economic performance in terms of its capacity utilization and profitability also suffered. Makers of conventional watches experienced periods of substantial excess production capacity in the early and mid-1970s before they were able to switch to nonconventional watch production. The industry encountered profit problems over the period; significant ups and downs in these firms' profitability between 1972 and 1976 were evident.[197]

The industry was also beleaguered by import competition. The watch and clock industry had always faced import competition, but the 1970s brought rapidly increasing rates of import penetration as well as new heights in import penetration levels. Between 1971 and 1977, import penetration of the U.S. market grew an average of 8 percent annually.[198] Imports accounted for 18 percent of domestic supply in 1970, and 35 percent in 1977.[199] The sector experiencing the greatest surge in imports was the nonconventional one. While conventional watch imports maintained a steady proportion of the U.S. market between 1972 and 1976 (between 35 and 28 percent), the nonconventional imports gained market share rapidly, jumping from 12 percent of domestic consumption in 1972 to 33 percent in 1976.[200] This foreign competition, combined with their economic difficulties, made the watch producers likely candidates to seek protection.

U.S. watch and clock manufacture was a Type IV industry, with substantial multinational operations but limited exports and intrafirm trade. However, the nonconventional watch segment was most like Type III, with substantial foreign production and trade activities, as in the semiconductor industry. The net international trade position of the industry over the 1970s was one of increasing deficits.[201] Its export

[196] Ibid.; Frost and Sullivan, *U.S. Watch Market*, pp. 1-35.

[197] U.S. ITC, *Report on Watches*, investigation no. 332-80, pp. 102-103, 120-21; Frost and Sullivan, *U.S. Watch Market*.

[198] U.S. Dept. of Commerce, *U.S. Commodity Exports and Imports 1976/75* and *1977/76*.

[199] Ibid.

[200] U.S. ITC, *Report on Watches*, investigation no. 332-80, p. 59.

[201] From a deficit of $160 million in 1970, the red ink rose to $536 million in 1977. See U.S. Dept. of Commerce, *U.S. Commodity Exports and Imports, 1976/75* and *1977/76*. These figures need to be corrected for the offshore assembly trade of U.S. firms. Significant use of TSUS items 806.30 and 807.00 in the watch industry began after 1974 and was largely concentrated in the nonconventional watch segment. In 1972, these offshore-assembly imports totaled about $1 million, or 0.7 percent of total imports. By 1976, these imports had soared to $189 million, or 43 percent of total imports. Recalculating the industry's

dependence was limited but advancing. Exports as a percentage of domestic supply grew from 2 percent in 1970, to 6 percent in 1974, to 13 percent in 1977.[202] Much of this increase was due to rising exports of watch parts and components for offshore assembly into nonconventional watches or modules.[203] Exports of conventional watches and parts from the United States rarely amounted to much, averaging 1 to 2 percent of total shipments in the late 1960s and early 1970s.[204] The export surge of the 1970s was not their doing.

The extent of multinational investment and trade for watches and clocks also indicates the conventional segment to be a Type IV industry. Its foreign investment was sizable. For example, foreign assets approximated 19 percent of total assets in 1972 and 1977, a large percentage.[205] The industry, however, had small intrafirm trade operations. Only 4 percent of all U.S. instrument producers' foreign affiliates' sales were imports to the United States in 1977.[206] Overall, the industry was characterized by a strong foreign investment position and limited export and multinational-related trade flows.

Two other features of this industry should be noted. First, the domestic industry had two segments, the conventional watchmakers and the nonconventional ones. The conventional segment was a Type IV industry, but the nonconventional segment was composed of U.S. semiconductor firms, which were Type III multinationals. This split within the industry had important economic and political conse-

net trade data to exclude the double counting of this offshore-assembly trade reveals that, though remaining in deficit throughout the period, the industry's trade position deteriorated much less than the original data suggests. By 1976, the deficit for watches and parts without the double counting was $265.4 million, while originally it was nearly double this figure. See U.S. ITC, *Report on Watches*, investigation no. 332-80, pp. 134-39; U.S. Dept. of Commerce, *U.S. Commodity Exports and Imports, 1976/75* and *1977/76*.

202 U.S. Dept. of Commerce, *U.S. Commodity Exports and Imports, 1976/75* and *1977/76*.

203 Nonconventional watch and parts exports rose from 21 percent of total exports in 1972 to 93 percent in 1976. See U.S. ITC, *Report on Watches*, investigation no. 332-80, p. 126. Additionally, exports related to TSUS items 806.30 and 807.00 (the nondutiable component) increased from 2 percent of total watch and parts exports in 1972 to almost 38 percent in 1976. As these figures demonstrate, the portion of U.S. exports of watches that was actually growing in the 1970s was the nonconventional sector of its offshore-assembly trade. U.S. ITC, *Report on Watches*, investigation no. 332-80, pp. 136-39; U.S. Dept. of Commerce, *U.S. Commodity Exports and Imports, 1976/75* and *1977/76*.

204 U.S. ITC, *Report on Watches*, investigation no. 332-80, pp. 136-39; U.S. Dept. of Commerce, *U.S. Commodity Exports and Imports, 1976/75* and *1977/76*.

