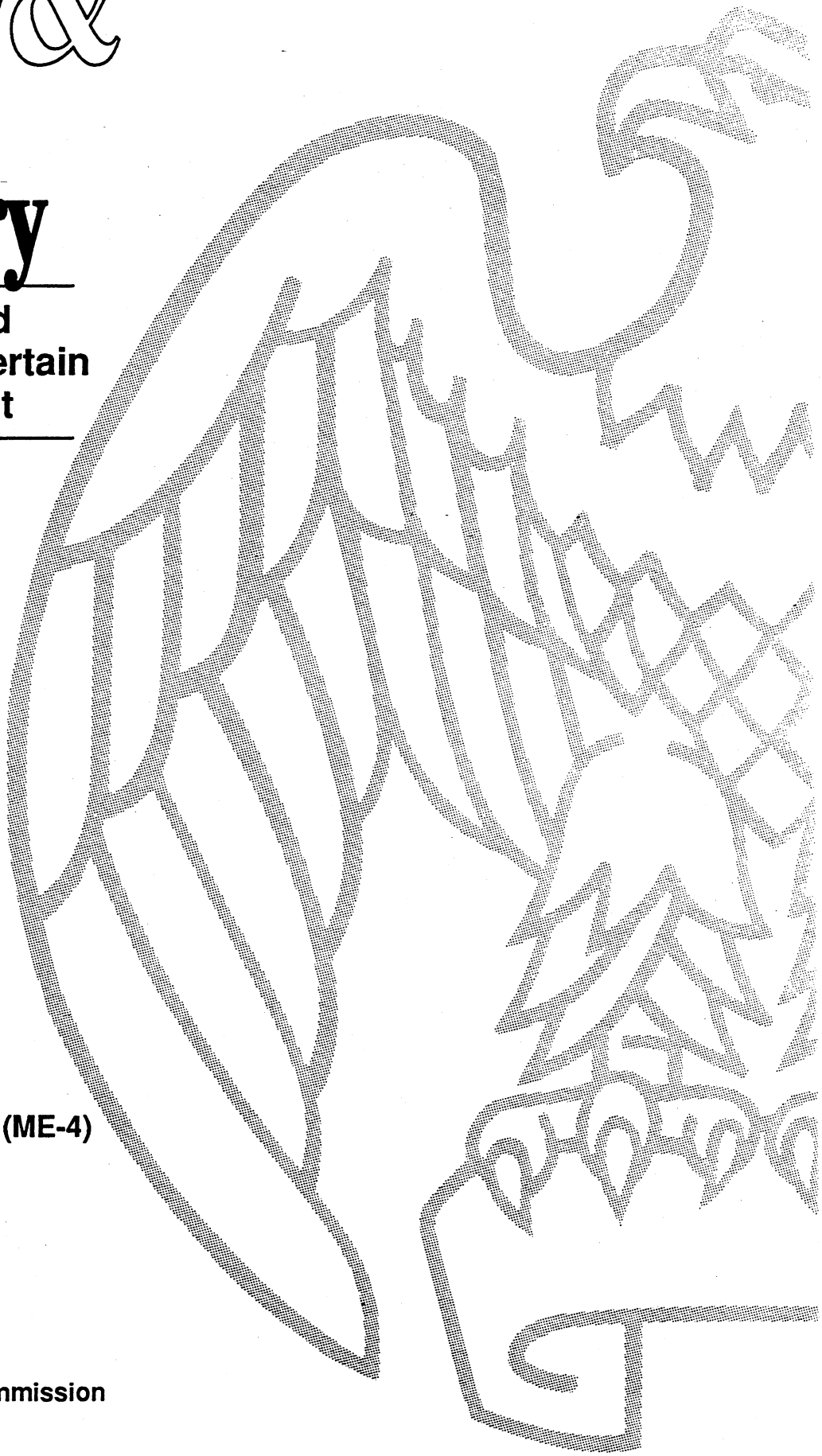
Industry & Trade Summary

Electric Household Appliances and Certain Heating Equipment



USITC Publication 2570 (ME-4)
November 1992

OFFICE OF INDUSTRIES
U.S. International Trade Commission
Washington, DC 20436

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PREFACE

In 1991 the United States International Trade Commission initiated its current *Industry and Trade Summary* series of informational reports on the thousands of products imported into and exported from the United States. Each summary addresses a different commodity/industry area and contains information on product uses, U.S. and foreign producers, and customs treatment. Also included is an analysis of the basic factors affecting trends in consumption, production, and trade of the commodity, as well as those bearing on the competitiveness of U.S. industries in domestic and foreign markets.[1]

This report on electric household appliances covers the period 1987 through 1991 and represents one of approximately 250 to 300 individual reports to be produced in this series during the first half of the 1990s. Listed below are the individual summary reports published to date on the machinery and equipment sector.

USITC publication number	*Publication date*	*Title*
2430 (ME–1)	November 1991	Aircraft, spacecraft, and related equipment
2505 (ME–2)	April 1992.....	Construction and mining equipment
2546 (ME–3)	August 1992	Agricultural and horticultural machinery
2570 (ME–4)	November 1992	Electric household appliances and certain heating equipment

[1] The information and analysis provided in this report are for the purpose of this report only. Nothing in this report should be construed to indicate how the Commission would find in an investigation conducted under statutory authority covering the same or similar subject matter.

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INTRODUCTION

This summary of industry and trade information on electric household appliances covers the period 1987 through 1991. The report is organized into three major sections: U.S. and foreign industry profiles; trade measures; and U.S. industry performance in domestic and foreign markets. In addition, appendixes provide an explanation of tariff and trade agreement terms and further statistical information on the industry.

The electric household appliances considered in this summary are divided into two general categories: (1) small electric appliances and (2) major electric appliances. These appliances are of the type used in homes and do not include electric appliances made specifically for commercial or industrial application (e.g. commercial and industrial food mixers, commercial laundry equipment).[1] The important types, or subcategories, of small appliances are vacuum cleaners and floor polishers, electromechanical and electrothermic kitchen and household appliances, and electric heating equipment. Major appliances consist principally of refrigerators, dishwashers, washing machines, clothes dryers, and electric cooking stoves and ranges. The bulk of trade in the electric heating equipment category is in such items as space heaters, baseboard heaters, immersion heaters, and other small heating apparatus and is grouped with small household appliances.

Products covered in this summary are included in the following Standard Industrial Classifications:

3585 (pt.), Air-Conditioning and Warm Air Heating Equipment;
3631, Household Cooking Equipment;
3632, Household Refrigerators and Farm Freezers;
3633 (pt.), Household Laundry Equipment; and
3639 (pt.), Household Appliances, Not Elsewhere Classified.

Based on value, 30 percent of total imports of household appliances in 1991 were accounted for by two products: electric cooking stoves and ranges (22 percent) and refrigerators and refrigerator-freezers (8 percent). The following is a brief description of some of the appliances covered by this summary and their uses.

Vacuum cleaners and floor polishers.—Electrically powered vacuum cleaners are mechanical devices that rely basically on suction for cleaning rugs, carpets, and floors. Some vacuum cleaners contain revolving brushes to loosen dirt, and most are designed to use a variety of attachments for cleaning curtains, walls, furniture, and otherwise inaccessible areas. The most common vacuum cleaners are upright and canister-tank types. Other vacuum cleaners are classified as lightweight or stick uprights, portable hand-types, miniature or vacuum brushes, heavy-duty or shop types, and central vacuum systems.

Floor polishers rely on electrically driven rotary disc brushes and buffing pads to apply, polish, and buff wax. Many floor polishers also perform such additional functions as scrubbing, removing water, and shampooing rugs.

Other electromechanical kitchen and household appliances.—Electromechanical kitchen and household appliances are devices with self-contained motors (some of which are battery operated) and include food mixers, food processors, knife sharpeners, can openers, blenders, food waste disposals, ice crushers and shavers, soda fountain dispensers, food grinders and slicers, humidifiers, beauty and manicuring sets, back scratchers, tie racks, liquor dispensers, various electric polishers, and hair brushes (battery operated). This category also includes hair clippers, shavers, and scissors.

Electrothermic kitchen and household appliances.—Electrothermic appliances are devices that contain an electric element that produces heat for cooking, warming, and/or heating. Some appliances may be equipped with an electric motor in addition to the heating device. Electrothermic appliances include flatirons, coffeemakers, toasters, skillets, hot food server units, food warmers, and electric heating elements.

Dishwashers.—Dishwashers are machines that wash, rinse, and dry dishware, glassware, cutlery, and cooking utensils by chemical, mechanical, and/or electrical means. Household dishwashers are produced either to fit under kitchen counters or to stand alone.

Clothes dryers.—Clothes dryers are normally front-loading machines. The drying basket lies on its side in the dryer and tumbles the load loosely as it spins, allowing hot air movement through each garment. Household dryers have capacities of up to 20 pounds.

Electric cooking stoves and ranges.—In conventional electric cooking stoves and ranges, radiant heat is applied to the surface of food from which it is absorbed and conducted through the food until the food is cooked to the degree desired. The most common type of electric cooking unit is the free-standing range, which comprises electrically heated surface units and one or more ovens. Other types include drop-in ranges, slide-in ranges, and counter-mounted surface units with separate wall-mounted ovens.

Microwave ovens are electronic devices that use microwaves, or high frequency energy, to generate heat. These microwaves produce heat throughout the entire mass of food instantaneously, permitting faster and more energy-efficient cooking. Microwave cooking has one major disadvantage: a limited capacity for crisping or browning foods. To compensate for this disadvantage, some ovens are sold with a browning unit—essentially a conventional heating element. Other ovens use special cooking utensils that can, to some extent, improve food browning.

The most popular microwave oven is the countertop unit, which is designed for use on flat

[1] Data reported for microwave ovens include household and commercial ovens.

surfaces. Other types are the combination unit (a free-standing gas or electric range with two ovens, one a microwave and the other a conventional oven), and the built-in unit.

A recent development in electric cooking stoves and ranges is the induction cooking range. Induction cooking uses varying electric current in a wire coil just under the flat rangetop surface to induce alternating current in metal cookware on the top of the range. The alternating current heats the metal cookware, with an adjustable power flow in the coil regulating the temperature. Manufacturers of induction cooking ranges list several advantages for these units over conventional electric cooking ranges, including energy conservation, faster heating of the cooking utensil, more rapid cool down, easy clean-up, and greater safety.

Generally, all types of electrical household cooking stoves and ranges in the United States are designed for 120/240 volt, 60-cycle, 3-wire, single-phase alternating current operation. They are manufactured in three basic widths: 24, 30, and 36 inches.

Electric heating equipment.—The electric heating equipment covered by this summary includes the most common types found in and around the home, such as portable space heaters, wall heaters, baseboard heaters, warm air furnaces, immersion heaters, oil heaters for motor-vehicle, electric heating cables, and boilers.

U.S. INDUSTRY PROFILE

Industry Structure

The United States is the world's foremost producer of, and single largest market for, electric household appliances. In recent years, the domestic electric appliance industry has experienced major structural changes as a result of acquisitions and mergers. Some manufacturers have been takeover targets for stronger companies looking to expand their product lines and market shares. The resulting acquisitions and mergers have caused the increasing concentration of the U.S. industry in a small number of large, dominant companies and also has reduced the number of U.S. establishments by consolidating duplicative operations. Although the number of domestic companies manufacturing electric appliances has decreased since 1985, the number of brands in specific categories has increased.[2] This trend has been especially strong in major appliances because companies have maneuvered to establish full product–line brands. The U.S. industry produces virtually all of the appliances covered in this summary.

In 1990, the industry producing major electric household appliances consisted of approximately 65 companies with 145 establishments. Over 50 percent of the establishments had 20 or more employees.[3] Establishments manufacturing these products were located throughout the United States, with the heaviest concentration (over 50 percent of all major appliance establishments) in the following four states: Ohio, Illinois, Wisconsin, and Michigan. The industry is mature and highly concentrated, with five companies (General Electric, Whirlpool, White Consolidated/AB Electrolux, Maytag, and Raytheon) holding over 95 percent of domestic production of major appliances and an 85-percent share of the domestic market. Most major appliances are produced by vertically integrated firms from parts and components manufactured on site.

Total employment in the major household appliance industry declined by 5 percent, from an estimated 64,000 in 1986 to 61,000 in 1990, according to official data of the U.S. Department of Commerce. The primary factors influencing the decline in employment were company mergers and plant consolidations, along with improved manufacturing technology and increased productivity. Productivity, as measured by output per employee hour, increased by 3.5 percent during 1988–90, compared with a 2.3-percent increase for all manufacturing.[4] The industry producing major appliances is considered to be moderately labor-intensive. The industry labor intensity in 1990, as measured by the ratio of payroll to value added by manufacture, averaged 38 percent for major home appliances, 2 percent lower than the ratio for total domestic manufacturing.

The U.S. small appliance industry is mature and moderately concentrated, with about 264 establishments in 1990, compared with nearly 280 in 1986. In 1989, establishments manufacturing small appliances were located throughout the United States, with the heaviest concentration in the East North Central States (Ohio, Illinois, Wisconsin, and Michigan) and the East South Central States (Tennessee and Kentucky).[5] The majority of small electric household appliances are manufactured by large, multiproduct concerns that produce virtually every type of small appliance including certain types of small heating equipment. Manufacturers of certain heating equipment, on the other hand, generally limit their entire production to heating and cooling apparatus (e.g. boilers, space heaters, fans), but then manufacture a variety of that equipment. This specialization is mainly due to the expertise required to sell and service most heating and cooling equipment. Some of the leading companies in this industry are Black and Decker, Wear-Ever, Sunbeam, Mr. Coffee, Hamilton Beach, Toastmaster, Rival, and Oster with a combined share of nearly 85 perent of the domestic market.

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[2] *Major Home Appliance Industry Factbook,* Association of Home Appliance Manufactures (AHAM), 1990/91.

[3] U.S. Bureau of the Census, *County Business Patterns,* 1990.

[4] Data based on statistics from the U.S. Bureau of the Census and Bureau of Labor Statistics.

[5] U.S. Bureau of the Census, *County Business Patterns,* 1990.

Many U.S. manufacturers of small home appliances, particularly the larger firms, contract production with firms abroad. This arrangement allows companies to take advantage of low-cost labor in some developing and newly developed countries. The products from these rationalized operations are marketed locally as well as in the United States and other foreign countries.

Total employment in the small home appliance industry declined from an estimated 58,000 workers in 1986 to an estimated 53,000 in 1990. The industry labor intensity averaged 28 percent for small appliances in 1990, compared with 38 percent for major appliance industry manufacturing. The lower labor intensity rate may be attributable in part to the fact that most small appliance manufacturers are less vertically integrated than their major appliance counterparts. Small appliances are usually manufactured from parts and components purchased from outside suppliers.

Financial data relating specifically to the electric appliances covered in this summary are not separately reported by most domestic producers because they are subsidiaries of large, diversified multinational corporations. However, net earnings after taxes for the appliance industry as a whole declined by nearly 29 percent in 1991 over that reported in 1988, as shown in the following tabulation:[6]

Year	*Net profit (Million dollars)*	*Net profit margin (Percent)*
1988	449.1	4.8
1989	427.2	3.1
1990	296.4	1.9
1991	320.0	2.1

Industry sources indicate that the primary causes of this decrease were the increases in raw material costs (e.g. steel, porcelain enamel, plastics, controls), that were partially absorbed by manufacturers, and a decline in unit shipments. Prices for household appliances have increased less rapidly than those for other commodities, primarily because of stiff competition among manufacturers of electric household appliances as the appliance market has become more saturated. From 1986 through December 1991, the Producer Price Index for electric household appliances increased by 6 percent, compared with 20 percent in the composite index for "all items," and 19.7 percent for household durables.[7]

Until recently, all U.S. establishments manufacturing electric household appliances were domestically owned. However, through acquisitions and mergers, subsidiaries of multinational firms from Japan, Korea, Italy, and Sweden have begun production of appliances in the United States. These corporations, with growing interest in the U.S. market, were cognizant of two important facts: (1) European and Asian major appliances are not tailored for the U.S. market and (2) heavy and bulky major appliances designed for the U.S. market had high shipping costs for export. These conditions provided the impetus for foreign firms to establish manufacturing facilities in the United States.

U.S. manufacturers of home appliances have also begun, or announced plans to start, production of appliances in other countries. Nearly all of the major appliance manufacturers have entered into joint-venture agreements with foreign manufacturers. U.S. manufacturers are trying to establish a presence in the markets of major producing countries, especially in the European Community (EC), before internal EC trade barriers are removed in 1992. Some U.S. industry officials have indicated that the EC integration will make market access more difficult for U.S. manufacturers, especially if U.S. testing methods, certification, and labeling procedures for appliances are not recognized in the EC.

The major drive to establish a global strategy for U.S. manufacturers is the slow growth in U.S. demand because of the high percentages of U.S. households with home appliances currently in place. In the EC and other overseas markets, however, there is more growth potential for household appliances because saturation levels are relatively low. For instance, according to Euromonitor,[8] 80 percent of German households have both a coffee maker and a toaster, compared with 99.9 percent in the United States. Penetration levels in French, British, and especially Italian households, are much lower, with 36 percent of British households owning a coffee maker and 62 percent of French households possessing a toaster.

Marketing Methods And Technology Trends

Domestic manufacturers of major electric household appliances generally market their products through distributors (both company-owned and independent), builder/contractors, national private-label retailers, and other independent retailers. Most small household appliance manufacturers, on the other hand, sell predominately to retailers. The typical retail outlets that market these products are appliance catalog stores, discount and department stores, and home improvement centers.

All of the world's leading manufacturers of major electric household appliances employ the latest technology in product design. Electronic touch-pad control technology that once appeared only on microwave ovens has become a standard feature on top-of-the-line ranges, refrigerator-freezers, and dishwashers, as well as on laundry equipment and home comfort appliances. In addition, such innovations as increased energy-efficient features and advanced plastics are routinely utilized by both foreign and U.S. manufacturers.

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[6] Value Line, Sept. 1991. Data include all household appliances.

[7] Derived from U.S. Department of Labor, Bureau of Labor statistics, *Producers' Prices and Price Indexes.*

[8] Euromonitor, *The International Market, 1990.*

Technology trends in the small appliance industry have also resulted in a shift toward the use of electronic controls and energy-saving features. These innovations have improved the quality and reduced the size of these products, resulting in more reliable and sophisticated small electrical appliances.

Environmental Regulations

Because of heightened concerns that chlorofluorocarbons (CFCs), a substance used as a coolant in household refrigerators and freezers, may be destroying the earth's ozone layer and contributing to global warming, the United States became a signatory to the Montreal Protocol Treaty in 1987 and the Montreal Protocol Amended in 1990. The treaty provides for the complete elimination of CFC production by the year 2000. The U.S. Environmental Protection Agency (EPA) issued implementing regulations in 1988 requiring that U.S. production of CFCs be frozen at the 1986 level and that a staged 70-percent reduction from 1986 production levels be completed by 1998. In addition, the U.S. Congress imposed a staged tax ranging from $1.37 to $3.10 to be levied annually on each pound of CFCs consumed effective from January 1, 1990, through 1995 and an additional assessment of 45 cents a pound each year thereafter.

The Appliances Industry-Government CFC Replacement Consortium, a technical partnership of refrigerator and freezer manufacturers; the U.S. Department of Energy (DOE); EPA; and chemical, component, and materials suppliers, has been formed to identify substitutes for CFCs. The alternatives developed have not been fully tested, and some appear to be less energy efficient than CFCs. According to industry officials, manufacturers of household refrigerators will probably not have a safe, efficient, and economical substitute for CFCs before 1993. If effective substitutes are not developed, the prices for CFCs could more than double as supplies are reduced, resulting in an increase in the cost of the production of refrigerators. Since most industrialized nations are implementing similar CFC regulations, the effect of CFC regulations will likely be felt equally among domestic and foreign producers.

Concurrent with the CFC regulation, the revised National Appliance Energy Conservation Act of 1989 (NAECA), implemented by the DOE, requires that manufacturers of certain electric appliances meet specific energy efficiency standards by 1993. These energy standards can be revised upward by DOE in future years. Although the new standards requiring improved energy efficiency will increase the initial costs of purchase to consumers (by approximately 10 percent for a typical refrigerator, according to industry officials), they will reduce appliance life-cycle costs and operating expenses. The new standards are likely to be met by improving the efficiency of components for appliances, such as condensers, compressors, new coil designs, motors, etc., without redesigning the exteriors or downsizing major appliances. Industry officials believe that the industry could be adversely affected if the Government mandates any further reduction in energy usage by appliances or restricts the use of CFCs before adequate substitutes become available.

Consumer Characteristics and Factors Affecting Demand

The U.S. market for electric appliances consists principally of household consumers and commercial establishments[9] nationwide, with consumption patterns determined in large part by population size, growth, distribution, and other demographic characteristics. The level of personal income and general business conditions, especially as they affect private housing construction, strongly influence original and replacement sales of electric appliances. Residential construction greatly affects the demand for built-in stoves and ranges and for other major appliances in the United States.