205 U.S. Dept. of Commerce, *1972* and *1977 Enterprise Statistics*. These figures seem very high and are probably overstated.

206 U.S. Dept. of Commerce, *U.S. Direct Investment Abroad—1966* and *1977*. These figures are the larger sector of all instruments and thus are too highly aggregated. The ratio for MOFA exports to the United States was similar: 3 percent.

quences. Second, the industry had another sizable segment, composed of importers and assemblers, who imported incomplete watches or watch components requiring little further assembly and had U.S. subsidiaries that sold the watches under well-known brand names. This group, though not considered to be domestic producers, controlled a substantial share of the U.S. watch market.[207] All three of these segments were linked to the international economy, but the traditional domestic manufacturers depended most on the domestic U.S. market, because that was where most of their investments and profits related to watches were located.

The Dependent Variable

The trade policy preferences and activities of the U.S. watch and clock industry in the 1970s were affected much by these splits within it. The traditional manufacturers, led by Timex, were advocates of selective protection of the U.S. market. They opposed any new tariff reductions in 1974 and later sought to have duties on certain imports elevated by congressional legislation.[208] This move to raise some watch tariffs was related to the intra-industry competition between the traditional and solid-state manufacturers. It was part of the traditional firms' strategy to slow down the solid-state watch firms' rapid takeover of the entire U.S. watch market. Having failed to anticipate consumer demand for solid-state watches, these traditional manufacturers hoped that by raising solid-state prices, tariff increases in nonconventional watches would dampen demand and give them time to initiate large-scale production of these new watches.

These manufacturers had a history of dependence on selective trade barriers. After World War II, they worked to obtain protection from Swiss imports. In 1954 they succeeded in getting escape clause relief, which raised the tariff on (high quality) watch imports for thirteen years.[209] Even after the escape clause relief was terminated in 1967, tariff rates for the industry remained above the national manufacturing average.[210] In general, though these traditional manufacturers became more linked to the international economy through their growing worldwide sourcing and production of watches and compo-

207 U.S. ITC, *Report on Watches*, investigation no. 332-80.

208 Timex testimony in House, Ways and Means, *Trade Reform*, pp. 3185-92; U.S. ITC, *Report on Watches*, investigation no. 332-80.

209 House, Ways and Means, *Trade Reform*, p. 3181.

210 The nominal, post-Kennedy Round, trade-weighted average for the industry was almost 24 percent; the effective rate was 45 percent. U.S. ITC, *Protection in Major Trading Countries*, pub. no 737, August 1975

nents in the postwar period, they continued to prefer selective protection of the home market against their major sources of foreign competition: high-quality Swiss imports before 1970 and low-cost solid-state imports after 1973.

Opposition to the protectionist desires of the domestic manufacturers was weak before the 1970s. Led by importer/assembler firms, this group of opponents had little political influence, because it involved foreign firms and few American jobs. It was strengthened by the growing participation of the U.S. solid-state watch manufacturers. These were large, American semiconductor firms, which possessed substantial political as well as economic clout. In the battle over tariff rates, the interests of the nonconventional watchmakers and of the importer/assemblers coincided, since both preferred an open U.S. market.[211] An increase in U.S. watch tariffs would hurt these two groups both by increasing their watch prices and thus decreasing their sales in the U.S. market and by inviting retaliation by other countries. The battle over trade policy in the 1970s became part of the watchmakers' intra-industry competition, with the traditional manufacturers pressing for selective protection and the solid-state producers and importer/assemblers opposing such a policy.

The watch industry in the 1970s expended most of its efforts on Congress and in internal political activities. It spent little time petitioning the executive branch through the use of U.S. trade laws. Unlike the U.S. radio and television manufacturers, who sought import relief almost exclusively by petitioning the ITC over trade-law violations of various importers, the domestic watch manufacturers infrequently employed this method. Between 1973 and 1978, they filed six ITC petitions, five of which were begun as a result of the industry's pressure on Congress and one of which was an unfair trade petition, which was later withdrawn.[212] When domestic watchmakers' pressure on Congress did result in ITC investigations of the industry's trade problems, the ITC usually found unanimously against these domestic manufacturers' claims.[213] This negative reception strengthened the conven-

[211] U.S. ITC, *Report on Watches*, investigation no. 332-80; Robert Plishkin (American Watch Association [AWA]), "Testimony to the U.S. ITC on HR 14600 for investigation no 332-80," March 1977; AWA interview; *EN*, March 8, 1976, p. 33; *EN*, March 15, 1976, p 66.

[212] Thirteen petitions total were filed. Of these, seven (and the only successful ones) were for workers' trade adjustment assistance. See Judith Goldstein, unpublished data, used in her "Reexamination of U.S. Commercial Policy"; U.S. ITC, *Report on Watches*, investigation no. 332-80

[213] Ibid.

tional manufacturers' penchant for going to Congress with their complaints.