In addition, increasing energy costs and consumer debt in recent years have had a dampening effect on certain appliance purchases, especially those of major appliances. However, the degree of demand for electric household appliances varies from product to product. Certain appliances, such as toasters and coffee makers that are considered to be necessities, are inexpensive and generally consume relatively little electricity; therefore, energy cost or the lack of consumer credit does not greatly affect demand. Rising energy costs, however, can stimulate demand for some appliances as substitutes or supplements to appliances that are large users of energy. For example, in some geographic areas, electric space heaters can replace or supplement central heating systems, and microwave ovens can be used to replace or supplement free-standing ranges.

FOREIGN INDUSTRY PROFILE

The global electric appliances industry is dominated by producers in industrialized nations, such as Canada, Germany, Japan, Sweden, and the United States, which constitute most of the world's leading manufacturing countries. Their advanced industrial structure, abundant electricity supplies, and significant purchasing income levels are the bases for this industry development. The trend toward international mergers, consolidations, and subsidiaries has accelerated in the past few years, as U.S. and foreign manufacturers move to strengthen their competitive positions worldwide.

All major international competitors have manufacturing facilities or distribution networks throughout North America and the EC member states, the two largest household appliance markets. In contrast, few multinational manufacturers have production facilities in the Asia-Pacific region, a large supplier of household appliances in the world market.

[9] Some household appliances are commonly used in small commercial establishments, such as office buildings and snack bars.

One of the major hindrances associated with entry into Asian markets for appliance manufacturers has been limited access to distribution channels. GE, the second-largest producer of appliances in the United States, has forged an alliance with Toshiba, the number two appliance manufacturer in Japan, to gain a foothold in the Far East appliance markets.[10] Toshiba is one of the few companies that has a growing presence in other Asian markets.

In terms of major appliances, the world market is dominated by such multinational companies as Whirlpool (United States), which holds approximately a 30–percent world market share; AB Electrolux (Sweden), a 21-percent; Matsushita (Japan), a 20-percent; and General Electric (United States), a 16-percent. Generally, manufacturers of major appliances have significant competitive advantages over one another in their home markets. Proximity to the marketplace is a major factor in reducing the cost of transporting these bulky products and in knowing design and style preferences of consumers, which are strong demand determinants. In addition, performance and safety standards, voltage requirements, and electrical outlet configurations vary from country to country. However, global styles and designs have developed for products such as microwave ovens and dishwashers, thus encouraging trade within certain geographic regions where preferences have generally differed.

The world's principal producers of small home appliances are the manufacturers in the developed countries who have also located in Hong Kong, Taiwan, Mexico, and China because of lower labor costs. Mexico and China have emerged in recent years as leading producers in the small appliance industry.

The three major companies in the Canadian appliance industry (with over 85 percent of Canadian production) are all controlled by U.S. parent companies, and all have ready access to U.S. production designs and process technology. Frigidaire Company of Canada is wholly owned by its U.S. parent, Frigidaire Company, a subsidiary of AB Electrolux of Sweden. Ingus and Camco (located in Canada) both have significant Canadian ownership and operate at arm's length from their U.S. parents, Whirlpool and General Electric (GE), respectively. According to Canadian industry officials, the majority of their establishments are located in the Provinces of Ontario and Quebec.

Industry sources have indicated that the Canadian market is roughly one-tenth the size of the U.S. market. In 1990, Canadian consumption of these products was estimated at nearly $2.0 billion. Import penetration is estimated to be nearly 35 percent of Canadian consumption. The United States supplied over 50 percent of the value of Canadian imports of the products covered in this summary. Other major foreign suppliers to Canada were Japan, Taiwan, and Hong Kong.

The European appliance industry is less concentrated than that in the United States. Although the top 10 European manufacturers account for 80 percent of production, Europe has many more manufacturers in most appliance categories than does the United States. For example, there are 30 washing machine manufacturers in Europe, compared with just 6 in the United States.[11] Industry sources estimate that there are over 100 firms manufacturing electric appliances in the European Community.[12] In major appliances, Electrolux, Whirlpool/Philips, Bosch-Siemens, and Merloni dominate the European market. The leaders in the small appliance market are Braun, Moulinex/Krup, Philips, and SEB/Rowenta.

According to the Global Appliance Report (GAR),[13] the EC produced an estimated 45 million major appliance units and nearly 133 million small appliance units in 1989. The GAR reported that while EC's consumption of electric appliances has grown by 73 percent since 1980, EC's share of the market has dropped from 93 percent to 86 percent during the same period. The leading export markets for EC electric appliances were countries in the European Free Trade Association (EFTA), with about a 41-percent share. North America accounted for approximately 15 percent of EC's exports in 1989. Japan was the leading supplier of imports to the EC market, with a 38-percent share, and North America supplied about 12 percent of the market.

In 1989, Germany's production of major appliances (ranges, refrigerators, freezers, dish washers, washing machines, and clothes dryers) was estimated to be 11.2 million units. Of the total units produced, 5.3 million units were exported. Imports of these products by Germany amounted to 3.6 million units, or 55 percent of consumption.[14]

The industry producing household appliances in Japan consisted of over 50 manufacturers, with an estimated 140,000 employees, according to the Japanese electrical manufacturers' association. The Japanese appliance industry is highly concentrated, with six companies (Matsushita, Hitachi, Toshiba, Sanyo, Mitsubishi, and Sharp) accounting for 95 percent of production.[15] In 1990, Japan's production of electric appliances was valued at an estimated $2.7 billion. Of the total output, 14 percent of these items were exported. The largest export market regions for Japanese household appliances are Asia (10.4 percent), Europe (6.2 percent), North America (6 percent), and

[10] *Asian Wall Street Journal*, Apr. 22, 1991, p. 5.

[11] U.S. Department of Commerce, *U.S. Industrial Outlook, 1990.*

[12] *The Economist*, July 1991, p. 70.

[13] Global Appliance Report, "The European Appliance Market", *Association of Home Appliance Manufacturers*, June 1991, p. 1

[14] *Appliance*, May 1991, p. 21.

[15] Nick Garnett, "The slumbering giant stirs", *Financial Times*, Dec. 1990.

the Middle East (4.2 percent).[16] The Japanese market-penetration ratio of such appliances such as refrigerators, washing machines, and vacuum cleaners is above 90 percent. Japan's imports of household appliances increased from $49.5 million in 1988 to $75.1 million in 1990, or by 52 percent.[17] Small appliances and parts from newly industrialized countries such as Taiwan, Korea, Malaysia, Thailand, and China were the bulk of the imports. However, there has been a minor surge in imports of Western-made appliances in Japan. For example, imports of refrigerators and freezers increased by 177 percent in 1990 over that reported in 1988, and imports of electric shavers increased by 112 percent in the same reporting period.[18] Imports as a share of Japan's production were nearly 3 percent in 1990.

Traditionally, companies producing major electric appliances have been located in the largest consuming markets. However, Korea has emerged as a leading world supplier of appliances (microwave ovens) despite the lack of a sizable domestic consuming market. Korea has gained prominence in the world market because multinational corporations and large retail stores, primarily from the United States and Japan, have established joint ventures with Korean manufacturers to produce appliances and appliance parts for consumption in other countries.

Limited disposable income and a shortage of electric power supply restricts the production and saturation of appliances in most less developed countries. Limited access to capital resources exacerbates the problem of expanding electricity capacity. However, the increase in industrialization and urbanization in some developing countries, such as Mexico and the Asian-Pacific countries, will likely stimulate growth in housing construction, thereby resulting in increased demand for household appliances. The market penetration for most of these products is lower in developing and newly developing countries than in the United States.

The cost of labor is a prime factor affecting competitive advantage in the manufacture of electric household appliances. Many producers in newly developed and developing countries, such as China, Hong Kong, Taiwan, and Mexico, have mastered existing technology and have adopted the latest production methods for most household appliances, thereby enabling them to produce a competitive product in the world market. Manufacturers in newly developed and developing countries enjoy lower labor cost than those in industrialized nations (table B-1). However, as noted earlier, most of the world producers of these products have affiliates or subsidiaries in these countries, and thus also benefit from low labor costs.

Labor cost differences are not significant if the competitive advantages of manufacturing products in the United States are compared with those of other developed nations. Although the U.S. infrastructure is equal or superior to those of other competitive countries, especially to the newly developed nations, inland freight cost differences are not a significant factor in the cost of these products.

U.S. TRADE MEASURES

Tariff Measures

Table 1 provides the 1992 Harmonized Tariff Schedule of the United States (HTS) column 1-rate of duty, preferential rates of duty, and U.S. exports and imports in 1991, for each of the 8 digit HTS subheadings applicable to electric appliances. Appendix A includes an explanation of tariff and trade agreement terms. In 1991, approximately 20 percent of all electric appliances entered duty free. Sixteen percent of major electrical household appliance imports entered the United States duty free, while nearly 19 percent of small household appliances and certain heating equipment were duty free. The aggregated trade-weighted average rate of duty for all imported items, based on 1991 data, was 2.6 percent ad valorem, down from 4.5 percent ad valorem in 1987. There were no significant classification criteria adjustments or substantive changes that affected trade in electrical household appliances and certain heating equipment as a result of the conversion from the Tariff Schedules of the United States (TSUS) to the HTS in 1989.

U.S. Government Trade-Related Investigations

On June 10, 1991, Menumaster, Inc., filed a petition under the U.S. antidumping law with the U.S. Department of Commerce and the U.S. International Trade Commission alleging that commercial microwave ovens, assembled or unassembled, from Japan, are being or are likely to be sold in the United States at less than fair value (LTFV). The Commission instituted a preliminary injury investigation, and Commerce subsequently instituted an investigation. On July 3, 1991, the Commission, by a vote of 3 to 1, made a negative injury determination.[19] As a result, Commerce terminated its investigation without making a finding with respect to dumping.

FOREIGN TRADE MEASURES

The major U.S. trading partners for electric household appliances are Canada, China, Japan, Mexico, Korea, and Taiwan. U.S. exports enter Canada at rates significantly lower than the Canadian most-favored-nation (MFN) rates, ranging between free and 12.6 percent ad valorem (table B-9). Taiwan tariffs on these products range from 10 percent

[16] "Portrait of the Japanese Appliance industry," *Appliance,* Dec. 1991, p. 42.
[17] Ibid.
[18] Ibid.

[19] U.S. International Trade Commission, *Commercial Microwave Ovens, Assembled or Unassembled, from Japan* (investigation No. 731-TA-523 (preliminary)), USITC publication 2405, July 1991.