Throughout the 1970s, the traditional domestic manufacturers—Timex, Bulova, Benrus, and Armin—sought to realize their preference for a more protected U.S. market by lobbying Congress. Their goal in 1973 and 1974 was to have legislation enacted that would exempt the industry from further tariff reductions in the Tokyo Round negotiations and from inclusion in the lists of products in the Generalized System of Preferences (GSP). Pressure to obtain these exemptions was evident in their testimony to and lobbying of Congress during consideration of the Trade Reform Act of 1974 (and its predecessors). These domestic manufacturers opposed delegation of tariff-setting authority to the President for the new multilateral trade negotiations. This opposition resulted partially from a desire to stifle any new multilateral trade talks and partially from a desire to exchange their opposition to the whole bill for promise of the industry's exclusion from the tariff cutting. Timex and Benrus testified against the trade act and worked to obtain President Nixon's promise that the watch industry would be exempted from duty-free GSP status.[214] These efforts were not very successful. The act was passed, and watches were not given a special status, except in their exemption from GSP.

Failure to receive exemption from the multilateral tariff-cutting negotiations, combined with rising competition from solid-state watches, prompted a new search for protection by the domestic watch manufacturers. In 1976 these manufacturers—in particular, Timex, Bulova, and Benrus—induced the House Ways and Means Committee to introduce a bill (H.R. 10176, later H.R. 14600) to alter the tariff classification of solid-state watches and to increase duties upon them dramatically from 75 cents per unit to $5.37.[215] Wilbur Mills, chairman of the committee, introduced the bill. The fact that Timex had several plants and its headquarters in his district was frequently noted.[216] The bill was an instrument of selective protection, since it only affected solid-state watches, and this evoked great opposition. The importer/assemblers, organized in the American Watch Association (AWA), and the U.S. semiconductor firms involved in solid-state watch production all worked against the bill.[217]

[214] House, Ways and Means, *Trade Reform*, pp. 3186-95.

[215] *EN*, February 16, 1976, p. 1; U.S. ITC, *Report on Watches*, investigation no. 332-80, esp. pp. 25-29.

[216] AWA interview; *EN*, February 16, 1977, p. 1; *EN*, March 14, 1977, p. 8.

[217] AWA interview; U.S. ITC, *Report on Watches*, investigation no. 332-80; Plishkin, "Testimony"; *EN*, March 8, 1976, p. 33; *EN*, March 15, 1976, p. 66.

Despite the fact that provisions of the bill would have been "inconsistent with certain tariff concessions granted by the U.S. under the GATT and could [thus] result in claims for compensation by the [countries]," the bill initially seemed likely to pass, largely because of Mills' support.[218] When Mills was forced to leave the committee, however, the new chairman, Al Ullman (D.-Oreg.), halted activity on the bill and requested that the ITC investigate the industry. The ITC determined unanimously that the industry did not need protection and that the bill was merely an attempt by several domestic producers—mainly Timex—to reduce competition from nonconventional watches.[219] The Ways and Means Committee accepted the ITC's conclusions. Not bowing to Timex's threats to abandon all U.S. production if the bill was not passed, it tabled the bill in 1977.[220]

In part the bill's failure was attributable to Mills' departure from the Ways and Means Committee and to vigorous opposition from the major nonconventional watch producers—Texas Instruments, National Semiconductor, Fairchild Camera, and Hughes Aircraft. But the bill also lost the support of many of its original proponents. Over the two-year period of the bill's consideration, many of the traditional manufacturers began their own production, usually offshore, of solid-state watches, and others simply closed shop or sold out to foreign firms. By March 1977, Benrus, Bulova, and Armin had ended their support for the bill, as they now produced and imported digital watches from offshore.[221] Only Timex continued to support the bill, and even its support was waning, as the firm initiated sizable offshore assembly of watch components and began purchasing quartz components from Hughes Aircraft, which opposed Timex's stance on the bill.[222] The traditional producers' economic responses to the solid-state watch manufacturers' competition thus deepened their ties to the international economy and thereby diminished their preference for protection.[223]

[218] U.S. ITC, *Report on Watches*, investigation no. 332-80, letter to ITC findings, p. vii.

[219] U.S. ITC, *Report on Watches*, investigation no. 332-80.

[220] *EN*, March 21, 1977, p. 72; AWA interview.

[221] *EN*, March 21, 1977, p. 72.

[222] *EN*, March 14, 1977, p. 8; *EN*, March 21, 1977, p. 72.

[223] The only other trade policy action by the watch industry in the 1970s involved pressure on Congress to deal with a rather minor issue: revoking the duty-free status of Soviet imports to the United States from the Virgin Islands. The issue here pitted the foreign and American importers and assemblers represented by the AWA, who wanted to end the duty-free entry of Soviet parts, against several Virgin Islands watch assemblers and importers who used Soviet-made parts. The debate did not involve the major U.S. watchmakers. In the end, this minor issue—the Soviets only imported some $3.7 million in watch components from the insular possessions in 1977—was resolved by Congress through a compromise: the Soviet imports were monitored but not taxed. See Senate, Finance Committee, Subcommittee on International Trade, *The Use of 'Low Labor' Components in the Insular Possessions' Watch Industry*, 95th Cong., 2nd sess., August 21, 1978, pp. 1-65.