Table 1
Electric household appliances and certain heating equipment: Harmonized Tariff Schedule subheading; description; U.S. col. 1 rate of duty as of Jan. 1, 1992; U.S. exports, 1991; and U.S. imports, 1991

HTS subheading	*Description*	*Col. 1 rate of duty as of Jan. 1, 1992*		*U.S. exports 1991*	*U.S. imports 1991*
		General	*Special*[1]	*1,000 dollars*	
8418.10.00	Combined refrigerator–freezers, fitted with separate external doors, electric or other	2.9%	Free (A,B,E,IL) 2% (CA)	226,672	5,463
8418.21.00	Refrigerators, household compression–type,	2.9%	Free (A,E,IL) 2% (CA)	225,497	110,208
8418.22.00	Refrigerators, household absorption–type, electrical,	2.9%	Free (A,E,IL) 1.1% (CA)	2,730	25,346
8418.29.00	Refrigerators, household type, electric or other, other than those of subheading 8421.00 and 8418.22.00	2.9%	Free (A,E,IL) 2% (CA)	21,018	15,387
8418.30.00	Freezers of the chest type, not exceeding 800 liters capacity, electric or other	2.9%	Free (A,C,E,IL) 2% (CA)	21,178	34,156
8418.40.00	Freezers of the upright type, not exceeding 900 liters capacity, electric or other	2.9%	Free (A,C,E,IL) 2% (CA)	20,026	14,214
8422.11.00	Dishwashing machines of the household type	3.6%	Free (A,E,IL) 2.5% (CA)	60,154	9,340
8422.90.05	Parts of dishwashing machines	3.6%	Free (A,E,IL) 2.5% (CA)	9,064	12,458
8450.11.00(pt)	Household– or laundry–type washing machines, each of a dry linen capacity not exceeding 10 kg, fully automatic	2.8%	Free (A,E,IL) 1.9% (CA)	211,601	15,888
8450.90.00(pt)	Parts for household– or laundry–type washing machines	5.1%	Free (A,E,IL) 3.5% (CA)	20,776	11,000
8451.21.00(pt)	Drying machines, each of a dry linen capacity not exceeding 10 kg	5.1%	Free (A,E,IL) 3.5% (CA)	44,640	12,400
8451.90.00(pt)	Parts of drying machines	5.1%	Free (A,CA,E,IL)	13,752	1,832
8509.10.00	Electromechanical vacuum cleaners, with self–contained electric motor, for domestic uses	3.4%	Free (A,E,IL) 2.3% (CA)	174,450	87,911
8509.20.00	Electromechanical floor polishers, with self–contained electric motor, for domestic uses	3.4%	Free (A,E,IL) 1.3% (CA)	7,295	1,560
8509.30.00	Electromechanical kitchen waste disposers (disposals), with self–contained electric motor, for domestic uses	4.2%	Free (A,E,IL) 1.6% (CA)	16,034	103
8509.40.00	Electromechanical food grinders, processors and mixers; fruit or vegetable juice extractors; with self–contained electric motor, for domestic use	4.2%	Free (A,E,IL) 2.9% (CA)[2]	47,269	271,868
8509.80.00	Electromechanical domestic appliances nesi, with self–contained electric motor	4.2%	Free (A,E,IL) 2.9% (CA)	68,073	152,112
8509.90.20	Parts of electromechanical domestic vacuum cleaners	3.4%	Free (A,E,IL) 2.3% (CA)	116,180	64,051
8509.90.30	Parts of electromechanical domestic floor polishers	3.4%	Free (A,E,IL) 1.3% (CA)	1,755	372
8509.90.40	Parts of electromechanical domestic appliances nesi	4.2%	Free (A,E,IL) 2.9% (CA)	45,951	27,097
8510.10.00	Shavers, with self–contained electric motor	4.4%	Free (A,E,IL) 1.7% (CA)	10,187	148,239
8510.20.00	Hair clippers, with self–contained electric motor	4.0%	Free (A,E,IL) 2.8% (CA)	15,293	9,574

See footnotes at end of table.

Table 1—Continued
Electric household appliances and certain heating equipment: Harmonized Tariff Schedule subheading; description; U.S. col. 1 rate of duty as of Jan. 1, 1992; U.S. exports, 1991; and U.S. imports, 1991

HTS subheading	*Description*	*Col. 1 rate of duty as of Jan. 1, 1992*		*U.S. exports 1991*	*U.S. imports 1991*
		General	*Special*[1]	*1,000 dollars*	
8510.90.10	Blades and cutting heads of shavers with self–contained electric motor	3.4%	Free (A,E,IL) 2.3% (CA)	4,242	10,374
8510.90.20	Parts of shavers with self–contained electric motor, other than blades and cutting heads	4.4%	Free (A,E,IL) 3% (CA)	2,720	6,265
8510.90.30	Parts of hair clippers with self–contained electric motor	4.0%	Free (A,E,IL) 2.8% (CA)	200	127
8516.10.00	Electric instantaneous or storage water heaters and immersion heaters	3.7%	Free (A,B,E,IL) 2.5% (CA)[3]	25,562	25,914
8516.21.00	Electric storage heating radiators	3.7%	Free (A,E,IL) 1.4% (CA)	436	4,359
8516.29.00	Electric space heating apparatus and electric soil heating apparatus, other than storage heating radiators	3.7%	Free (A,B,E,IL) 1.4% (CA)	20,289	88,357
8516.31.00	Electrothermic hair dryers	3.9%	Free (A,E,IL) 1.5% (CA)	12,220	139,333
8516.32.00	Electrothermic hairdressing apparatus other than hair dryers	3.9%	Free (A,E,IL) 1.5% (CA)	3,012	84,489
8516.40.20	Electric flatirons, travel type	2.2%	Free (A,E,IL) 0.8% (CA)	5,984	28,235
8516.40.40	Electric flatirons, other than travel type	5.6%	Free (A,E,IL) 2.2% (CA)	5,984	124,799
8516.50.00	Microwave ovens of a kind used for domestic purposes	4.0%	Free (A,E,IL) 2.8% (CA)	80,378	400,461
8516.60.40	Electrothermic cooking stoves, ranges and ovens (excluding microwave ovens), of a kind used for domestic purposes	Free		50,989	98,491
8516.60.60	Electrothermic cookers, cooking plates, boiling rings, grillers and roasters, nesi, of a kind used for domestic purposes	5.3%	Free (A,E,IL) 3.7% (CA)	31,648	33,651
8516.71.00	Electrothermic coffee or tea makers, for domestic purposes	5.3%	Free (A,E,IL) 2.1% (CA)	17,607	162,107
8516.72.00	Electrothermic toasters, for domestic purposes	5.3%	Free (A,CA,E,IL)	17,675	49,196
8516.79.00	Electrothermic appliances nesi, of a kind used for domestic purposes	5.3%	Free (A,E,IL) 3.7% (CA)	29,450	171,941
8516.80.80	Electric heating resistors, nesi	3.9%	Free (A,B,E,IL) 2.7% (CA)	14,719	36,332
8516.90.20	Parts of electrothermic cooking stoves, ranges and ovens, domestic	Free		16,796	70,328
8516.90.40	Parts of electric heaters or heating apparatus of subheading 8516.10, 8516.21 or 8516.29	3.7%	Free (A,B,E,IL) 1.4% (CA)	38,507	10,004
8516.90.60	Parts of electric and electrothermic appliances of the kind used for domestic purposes, nesi	3.9%	Free (A,E,IL) 2.7% (CA)	61,840	72,831

[1] Programs under which special tariff treatment may be provided, and the corresponding symbols for such programs as they are indicated in the "Special" subcolumn, are as follows: Generalized System of Preferences (A); Automotive Products Trade Act (B); Agreement on Trade in Civil Aircraft (C); United States–Canada Free–Trade Agreement (CA); Caribbean Basin Economic Recovery Act (E); and United States–Israel Free Trade Area (IL).
[2] Duty suspended on certain articles originating in the territory or Canda. See subheading 9905.85.35.
[3] Equipment originating in the territory of Canada, intended for use in the repair or maintenance of certain water subjected to accelerated stage rate reduction. See heading 9905.

Source: U.S. exports and imports compiled from data of the U.S. Department of Commerce.

to 25 percent ad valorem. EC MFN tariff rates are slightly higher than similar U.S. tariffs, ranging between 3 percent and 5.1 percent ad valorem. All electric household appliances entering Mexico are subject to a 20-percent Mexican general tariff. The only exceptions are "special" duty rates applicable to Latin American Integration Association (LAIA/Asociación Latinamerica de Integración (ALADI)) countries. The LAIA/ALADI rates are not standard for all member countries and vary by country within a commodity classification. There are no known significant foreign nontariff barriers to trade in electric household appliances.

U.S. MARKET

Consumption

The value of apparent U.S. consumption of all electric household appliances covered in this summary increased, in current dollars, from an estimated $17.2 billion in 1987 to an estimated $18.1 billion in 1988, before declining to $16.9 billion in 1991 (table 2). Imports, as a percent of apparent U.S. consumption, increased to 15.7 percent in 1991, from 12.4 percent in 1987.

Consumption of small electric household appliances and certain heating equipment increased from $6.5 billion in 1987 to $6.8 billion in 1991, representing an average annual growth rate of 2 percent (table 3). The overall growth in the consumption of these products was stimulated by the frequent introduction of new electric appliances or variations in previously produced models. Because some of these products are inexpensive and energy efficient but not highly durable, consumers are encouraged to buy more than one model or to replace older models more frequently.

Estimated apparent U.S. consumption of major electric household appliances declined irregularly to $10 billion in 1991, from $10.7 billion in 1987, or by over 6 percent (table 4). The decrease in consumption experienced during this period was generally attributable to declines in new housing starts and to slower growth in real personal disposal income, as consumer demand for major household products is directly related to the housing market, demographics, and disposable income.

Price competition is particularly keen in the U.S. market for electric household appliances. In the market for small electric appliances, imports tend to be concentrated in the lower price ranges, but with little discernible difference in quality and features compared with U.S.-made products. However, imports of what are considered to be more sophisticated and higher priced appliances, such as toasters, irons, food processors, and vacuum cleaners, are on the increase. The bulk of these imported items are believed to be from subsidiaries of domestic manufacturers.

Except for producers of microwave ovens, foreign competitors are generally not a factor in the major electrical appliance market in the United States. Recent U.S. demographic changes, such as a reduction in the size of living quarters and the increase in the number of smaller families, however, have triggered an increase in the demand for compact, energy-efficient major appliances. Foreign producers are oriented toward smaller and less complex appliances capable of fitting into these smaller households. Therefore, foreign producers are believed to have the capability to supply an increase in demand for these products in the U.S. market.

Production

The estimated value of U.S. shipments of electric household appliances increased from $15.8 billion in 1987 to $16.8 billion in 1989 before declining to $16 billion in 1991. However, the overall growth rate of .3 percent during this period, due principally to an increase in prices and the cost of raw materials, somewhat masks the significant decline in units sales, especially for major appliances. Total unit shipments of major appliances declined to 56.6 million in 1989, from 56.9 million in 1988, before dropping to 50.8 million in 1991 (figure 1). According to industry statistics, the decline in unit shipments of major home appliances occurred in nearly every appliance category during 1988-91, with electric cooking stoves and

Table 2
Electric household appliances and certain heating equipment: Producers' shipments[1], exports of domestic merchandise, imports for consumption, and apparent U.S. consumption, 1987-91

Year	Producers' shipments[2]	Exports	Imports	Apparent consumption[2]	Ratio of imports to consumption[2]
	Million dollars				Percent
1987	15,829	741	2,126	17,214	12.4
1988	16,398	1,082	2,367	17,683	13.4
1989	16,798	1,299	2,626	18,124	14.5
1990	16,370	1,555	2,510	17,325	14.5
1991	16,043	1,820	2,648	16,871	15.7

[1] Shipment data may be slightly overstated because figures include some nonelectric appliances.
[2] Estimated by the staff of the U.S. International Trade Commission.
Note.—Because of rounding, figures may not add to totals shown.
Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Table 3
Small electric household appliances and certain heating equipment: Producers' shipments[1], exports of domestic merchandise, imports for consumption, and apparent U.S. consumption, 1987-91

Year	Producers' shipments[2]	Exports	Imports	Apparent consumption[2]	Ratio of imports to consumption[2]
	Million dollars				Percent
1987	5,756	297	1,045	6,504	16.1
1988	6,053	424	1,402	7,031	19.9
1989	6,177	569	1,622	7,230	22.4
1990	6,121	698	1,604	7,027	22.8
1991	5,818	763	1,769	6,824	25.9

[1] Shipment data may be slightly overstated because figures include some nonelectric appliances.
[2] Estimated by the staff of the U.S. International Trade Commission.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

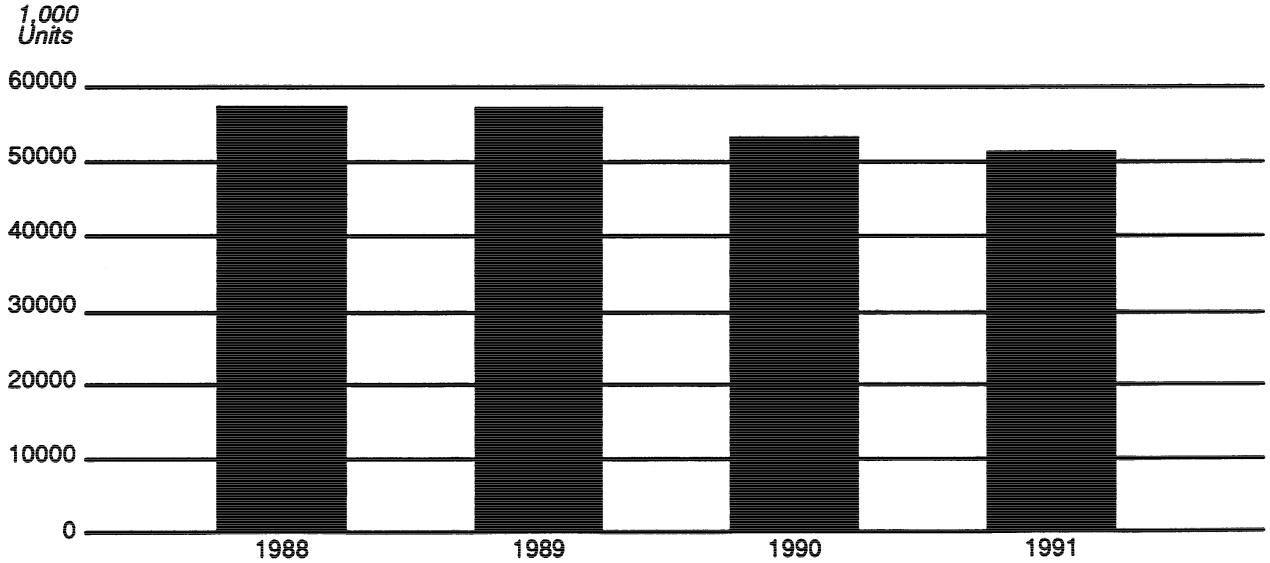
Table 4
Major electric household appliances: Producers' shipments[1], exports of domestic merchandise, imports for consumption, and apparent U.S. consumption, 1987-91

Year	Producers' shipments[2]	Exports	Imports	Apparent consumption[2]	Ratio of imports to consumption[2]
	Million dollars				Percent
1987	10,073	444	1,081	10,710	10.1
1988	10,345	658	965	10,652	9.1
1989	10,620	730	1,004	10,894	9.2
1990	10,249	858	906	10,297	8.8
1991	10,225	1,057	879	10,047	8.7

[1] Shipment data may be slightly overstated because figures include some nonelectric appliances.
[2] Estimated by the staff of the U.S. International Trade Commission.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Figure 1
Major electric appliances:[1] U.S. factory unit shipments, 1988-91



[1] Include cooking stoves and ranges, home laundry equipment, dishwashers, disposals, trash compactors, electric warm air furnaces, water heaters, refrigerator/freezers and freezers.

Source: Derived from statistics compiled by *Aham and Apppliance*, March 1991, p. 14, March 1990, p. 22.

ranges recording the sharpest drop.[20] The decline in unit shipments of cooking stoves and ranges was primarily due to reduced shipments of microwave ovens and electric ranges. Domestic demand for microwave ovens has dropped because the level of household penetration associated with these appliances has increased to nearly complete saturation. The overall decline in unit shipments of major appliances was due largely to the decrease in sales of replacement appliances. The industry, which was operating at a record level during 1986-87, was able to satisfy most of the demand of the replacement market. According to industry sources, replacement appliances account for over 50 percent of domestic sales.

Imports as a share of domestic shipments for all electric appliances rose to 16.5 percent in 1991, from 13.4 percent in 1987 (figure 2-4). In major appliances, imports as a share of domestic shipments trended downward from 10.7 percent in 1987 to 8.6 percent in 1991. The decline during this period reflected the decrease in shipments of microwave ovens from Asian countries.

Imports

Import Levels And Trends

U.S. imports of all electric household appliances covered in this summary grew from $2.1 billion in 1987 to $2.6 billion in 1991, or by 25 percent (table 5). This represented an average annual growth rate of nearly 7 percent during the reporting period. U.S. imports of small electric household appliances rose to $1.8 billion in 1991 from $1.0 billion in 1987, representing an overall increase of nearly 69 percent. However, total import value of major appliances trended downward during 1987–91. A share of the decline is believed to be due to manufacturers who shifted production operations of parts or switched suppliers from Asian-Pacific countries to U.S. operations. Developing and newly developed nations supplied nearly 60 percent of the imports during this period. These countries have benefited from the declining competitiveness of the developed countries in the U.S. market caused partially by labor cost disparities.

China, the leading foreign supplier in 1991, has emerged as a formidable competitor in the U.S. import market. With less than 4 percent of U.S. imports in 1987, China increased its share to 21 percent ($556 million) in 1991; prior to 1987, China was not a factor in the U.S. market. Other important suppliers were Mexico, Taiwan, Korea, and Japan. Imports from China were primarily electric space heaters and other small heating apparatus. Entries from Taiwan consisted principally of hair dryers and hairdressing apparatus and electric space heaters. Imports from Mexico were predominately a variety of electromechanical and electrothermic appliances as well as small refrigerators. Imports from Japan were mainly vacuum cleaners. U.S. imports of major electric appliances declined to $879 million in 1991, from $1.1 billion in 1987, representing a 19-percent decrease. U.S. imports of electric stoves and ranges recorded a substantial decrease during this period (table 5). A large share of the decline in this category was attributed to the reduction of shipments of microwave ovens from such Pacific Basin countries as Japan, Korea, and Singapore. Microwave ovens accounted for nearly 70 percent of imports of all electric cooking stoves and ranges during the period. Japan's once-leading position in these products has been displaced by Korea, whose exports to the United States consisted primarily of microwave ovens.

According to industry experts, the continued decline in U.S. imports of microwave ovens is probably the result of two factors. One, Japanese producers have shifted production away from Japan to manufacturing plants of subsidiaries in the United States and, to a lesser degree, to developing nations outside the Pacific Basin. Two, as noted earlier, the saturation level of the U.S. microwave oven market is nearing 80 percent, indicating a slowing of consumer purchases.

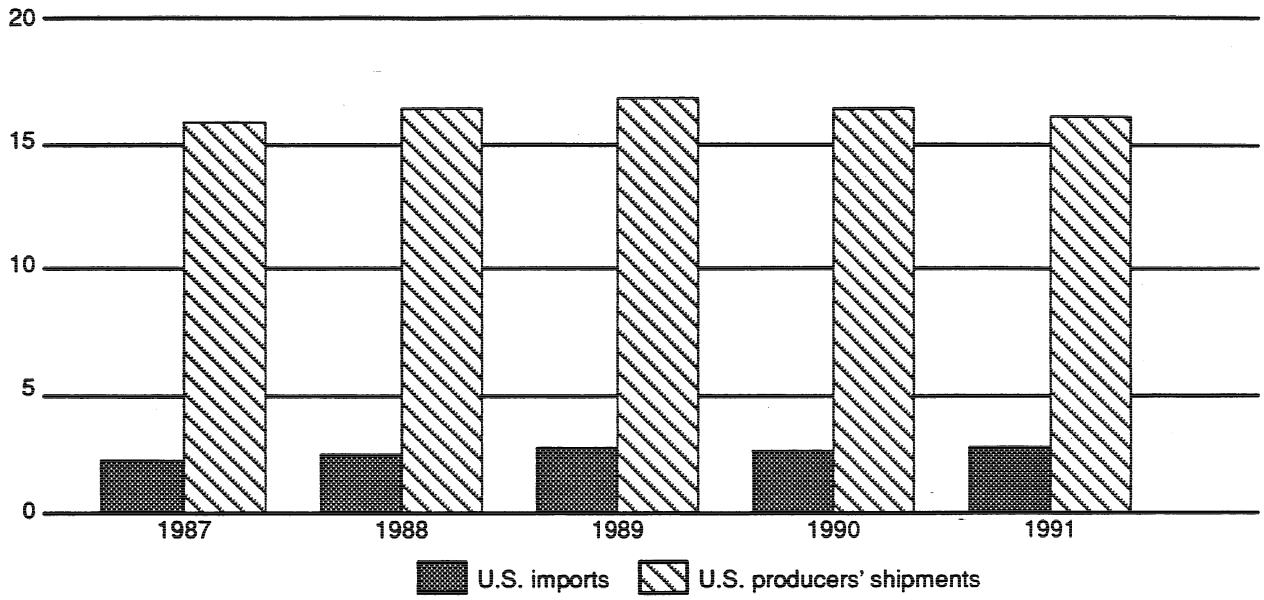
U.S. imports of electric household appliances are generally the same in quality, reliability, and price as U.S. shipments of these products and exhibit the same product mix—with the exception of personal care products. Virtually all of the personal care products, such as hair curlers, hair dryers, and massage machines, sold in the United States are sourced from Asia, with the exception of electric shavers, which come mainly from the Netherlands and Germany. Certain foreign companies use lower wage workers, U.S. technology, and sometimes U.S.-manufactured parts to assemble components and finished products that effectively compete in the U.S. market. A large portion of U.S. imports from Mexico is the result of rationalized U.S. assembly operations.