The U.S. watch and clock industry's battle over trade policy, though fought primarily in Congress, reflected divisions in the industry that resulted from the introduction of solid-state technology. The three central segments of the industry were defined largely by the differences in their linkages to the international economy.[224] The traditional domestic manufacturers, a Type IV industry, much like U.S. radio and television manufacturing, carefully targeted their political attacks on imports, not wanting to disrupt trade globally for fear that this would injure their own multinational operations. As in the radio and television industry, this response to import competition had two components: a political one, involving efforts to get import relief, and an economic one, involving further movement of production out of the United States and/or increasing ties to foreign firms. The latter response weakened these manufacturers' preferences for any kind of import relief, since they became major importers themselves.

Finally, in a third similarity to the domestic radio and television manufacturers, the traditional watch producers lacked a political organization. Timex, much like Zenith, seemed to prefer to operate on its own politically. Unlike Zenith, though, it chose congressional legislation over U.S. trade law remedies as its primary weapon against imports. The domestic component of the traditional watch industry behaved like a Type IV industry. Being multinational but dependent largely on the home market, it could afford only to press for selective protection from its main import threat—nonconventional watches.

The other two segments of the watch industry possessed different international ties and different trade policy preferences. The importer/assemblers were mainly foreign firms that had U.S. sales subsidiaries. Their dependence on imports into the United States for all their sales made their preference for an open U.S. market understandable. Surprisingly, these firms were also well organized politically. Represented by the AWA, they were visible and respected proponents of freer trade for the watch industry.[225] Because they could not claim to speak for any sizable domestic political constituency, how-

[224] U.S. ITC, *Report on Watches*, investigation no. 332-80; Frost and Sullivan, *U.S. Watch Market*, pp. 1-55; Pliskin, "Testimony"; AWA interview.

[225] AWA interview; *EN*, March 8, 1976, p. 33.

ever, they lacked political influence relative to the traditional manufacturers.

The third segment of the watch industry possessed greater political influence. This group, composed of large U.S. semiconductor firms, was interested in open U.S. markets for watches and their components. Producing and assembling most of their solid-state watches abroad and then shipping them back to the United States, these firms had no desire to see tariffs on these goods increased. Their preference for open markets was conveyed both individually and jointly through their industry associations, originally through the WEMA and later through the SIA. In testimony to Congress, these associations expressed their staunch opposition to any attempts to erect trade barriers in the watch industry.[226] Their efforts, combined with those of the AWA, eventually proved successful.

After 1978, vicious competition within the industry drove many of the U.S. semiconductor firms involved in watchmaking out of the business. National Semiconductor bowed out in 1978 and Fairchild was acquired by the French-based firm Schlumberger in 1979, which thereby eliminated two of the biggest U.S. nonconventional watchmakers.[227] By 1979, three major forces were left in the U.S. watch market: Timex, Texas Instruments, and Japanese imports.[228] In the early 1980s Texas Instruments also stopped producing electronic watches.[229] In the space of a decade, then, the restraints against protectionist forces—i.e., the nonconventional domestic watch producers—had evaporated. The Japanese at this point began quietly "monitoring" their watch exports to the United States, due to fear that the United States might otherwise impose trade restraints on them.[230]

Case 6: Tires

Throughout the 1950s and 1960s, the U.S. rubber tire and inner tube industry registered high growth and profitability. It was the world's technological and sales leader, its fortunes having risen in tandem with those of the U.S. auto industry. Beginning in the late 1960s, however,

[226] SIA interviews; *EN*, March 8, 1976, p. 33; U.S. ITC, *Report on Watches*, investigation no. 332-80; *EN*, March 15, 1976, p. 66.

[227] *EN*, June 13, 1977, pp. 1, 6; Borrus, Millstein, and Zysman, "Trade and Development in the Semiconductor Industry," pp. 171-72; *EN*, January 9, 1978, p. 60; *EN*, January 30, 1978, p. 1.

[228] *EN*, January 9, 1978, p. 60.

[229] *Wall Street Journal*, September 17, 1981, p. 29:1, *Wall Street Journal*, June 1, 1981, p. 4:1; *NYT*, May 30, 1981, p. 29:3; *EN*, June 1, 1981, p. 27:1

[230] *EN*, May 15, 1978, p. 60.

U.S. producers began losing their preeminent position, and they experienced substantial economic upheaval in the 1970s.

First, the U.S. industry lost its technological advantage by failing to adopt the new radial tire technology.[231] Foreign tire companies, especially the French-based Michelin, moved aggressively into radial production in the late 1960s. After the quadrupling of oil prices in 1974, the fuel-saving radials developed a massive popular following and moved from about 5 percent of the U.S. passenger tire market in 1972 to 100 percent in 1982.[232] The U.S. industry was not prepared when this dramatic shift began in 1975, and the foreign radial imports seized market share rapidly.

Second, foreign autos, trucks, and motorcycles with their own, foreign-made tires were increasingly imported to the United States in the 1970s. As these imports gained U.S. market share, U.S. tire manufacturers lost sales. Not surprisingly, the tire industry gaining the most in this process was that of Japan, led by Bridgestone Tire Company.[233] By 1980 the radial tire threat begun by Michelin had been superceded by the tire import threat led by Bridgestone.

The U.S. industry experienced increasing economic difficulties over the 1970s. From its expanding position throughout the 1950s and 1960s it slowed down in the early 1970s and then declined in the later part of the decade. Between 1970 and 1982, twenty-six U.S. tire plants were closed and capacity in the industry was reduced significantly.[234] U.S. tire firms also shifted the bases of their operations geographically, moving operations from Akron, Ohio, to newer, nonunionized plants in the southern United States in search of lower-cost production.[235] Employment grew slowly until 1976 but declined sharply after 1977.[236] The profitability of the tire makers also suffered.[237]

[231] The industry covers the manufacturers of rubber tires and inner tubes (SIC 3011) *Rubber and Plastics News* (hereafter *RPN*), April 12, 1982, p. 4; Rubber Manufacturers Association (RMA) interviews. Although a U.S. firm, Goodrich, originally developed the radial tire in the late 1950s, U.S. firms decided not to produce and market it at that point. The fact that radials last substantially longer than normal tires and hence need to be replaced less often may have influenced this decision.

[232] *RPN*, April 12, 1982, p. 4.

[233] *RPN*, October 12, 1981, pp. 59-60

[234] U.S. Dept. of Commerce, *Census, 1972*; *Business Week*, October 29, 1979, pp. 150-54; *RPN*, April 12, 1982, p. 4.

[235] *Industry Week* (hereafter *IW*), vol. 195, November 21, 1977, pp. 70-76.

[236] U.S. Dept. of Commerce, *Census, 1972*; U.S. Dept. of Commerce, *1979 Annual Survey of Manufactures*.

[237] *IW*, vol. 184, March 24, 1975, pp. 57-59; *IW*, vol. 192, March 28, 1977, pp. 58-59; *IW*, vol. 197, March 20, 1978, pp. 57-59.

This economic distress was accompanied by rising foreign competition from all sides. As noted, for different reasons, both West European and Japanese imports steadily took over U.S. market share. In terms of import penetration, the industry saw a surge from about 3 percent in 1972 to 12 percent in 1976, or an average annual increase of 4 percent between 1971 and 1976.[238] Imports reached $991.6 million in 1977 from a value of $202.2 million in 1970.[239] The tire industry thus was a likely candidate to demand protection.

U.S. tire manufacturing was a Type IV industry. It had a sizable but declining multinational position and lacked substantial trading operations. Its international trade position was weak. It experienced a net trade deficit throughout the 1970s that grew substantially each year, except for 1974 and 1975 immediately after countervailing duties (CVDs) had been placed on certain Canadian imports.[240] Its export position over the decade was also small and unchanging. Exports averaged about 3.5 percent of domestic consumption.[241]

The tire industry had a significant multinational component that declined slightly in this period. Its ratio of foreign assets to total assets was 23 percent in 1972 and 19 percent in 1977.[242] The industry's declining multinational position was also reflected in its foreign earnings, which fell between 1966 and 1977 from 18 percent to 3 percent.[243] Though substantial, its foreign operations were performing poorly.

Direct foreign investment by the industry was unevenly distributed. The leading four firms were large multinationals in the early 1970s.[244] These firms accounted for almost all of the industry's foreign production; the rest was domestically oriented. Among these leading firms, moreover, multinationality was increasingly unevenly distributed. The leader, Goodyear, who alone controlled one-third of the U.S. market, was by far the most multinational. It received almost 40 percent of its

[238] U.S. Dept. of Commerce, *U.S. Commodity Exports and Imports, 1976/75* and *1977/76*.

[239] Ibid.

[240] Ibid.

[241] Ibid.

[242] U.S. Dept. of Commerce, *1972* and *1977 Enterprise Statistics*. Other data on the percentage of total foreign assets to total parent assets show the figure to be slightly higher, around 43 percent in 1974. See IRS, *Statistics of Income—1974-78*. Data on the affiliates' sales as a percentage of their parents' total sales point to a figure of 35 percent for 1977. See U.S. Dept. of Commerce, *U.S. MNC's: U.S. Merchandise Trade, Worldwide Sales, and Technology-Related Activities in 1977* (Washington, D.C.: GPO, 1983).

[243] U.S. Dept. of Commerce, *U.S. Direct Investment Abroad—1966* and *1977*. This figure represents foreign earnings as a percent of total foreign investment position.

[244] *RPN*, June 7, 1982, p. 1.

net income from foreign earnings in 1974.[245] Its dominant position increased over the decade, as other firms pulled out of foreign markets when they got into trouble.

The U.S. tire industry had a weak international trading network in the 1970s. Not only were its U.S. exports very small, but its foreign operations were geared less to trade than to serving the local market. Exports to the United States were only 8 percent of the total sales of all foreign affiliates in 1977.[246] All in all, this was a Type IV industry, facing the loss of its international competitive advantage both at home and abroad.

Two other features of the industry deserve mention. The U.S. tire industry has long been very concentrated. In 1977 its largest four firms accounted for 71 percent of all shipments, while the top eight firms controlled 90 percent.[247] The five firms dominating the U.S. market in the 1960s and 1970s were Goodyear—the largest, with over 33 percent of the market, Firestone—a distant second with 17 percent, B. F. Goodrich, General Tire, and Uniroyal.[248] Goodyear far surpassed the others in size and multinationality.