Principal Import Suppliers And U.S. Importers

The leading suppliers of appliances to the United States in 1991 were China, Korea, Japan, Mexico, and Taiwan (tables B-2- to B-4). Korea, Hong Kong, and Taiwan, however, recorded declines in the value of U.S. imports in 1991 compared with that in 1989. China and Mexico, on the other hand, increased their share of the U.S. market from 15 and 10 percent, respectively, in 1989 to 21 and 15 percent in 1991 (table B-8). In recent years, U.S. imports from Japan have been losing ground to imports from low-wage developing countries as well as to production from Japanese-owned U.S. plants. Hong Kong and Taiwan appear to have been affected by the loss of eligibility for duty-free treatment under the Generalized System of Preferences (GSP) beginning in 1989. Korea and Singapore, in addition to losing their benefits under the GSP, were also affected by increased labor costs.

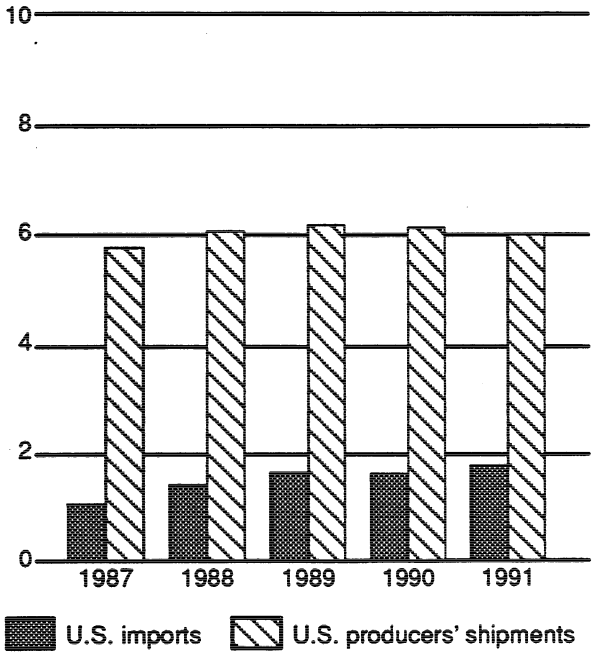
[20] *Major Home Appliance Industry Factbook*, Association of Home Alliance Manufacturers (AHAM), 1990/91.

Figure 2
Electric household appliances and certain heating equipment: U.S. imports and producers' shipments, 1987-91



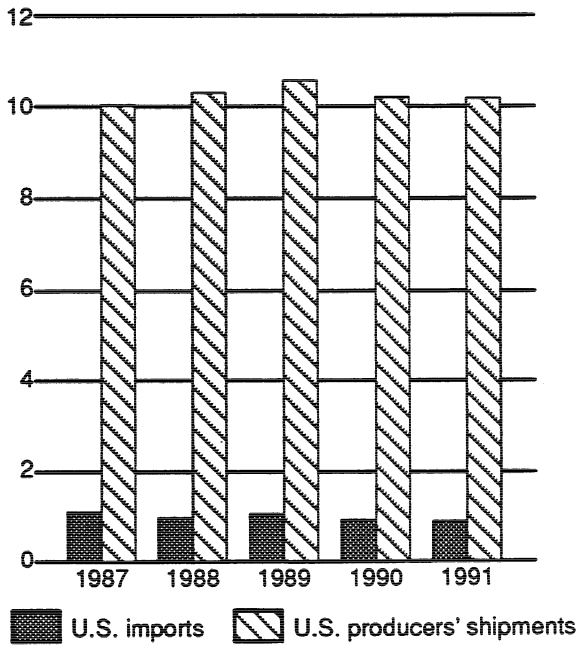
Source: Compiled from official statistics of the U.S. Department of Commerce.

Figure 3
Small electric household appliances and certain heating equipment: U.S. imports and producers' shipments, 1987-91



Source: Compiled from official statistics of the U.S. Department of Commerce.

Figure 4
Major electric household appliances: U.S. imports and producers' shipments, 1987-91



Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 5
Electric household appliances, certain heating equipment, and parts thereof: U.S. imports for consumption, by major product classes, 1987–91

Item	1987	1988	1989	1990	1991
	Million dollars				
Small electric appliances:					
Vacuum cleaners, floor polishers, and parts	114	124	169	157	154
Electromechanical appliances and parts	215	291	344	328	449
Electric shavers, hair-clippers, scissors, and parts	96	157	159	153	175
Electrothermic appliances and parts	532	695	793	847	872
Certain heating equipment	88	135	157	119	119
Subtotal	1,045	1,402	1,622	1,604	1,769
Major electric appliances:					
Electric dishwashers and parts[1]	11	8	7	10	12
Laundry equipment and parts	49	40	43	45	51
Refrigerator-freezers and parts	245	213	210	214	203
Electric cooking stoves, ranges, ovens, and parts (including microwave)	776	704	744	637	613
Subtotal	1,081	965	1,004	906	879
Total	2,126	2,367	2,626	2,510	2,648

[1] Estimated by the staff of the U.S. International Trade Commission.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

A common practice for some of the large multinational corporations is to take advantage of GSP benefits afforded to developing countries by establishing affiliations with manufacturing facilities in such countries. When a developing country loses GSP benefits, the corporations, to avoid duties on the imported products, will usually switch operations without much difficulty to other GSP beneficiaries. Other emerging GSP-beneficiary countries, such as Mexico, have the capacity to increase production and to supply nearly all of the lost duty-free imports observed by the U.S. small appliance market.

The total value of all imports entered duty free amounted to $557 million in 1991, up from $220 million reported in 1987. Articles imported from GSP countries accounted for nearly 20 percent of total imports in 1991 and were predominantly electrothermic appliances from Mexico. Mexico accounted for nearly 72 percent of duty-free GSP entries in 1991. Articles imported from CBERA and LDDC countries accounted for less than 1 percent of total imports in 1991. Less than 6 percent of the total value of U.S. imports in 1991 (primarily vacuum cleaner parts from Mexico) were articles entered under HTS subheading 9802.00.80. Principal U.S. importers of electric household appliances are U.S. manufacturers of household appliances, mass retailers of consumer goods, and international trade brokers.

FOREIGN MARKETS

Foreign Market Profile

The leading U.S. export markets for household appliances and certain heating equipment in 1991 were Canada, Mexico, Taiwan, and Japan (tables B-5 to B-7). Exports to Canada and Mexico grew at a faster rate than total exports primarily because of the lowering of tariff barriers between the United States and Canada and of the unilateral duty reduction implemented in Mexico. Under the United States-Canada Free-Trade Agreement, tariffs between Canada and the United States are to be reduced in annual increments and eliminated by 1998. Whereas most tariffs for appliances are being reduced over a 10-year period, some are being reduced over a 5-year period, and others have already been eliminated.

U.S. exports to Mexico have been growing rapidly since 1987, when Mexican tariffs were sharply reduced from over 40 percent to 20 percent on most household appliances. In addition to an increase in U.S. appliances exported for sales to Mexican consumers, exports of appliance parts have also increased sharply

as more Mexican plants have begun to assemble U.S. parts into appliances, often for the U.S. market.

Both GE and Whirlpool have entered into joint-venture agreements with the Mexican companies Mabe and Vitro SA, respectively, to produce appliances in Mexico for sale in the United States under GE and Whirlpool labels. Shipments will begin after these products have been redesigned for the U.S. market.

U.S. Exports

U.S. exports of electric household appliances increased from an estimated $741 million in 1987 to $1.8 billion in 1991, or by nearly 146 percent, representing an average annual gain of over 25 percent (table 6).

U.S. exports of small household appliances increased from $297 million in 1987 to $763 million in 1991, or by nearly 157 percent, representing an average annual growth rate of 27 percent. Although all product classes showed healthy increases during the 5-year period, one product category (electric shavers, hair clippers, scissors, and parts) experienced declines in 1991 compared with the 1990 level (table 6). Vacuum cleaners and floor polishers, the most significant product classes in terms of value, exhibited a sharp increase during this period, from $103 million in 1987 to $300 million in 1991. A large share of the growth in this category can be attributed to an increase in shipments to Japan by U.S. subsidiaries of Japanese companies. Vacuum cleaners accounted for over 43 percent of U.S. exports to Japan.

The value of U.S. exports of major electric home appliances increased from $444 million in 1987 to $1.1 billion in 1991. Among the four product classes of major appliances, the trend in U.S. exports differed. Compared with 1989 exports, exports in 1990 grew by 38 percent for dishwashers, 18 percent for laundry equipment, and 31 percent for refrigerators and refrigerator-freezers (table 6). Although U.S. exports of electric stoves and ovens increased by 13 percent in 1991 over those reported in 1990, they showed a decline in 1991 compared with 1988 levels. Exports of refrigerators and refrigerator-freezers experienced dramatic growth during the 5-year trend, from $143 million in 1987 to $517 million in 1991, or by 262 percent. The near-quadrupling of exports of refrigerators may be attributed primarily to increases in shipments of these products to Taiwan, the third-largest market for U.S. exports. An industry official stated that the demand for top-of-the-line refrigerators in Taiwan has grown nearly tenfold in the past 5 years. As consumer income in other Asian nation rises, the demand for large, U.S.- style household appliances will likely grow.