Within the industry, differences in firms' participation in its sectors were also apparent. The largest sector, passenger car and truck tires, was highly concentrated and dominated in the 1970s by the five largest firms.[249] Other sectors, such as off-the-road and agricultural equipment tires, bicycle tires, and inner tubes, were controlled by different, smaller U.S. firms.[250] The second- and third-tier firms dominating these particular sectors—like Armstrong, Cooper, and Carlisle—were small domestic producers. Unlike "the big five," who in some cases had

[245] Moody's, *Manual: 1975*.

[246] U.S. Dept. of Commerce, *U.S. Direct Investment Abroad—1966* and *1977*. MOFA exports to the United States accounted for 5 percent of total MOFA sales in 1977. More disaggregated data demonstrate that the tire industry's MOFA exports to the United States as a proportion of all tire imports accounted for 39 percent in 1966 but only 10 percent in 1977. See Réal Lavergne, unpublished data, used in his *Political Economy of U.S. Tariffs*.

[247] U.S. Dept. of Commerce, *Concentration Ratios*.

[248] *RPN*, June 7, 1982, pp. 1, 11.

[249] *RPN*, January 18, 1982, p. 8.

[250] For instance, bicycle tires were produced in the United States in 1975 by only two firms, Carlisle Tire and Goodyear; after 1977, only Carlisle remained in the market. See U.S. ITC, *Bicycle Tires and Tubes*, investigation no. TA-201-33, pub. no. 910, September 1978; *RPN*, June 7, 1982, p. 1. The production of inner tubes in the United States was also controlled by a different set of small firms. Armstrong Rubber Company, Cupples, Cooper Tire, Carlisle, and to a much lesser degree Firestone, Goodrich, and Goodyear were the key inner tube producers in the United States in the 1970s. *RPN*, March 15, 1982, p. 1.

up to one-third of their operations outside the United States, these small firms were completely dependent upon the U.S. market.[251]

A second notable feature was the rising direct foreign investment in the U.S. industry during the 1970s, which accompanied foreign penetration of the U.S. market by imports. Beginning in the mid-1970s, every major foreign tire maker initiated plans to build or acquire production facilities in the United States. By 1983, four of the leading foreign tire manufacturers were operating American plants.[252] This was one more sign of the mounting competition faced by the American firms.

The Dependent Variable

The trade policy preferences of the U.S. tire and inner tube industry in the 1970s were geared largely to the maintenance of open markets for tires throughout the world. The industry's preferences revolved around retention of the status quo. Formal trade barriers in the industry were low in the early 1970s,[253] and informal barriers to trade in tire products were also insignificant. Operating on a global basis and dominant in it, the "big five" U.S. firms had long preferred a world of free trade.

The industry's political activities reflected this preference. The industry remained satisfied with the existing situation in the 1970s and did little beyond supporting efforts like renewed Tokyo Round negotiations that would keep markets open. Rising import penetration and economic difficulties, however, prompted some activity to obtain relief. The industry initiated a few trade-related actions in particular product lines that were greatly suffering from foreign competition. In these cases, which involved three products—radial tires, bicycle tires, and inner tubes— firms in the industry, after a good deal of internal

[251] U.S. ITC, *Bicycle Tires*, pub. no. 910; RMA interviews.

[252] Dunlop, the British tire maker, who had production operations in the United States already, increased its investment and production in the United States during the 1970s. See *NYT*, April 3, 1974, p. 65; *RPN*, August 16, 1982, p. 4; *RPN*, September 26, 1983, p. 1. Michelin opened its first plant in the United States in 1975, and by 1981 its American production accounted for a substantial 8 percent of U.S. tire sales. See *RPN*, January 18, 1982, p. 8; *RPN*, July 5, 1982, p. 4. Buying a Firestone plant in Tennessee, the Japanese firm Bridgestone moved to the United States in 1982. See *RPN*, March 1, 1982, p. 4; *RPN*, December 19, 1983, p. 1; *RPN*, January 3, 1983, p. 1. Continental, the German tire manufacturer, acquired production facilities in the United States in 1982. See *RPN*, August 16, 1982, p. 4.

[253] The U.S. post–Kennedy Round, trade-weighted average duty was 3.9 percent, the average in 1973 for the thirteen major industrial countries was 7.1 percent. U.S. ITC, *Protection in Major Trading Countries*, pub. no. 737.

debate, took actions that were intended to make it more difficult for imports to be sold in the United States.[254] These actions were few and were targeted against specific products and importers.

These initiatives to curb imports relied upon use of the U.S. trade laws. When the industry did infrequently approach executive agencies, it attempted to do so with a united front, which was developed only after much intra-industry discussion. No single firm or small group of firms persistently sought import relief of any type in the 1970s. Nor did the tire industry ever try to have legislation introduced in Congress to provide it special import relief.

Between 1968 and 1978, the industry was involved in only eight petitions to the ITC. Of these, only one involved the largest market segment—auto tires— where the five large multinationals controlled the market.[255] The other cases focused on smaller sectors where the second- and third-tier domestic firms dominated. In addition, of the eight petitions, only one sought import relief through increased tariffs or quotas. The remaining petitions dealt with charges of export subsidization and dumping by specific importers. Despite its economic difficulties, the industry's attack on imports was mild and limited.