U.S. TRADE BALANCE

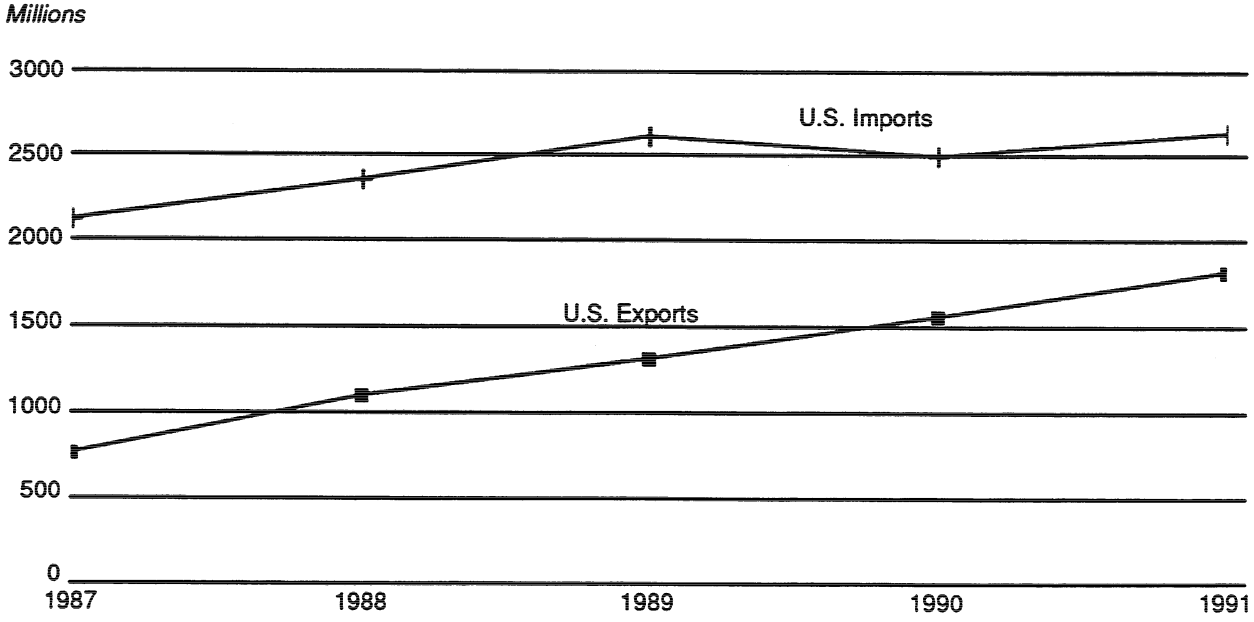
The U.S. trade deficit in electric household appliances decreased to $828 million in 1991 from $1.4 billion in 1987, or by 60 percent (table B-8). The balance of trade in appliances continued to benefit from the current relatively low value of the U.S. dollar in major foreign exchange markets compared with its value during the mid-1980s. However, the most significant effect on the decreasing trade deficit appeared to be Japan's declining exports to the United States. The U.S. trade deficit with Japan for household appliances decreased to $237 million in 1991, from $484 million in 1987, or by 51 percent. The United States' favorable trade balance with Canada during this period rose from $154 million in 1987 to $455 million in 1991, offsetting the increased trade deficit with China, which grew from $82 million in 1987 to $556 million in 1991. In 1991, U.S. imports increased by nearly 5 percent to $2.5 billion, and exports rose by 17 percent to $1.8 billion (figure 5). Since 1987, when appliance exports were one-third of U.S. import levels, exports have tripled, but imports have increased by less than 25 percent. In 1991, U.S. imports exceeded exports by less than 32 percent.

Table 6
Electric household appliances, certain heating equipment, and parts thereof: U.S. exports of domestic merchandise, by major product classes, 1987–91

Item	*1987*	*1988*	*1989*	*1990*	*1991*
			Million dollars		
Small electric appliances:					
Vacuum cleaners, floor polishers, and parts	103	169	238	284	300
Electromechanical appliances and parts	68	98	122	143	177
Electric shavers, hairclippers, scissors, and parts	15	19	26	42	33
Electrothermic appliances and parts	93	116	145	188	207
Certain heating equipment.	18	21	37	41	46
Subtotal	297	424	569	698	763
Major electric appliances:					
Electric dishwashers and parts[1]	19	21	22	50	69
Laundry equipment and parts	103	124	188	247	291
Refrigerator-freezers and parts	143	297	337	402	517
Electric cooking stoves, ranges, ovens, and parts (including microwave)	179	216	183	159	180
Subtotal	444	658	730	858	1,057
Total	741	1,082	1,299	1,555	1,820

[1] Estimated by the staff of the U.S. International Trade Commission.
Note.—Because of rounding, figures may not add to totals shown.
Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Figure 5
Electric household appliances and certain heating equipment, and parts thereof: U.S. imports and exports, 1987-91



Source: Compiled from official statistics of the U.S. Department of Commerce.

APPENDIX A
EXPLANATION OF TARIFF AND TRADE AGREEMENT TERMS

TARIFF AND TRADE AGREEMENT TERMS

The ***Harmonized Tariff Schedule of the United States*** (HTS) replaced the *Tariff Schedules of the United States* (TSUS) effective January 1, 1989. Chapters 1 through 97 are based on the internationally adopted Harmonized Commodity Description and Coding System through the 6-digit level of product description, with additional U.S. product subdivisions at the 8-digit level. Chapters 98 and 99 contain special U.S. classification provisions and temporary rate provisions, respectively.

Rates of duty in the ***general*** subcolumn of HTS column 1 are most-favored-nation (MFN) rates; for the most part, they represent the final concession rate from the Tokyo Round of Multilateral Trade Negotiations. Column 1-general duty rates are applicable to imported goods from all countries except those enumerated in general note 3(b) to the HTS, whose products are dutied at the rates set forth in ***column 2***. Goods from Armenia, Bulgaria, the People's Republic of China, Czechoslovakia, Estonia, Hungary, Latvia, Lithuania, Moldova, Mongolia, Poland, Russia, the Ukraine and Yugoslavia are currently eligible for MFN treatment. Among articles dutiable at column 1-general rates, particular products of enumerated countries may be eligible for reduced rates of duty or for duty-free entry under one or more preferential tariff programs. Such tariff treatment is set forth in the ***special*** subcolumn of HTS column 1. Where eligibility for special tariff treatment is not claimed or established, goods are dutiable at column 1-general rates.

The ***Generalized System of Preferences*** (GSP) affords nonreciprocal tariff preferences to developing countries to aid their economic development and to diversify and expand their production and exports. The U.S. GSP, enacted in title V of the Trade Act of 1974 and renewed in the Trade and Tariff Act of 1984, applies to merchandise imported on or after January 1, 1976, and before July 4, 1993. Indicated by the symbol "A" or "A*" in the special subcolumn of column 1, the GSP provides duty-free entry to eligible articles the product of and imported directly from designated beneficiary developing countries, as set forth in general note 3(c)(ii) to the HTS.

The ***Caribbean Basin Economic Recovery Act*** (CBERA) affords nonreciprocal tariff preferences to developing countries in the Caribbean Basin area to aid their economic development and to diversify and expand their production and exports. The CBERA, enacted in title II of Public Law 98-67, implemented by Presidential Proclamation 5133 of November 30, 1983, and amended by the Customs and Trade Act of 1990, applies to merchandise entered, or withdrawn from warehouse for consumption, on or after January 1, 1984; this tariff preference program has no expiration date. Indicated by the symbol "E" or "E*" in the special subcolumn of column 1, the CBERA provides duty-free entry to eligible articles the product of and imported directly from designated countries, as set forth in general note 3(c)(v) to the HTS.

Preferential rates of duty in the special subcolumn of column 1 followed by the symbol "IL" are applicable to products of Israel under the ***United States-Israel Free-Trade Area Implementation Act*** of 1985, as provided in general note 3(c)(vi) of the HTS. When no rate of duty is provided for products of Israel in the special subcolumn for a particular provision, the rate of duty in the general subcolumn of column 1 applies.

Preferential rates of duty in the special duty rates subcolumn of column 1 followed by the symbol "CA" are applicable to eligible goods originating in the territory of Canada under the ***United States-Canada Free-Trade Agreement***, as provided in general note 3(c)(vii) to the HTS.

Preferential nonreciprocal duty-free or reduced-duty treatment in the special subcolumn of column 1 followed by the symbol "J" or "J*" in parentheses is afforded to eligible articles the product of designated beneficiary countries under the ***Andean Trade Preferences Act*** (ATPA), enacted in title II of Public Law 102-182 and implemented by Presidential Proclamation 6455 of July 2, 1992 (effective July 22, 1992), as set forth in general note 3(c)(ix) to the HTS.

Other special tariff treatment applies to particular ***products of insular possessions*** (general note 3(a)(iv)), goods covered by the ***Automotive Products Trade Act*** (general note 3(c)(iii)) and the ***Agreement on Trade in Civil Aircraft*** (general note 3(c)(iv)), and ***articles imported from freely associated states*** (general note 3(c)(viii)).

The ***General Agreement on Tariffs and Trade*** (GATT) (61 Stat. (pt. 5) A58; 8 UST (pt. 2) 1786) is the multilateral agreement setting forth basic principles governing international trade among its more than 90 signatories. The GATT's main obligations relate to most-favored-nation treatment, the maintenance of scheduled concession rates of duty, and national (nondiscriminatory) treatment for imported products. The GATT also provides the legal framework for customs valuation standards, "escape clause" (emergency) actions, antidumping and countervailing duties, and other measures. Results of GATT-sponsored multilateral tariff negotiations are set forth by way of separate schedules of concessions for each participating contracting party, with the U.S. schedule designated as schedule XX.

Officially known as "The Arrangement Regarding International Trade in Textiles," the ***Multifiber Arrangement*** (MFA) provides a framework for the negotiation of bilateral agreements between importing and producing countries, or for unilateral action by importing countries in the absence of an agreement. These bilateral agreements establish quantitative limits on imports of textiles and apparel, of cotton and other vegetable fibers, wool, manmade fibers, and silk blends, in order to prevent market disruption in the importing countries—restrictions that would otherwise be a departure from GATT provisions. The United States has bilateral agreements with more than 30 supplying countries, including the four largest suppliers: China, Hong Kong, the Republic of Korea, and Taiwan.

APPENDIX B
STATISTICAL TABLES

Table B–1
Wages: Hourly compensation costs per worker for production workers in electronic and other electrical equipment (SIC 36), for the United States and its major trading partners in electric household appliances, measured in U.S. dollars, 1987–90

(In thousands of dollars)

Country	*1987*	*1988*	*1989*	*1990*
United States	(1)	13.51	13.85	14.19
Canada	11.31	12.67	14.08	15.51
Mexico[2]	.81	.98	1.15	1.25
Hong Kong	1.89	2.08	2.55	2.78
Japan	9.81	11.56	11.55	11.77
Korea	1.60	2.20	3.24	3.65
Singapore	2.21	2.52	2.97	3.57
Taiwan	2.03	2.52	3.21	3.54
France	12.23	12.93	12.47	15.07
Germany	16.32	17.58	17.07	20.66
Italy	12.01	12.66	13.25	15.81
Netherlands	14.37	15.14	14.06	(1)
Sweden	14.55	16.02	16.57	19.59
United Kingdom	8.18	9.60	9.54	11.62

[1] Not available.