The first petition, the only one in the 1970s involving car tires, was initiated by the Rubber Manufacturers Association (RMA) in 1972. In this petition the RMA charged that Canadian exports to the United States of radial auto tires produced by Michelin were being subsidized and argued that a CVD should therefore be imposed on them. The Canadian government and Michelin acknowledged that the tire operations were subsidized, but they maintained that the subsidies were intended to promote regional domestic development in Canada and not exports. Thus the issue was not whether subsidization was occurring, but whether it was directed toward export or domestic economic promotion. In a surprising decision, the U.S. Treasury Department ruled that export subsidization was occurring, and it imposed CVDs (a 6.6 percent duty) against Canadian radial tire imports by Michelin in 1973.[256]

In a sense, this petition represented a valid use of U.S. (and GATT)

[254] U.S. ITC, *Selected Publications of the U.S. ITC, through September 1979*, pub. no. 1031, January 1980, pp. 15-30; U.S. ITC, *Bicycle Tires*; RMA interviews.

[255] Of a total of twenty, twelve concerned trade adjustment assistance for workers; the remaining eight petitions were initiated by the industry. Judith Goldstein, unpublished data, used in her "Reexamination of U.S. Commercial Policy."

[256] RMA interviews; Robert Guido and Michael Morrone, "The Michelin Decision," *Law and Policy in International Business* 6 (Winter 1974):237-66; *NYT*, January 5, 1973, House, Ways and Means, *Trade Reform*, pp. 3364-68

trade laws to prevent unfair trading practices by other countries. But the subsidization was of a type that the GATT system often recognized as legitimate, since it was for domestic economic purposes. This argument was the one Michelin and the Canadian government used in their long battle to have the CVDs repealed. In fact, Michelin claimed that U.S. firms were using the CVD complaint as a means of dealing with Michelin's technological advantage in radial tires.[257] As one analyst of the case phrased it, "Michelin argued the complaint lodged by the U.S. RMA was actually a disguised attempt to protect [the U.S. firms'] monopoly position by preventing the better, safer, although higher priced Michelin product from competing in the US market."[258] As in other cases, this petition for trade action was related to intra-industry competition, and in this case involved an effort to offset a competitor's technological advantage through other means.

The industry's decision to file against Michelin required substantial internal discussion and consensus building. Goodyear, having received similar subsidies for other products from the Canadians and fearing retaliation, was not favorably disposed to the action.[259] As the world and U.S. industry leader, Goodyear was opposed to protectionist activity. Goodyear, an official stated, "refused to be identified with any formal protectionist activity because it feared foreign retaliation."[260] Since the chairman of Goodyear in much of the 1970s, Charles Pilliod, was also head of the RMA, protectionist sentiment arising within the tire industry met with opposition from the RMA.[261] In fact, by the end of the 1970s, Goodyear would no longer support the continuing imposition of CVDs against Michelin. In 1981, it convinced the RMA to end its case against Michelin and thereby helped to terminate the CVDs.[262]

The other industry petitions for trade action were related to product lines where the smaller, domestically oriented firms were most affected. The bicycle tire manufacturers—mainly, Carlisle Tire—filed several petitions for help, demanding escape clause relief and antidumping action. Carlisle's petitions were not joined by the RMA, but the association did not prevent the petitions from being filed.[263] In the

257. RMA interviews; Guido and Morrone, "Michelin Decision."

258. Guido and Morrone, "Michelin Decision," p. 253.

259. RMA interviews. Goodyear might have been against the CVD because it received similar subsidies from the Canadians; see Guido and Morrone, "Michelin Decision," p. 252, note 106.

260. RMA interviews.

261. Ibid.; *RPN*, May 24, 1982, p. 1.

262. *RPN*, June 21, 1982, p. 1; RMA interviews.

263. *RPN*, June 7, 1982, p. 1; RMA interviews; U.S. ITC, *Bicycle Tires*, pub. no. 910.

case of the U.S. inner tube manufacturers who filed antidumping and CVD petitions, the actions were initiated by the small domestic firms like Armstrong Rubber and Cooper Tire, although the large multinationals ended up signing the petitions.[264] The RMA, however, did not participate; instead, these small firms began their own ad hoc committee to develop an industry-wide consensus on the issue.[265] Action concerning the inner tube imports was also targeted against specific importers, such as Taiwan and South Korea. Thus, the petitions filed by the U.S. tire industry against imports were few, selective, and prompted by the small domestic firms in the industry.

The industry's activity in Congress concerning international trade issues was minor in the 1970s. Other issues, such as product liability and safety, labor relations, and tax policy consumed much more of the RMA's attention.[266] And even in the trade area, the industry's concerns involved exports and the treatment of multinationals as much as they did the issue of import trade barriers. The industry expressed some interest in export promotion legislation and in matters concerning the tax treatment of multinationals—i.e., the foreign tax credit issue.[267] The RMA's main activity concerning trade barriers involved supporting the idea of a new round of multilateral trade negotiations in 1973-74 through its endorsement of the Trade Act of 1974.[268] The industry by 1979 was less interested in further reductions in U.S. tariffs on tires, but it did support the Trade Act of 1979, endorsing the Tokyo Round negotiations' results.[269] The industry never tried to organize a congressional caucus to promote its trade policy preferences. Throughout the 1970s, it was content with the trade policies in place.

The industry's internal politics reflected the differences in economic position among its firms. Though all segments of the industry faced rising import competition and serious economic difficulties, the ones most frequently resorting to trade relief petitions were those dominated by the smaller, domestically oriented firms. The bicycle tire and inner tube makers petitioned for help, while the major auto tire manufacturers refrained from such political activity and preferred to re-

264. U.S. ITC, *Bicycle Tires*, pub. no. 910, RMA interviews; *RPN*, March 15, 1982, p. 1; *RPN*, August 30, 1982, p. 1.

265. *RPN*, August 30, 1982, p. 1; RMA interviews.

266. RMA interviews.

267. RMA interviews; Senate, Finance Committee, Subcommittee on International Trade, *Multinational Corporations*, 93rd Cong., 1st sess., February 1973, pp. 176-206; House, *Trade Reform*, pp. 3364-68.

268. RMA interviews; House, Ways and Means, *Trade Reform*, pp. 3364-68.

269. RMA interviews; Senate, Finance Committee, *Private Advisory Committee Reports*, pp. 143-61; *RPN*, November 23, 1981, p. 5; *RPN*, January 18, 1982, p. 11.

spond economically to their problems. In the face of serious economic decline, the large firms opted to diversify and/or to increase their international operations rather than to call for protection.[270]

These differences within the industry were not reflected as much in its political organization. All the firms in the tire industry, except McCreary Tire, belonged to the RMA. Although dominated by the large multinational tire makers, the RMA's tire division also represented the small U.S. manufacturers. It lent support to their petitions for trade relief in the late 1970s and the early 1980s but did not participate in decision making on these cases for two reasons. First, not all the major firms liked the idea of pursuing the petitions, and the RMA refused to take action whenever unanimous consent was lacking.[271] Second, the RMA was legally forbidden by the Federal Trade Commission from collecting and circulating data on industry prices necessary for the filing of CVD and antidumping suits.[272] Apparently, fear of antitrust violations kept the RMA out of the petition process.

Because of these two factors, the RMA refused to handle the smaller firms' trade complaints. These firms then decided to form their own ad hoc committee, as already mentioned, to develop consensus within the industry on the trade complaints. Consensus building was very important in this industry, largely because the petitioners' problem was obtaining the support of the industry leader, Goodyear, who preferred freer trade. Without Goodyear's tacit support, any petition lacked credibility: hence, Goodyear had to be convinced, along with the other major firms, not to oppose the petitions. The industry's economic structure thus rendered political consensus building a necessity, while the major firms' well-developed links to the international economy made trade policy actions to hinder imports undesirable and difficult to undertake, even in the face of tremendous economic distress. Rather than seek protection, the major firms adjusted on their own, shedding unprofitable operations, diversifying, and/or developing new products.

270 *RPN*, January 18, 1982, p. 1; *RPN*, March 29, 1982, p. 1; *RPN*, April 26, 1982, pp. 1, 75; *RPN*, September 27, 1982, p. 59; RMA interviews.

271 RMA interviews.

272 Ibid. One interviewee claimed the RMA feared the antitrust implications of collecting the antidumping and countervailing-duty data; the other interviewee claimed this was not a concern, since they collected this data for the excise tax calculations.

CHAPTER 5

The French Case Studies, 1970s

WE NOW TURN to six French industries of the 1970s, and examine them in terms of our primary hypothesis: that industries with greater links to the international economy should be less protectionist than more domestically oriented industries, even when both face serious economic distress. As in chapters 3 and 4, each case is divided into two parts. First, the industry's economic distress and import problems, which indicate its a priori interest in protecting its domestic market, are discussed. The industry's ties to the international economy are also detailed, generating predictions about its preferences on trade policy issues. Other relevant features of the industry are then examined as well.

The second section of each case explores the preferences of the industry vis-à-vis trade policy. For French firms in the 1970s, four different arenas for communicating their trade policy views existed. The industry expressed its *national* trade policy interests, usually involving its complaints about foreign trade and its desire for import surveillance or limitation, to French government officials. Second, the industry made known its demands for *industrial* policy measures through pressure on the appropriate French officials for increased aid, subsidies, reduced tax burdens, and new norms and standards affecting foreign competition. Third, the industry's desire for trade policy actions at the *European Community* (EC) level may be seen in its preferences expressed regarding the tariff negotiations of GATT, its complaints about foreign dumping, subsidization, or injury by imports, and its demands for import surveillance or limitation by the EC. The fourth arena was internal, involving the industry's own discussions and determination of strategies to deal with its problems.

CASE 1: FOOTWEAR

Prior to the mid-1970s, the French footwear industry was a success. The industry was the second largest in Europe, just behind Italy, and the world's third largest footwear exporter. This success was reversed after 1975; from this point on, the industry declined steadily and experienced severe economic distress due to increasing imports, declin-