[2] Maquiladora (in–bond) export industries. Average of all maquiladora manufacturing industries from a census of all size establishments registered as maquiladoras.

Source: Unpublished data from the U.S. Bureau of Labor Statistics, Nov. 1991.

Table B–2
Electric household appliances and certain heating equipment: U.S. imports for consumption, by principal sources, 1987–91

(In thousands of dollars)

Source	*1987*	*1988*	*1989*	*1990*	*1991*
China	(1)	(1)	392,526	446,231	556,051
Mexico	(1)	(1)	267,812	318,437	401,561
Japan	(1)	(1)	303,105	312,781	300,332
Korea	(1)	(1)	494,765	346,789	258,053
Taiwan	(1)	(1)	208,504	154,348	199,765
Germany	(1)	(1)	155,645	162,269	152,325
Hong Kong	(1)	(1)	153,145	113,095	142,812
Singapore	(1)	(1)	124,442	98,828	105,178
Canada	(1)	(1)	110,788	98,682	100,549
All other	(1)	(1)	414,636	458,543	431,019
Total	2,125,924	2,366,549	2,625,368	2,510,003	2,647,645

[1] Country data provided only for years for which there are actual export data under new Schedule B—suppressed for years for which data were derived from old Schedule B using concordance.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table B–3
Small electric household appliances and certain heating equipment: U.S. imports for consumption, by principal sources, 1987–91

(In thousands of dollars)

Source	*1987*	*1988*	*1989*	*1990*	*1991*
China	(1)	(1)	338,330	435,711	524,373
Mexico	(1)	(1)	213,980	258,647	297,011
Taiwan	(1)	(1)	196,710	137,755	178,472
Hong Kong	(1)	(1)	149,271	109,849	135,651
Japan	(1)	(1)	103,886	119,768	130,857
Germany	(1)	(1)	98,519	113,276	106,712
Netherlands	(1)	(1)	96,240	83,110	80,594
Singapore	(1)	(1)	76,315	70,494	72,333
Italy	(1)	(1)	49,821	47,997	44,531
Canada	(1)	(1)	54,237	37,594	36,840
All other	(1)	(1)	253,914	190,594	161,339
Total	1,044,653	1,401,636	1,631,223	1,604,334	1,768,713

[1] Country data provided only for years where there are actual export data under new Schedule B—suppressed for years in which data were derived from old Schedule B using concordance.
Source: Compiled from official statistics of the U.S. Department of Commerce.

Table B–4
Major electric household appliances: U.S. imports for consumption, by principal sources, 1987–91

(In thousands of dollars)

Source	*1987*	*1988*	*1989*	*1990*	*1991*
Korea	(1)	(1)	417,129	330,863	246,886
Japan	(1)	(1)	199,259	193,012	169,475
Mexico	(1)	(1)	53,932	59,790	104,550
Canada	(1)	(1)	56,551	61,088	63,753
Thailand	(1)	(1)	49,798	59,667	61,240
Germany	(1)	(1)	57,125	48,993	45,613
Sweden	(1)	(1)	44,482	39,224	40,648
Singapore	(1)	(1)	48,127	28,334	32,846
United Kingdom	(1)	(1)	4,196	10,981	31,678
All other	(1)	(1)	73,546	73,817	82,243
Total	1,081,371	964,913	1,004,145	905,769	878,932

[1] Country data provided only for years where there are actual export data under new Schedule B—suppressed for years in which data were derived from old Schedule B using concordance.
Source: Compiled from official statistics of the U.S. Department of Commerce.

Table B–5
Electric household appliances and certain heating equipment: U.S. exports of domestic merchandise, by principal markets, 1987–91

(In thousands of dollars)

Market	*1987*	*1988*	*1989*	*1990*	*1991*
Canada	(1)	(1)	328,027	536,711	596,556
Mexico	(1)	(1)	228,351	281,588	353,523
Taiwan	(1)	(1)	192,800	147,403	115,026
Japan	(1)	(1)	69,029	67,732	80,666
West Germany	(1)	(1)	59,444	67,409	72,799
Saudi Arabia	(1)	(1)	34,103	40,472	69,058
United Kingdom	(1)	(1)	69,622	77,674	66,642
France	(1)	(1)	37,322	33,791	45,258
Australia	(1)	(1)	45,006	42,910	44,910
Korea	(1)	(1)	27,511	32,954	41,580
All other	(1)	(1)	207,458	206,442	333,848
Total	741,241	1,082,332	1,298,673	1,555,086	1,819,866

[1] Country data provided only for years where there are actual export data under new Schedule B—suppressed for years in which data were derived from old Schedule B using concordance.
Source: Compiled from official statistics of the U.S. Department of Commerce.

Table B–6
Small electric household appliances and certain heating equipment: U.S. exports of domestic merchandise, by principal markets, 1987–91

(In thousands of dollars)

Market	*1987*	*1988*	*1989*	*1990*	*1991*
Canada	(1)	(1)	128,066	181,505	188,789
Mexico	(1)	(1)	127,626	159,563	171,728
Germany	(1)	(1)	34,901	42,595	47,541
Japan	(1)	(1)	38,181	39,879	45,982
United Kingdom	(1)	(1)	38,234	41,756	36,944
Argentina	(1)	(1)	1,346	4,209	21,010
Singapore	(1)	(1)	13,007	13,972	18,720
Australia	(1)	(1)	24,410	19,234	17,197
Venezuela	(1)	(1)	8,263	10,573	15,812
All other	(1)	(1)	155,139	184,563	199,286
Total	297,289	424,002	569,173	697,808	763,009

[1] Country data provided only for years in which there are actual export data under the new Schedule B—suppressed for years in which data were derived from the old Schedule B using a concordance.
Source: Compiled from official statistics of the U.S. Department of Commerce.

Table B–7
Major electric household appliances: U.S. exports of domestic merchandise, by principal market, 1987–91

(In thousands of dollars)

Market	*1987*	*1988*	*1989*	*1990*	*1991*
Canada	(1)	(1)	180,051	303,496	366,777
Mexico	(1)	(1)	89,678	106,896	166,871
Taiwan	(1)	(1)	177,345	136,388	104,419
Saudi Arabia	(1)	(1)	24,490	32,672	57,579
France	(1)	(1)	26,111	21,932	31,349
Korea	(1)	(1)	16,649	21,434	29,827
Australia	(1)	(1)	15,502	18,546	23,080
Venezuela	(1)	(1)	8,617	10,081	20,858
Japan	(1)	(1)	16,479	15,469	17,067
Spain	(1)	(1)	14,175	16,927	16,469
All other	(1)	(1)	163,403	174,437	222,561
Total	443,952	657,749	729,500	858,278	1,056,857

[1] Country data provided only for years where there are actual export data under new Schedule B—suppressed for years in which data were derived from the old Schedule B using concordance.
Source: Compiled from official statistics of the U.S. Department of Commerce.

Table B–8
Electric household appliances and certain heating equipment: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1987–91[1]

(Million dollars)

Item	*1987*	*1988*	*1989*	*1990*	*1991*
U.S. exports of domestic merchandise:					
Canada	(2)	(2)	328	536	597
Mexico	(2)	(2)	228	282	354
Japan	(2)	(2)	69	68	81
Korea, Republic of	(2)	(2)	23	27	36
Peoples Republic of China	(2)	(2)	7	2	3
Taiwan	(2)	(2)	164	121	104
Germany	(2)	(2)	59	67	73
Hong Kong	(2)	(2)	12	12	15
Netherlands	(2)	(2)	10	16	15
Singapore	(2)	(2)	14	16	17
All other	(2)	(2)	385	408	525
Total	741	1,082	1,299	1,535	1,820
EC–12	(2)	(2)	141	216	239
OPEC	(2)	(2)	79	86	153
ASEAN	(2)	(2)	27	31	36
CBERA	(2)	(2)	67	82	92
Eastern Europe	(2)	(2)	2	1	1
U.S. imports for consumption:					
Canada	(2)	(2)	111	99	101
Mexico	(2)	(2)	268	318	402
Japan	(2)	(2)	303	313	300
Korea, Republic of	(2)	(2)	495	347	258
Peoples Republic of China	(2)	(2)	393	446	556
Taiwan	(2)	(2)	208	154	200
Germany	(2)	(2)	156	162	152
Hong Kong	(2)	(2)	153	113	143
Netherlands	(2)	(2)	93	74	75
Singapore	(2)	(2)	124	99	105
All other	(2)	(2)	321	385	356
Total	2,126	2,367	2,625	2,510	2,648
EC–12	(2)	(2)	404	371	368
OPEC	(2)	(2)	3	3	2
ASEAN	(2)	(2)	201	201	214
CBERA	(2)	(2)	4	13	19
Eastern Europe	(2)	(2)	22	24	25
U.S. merchandise trade balance:					
Canada	(2)	(2)	217	437	496
Mexico	(2)	(2)	–40	–36	–48
Japan	(2)	(2)	–234	–245	–267
Korea, Republic of	(2)	(2)	–472	–320	–222
Peoples Republic of China	(2)	(2)	–386	–444	–553
Taiwan	(2)	(2)	–44	–33	–96
Germany	(2)	(2)	–97	–95	–79
Hong Kong	(2)	(2)	–141	–101	–128
Netherlands	(2)	(2)	83	–58	–60
Singapore	(2)	(2)	–110	–83	–88
All other	(2)	(2)	–64	23	169
Total	–1,385	–1,285	–1,326	–975	–828
EC–12	(2)	(2)	–264	–155	–129
OPEC	(2)	(2)	76	83	151
ASEAN	(2)	(2)	–74	170	–178
CBERA	(2)	(2)	63	69	77
Eastern Europe	(2)	(2)	–20	–23	–25

[1] Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export. U.S. trade with East Germany is included in "Germany" but not "Eastern Europe."

[2] Country data provided only for years where are actual export data under now schedule B—suppressed for years for which data were derived from the old schedule B concordance·

Source: Derived from official statistics of the U.S. Department of Commerce.

Table B–9
Electric household appliances and certain heating equipment: Harmonized Tariff Schedule subheading; description; tariff treatment in primary U.S. export markets[1]

(In percent)

HTS		Canada			Taiwan[2]		EC	Mexico[3]
subheading	*Description*	*MFN*	*GPR[4]*	*US*	*Column I*	*Column II*	*(MFN)*	*(General)*
8418.10.00	Combined refrigerator freezers fitted with separate external doors	12.6	8	8.8	15	20	3.8	20
8418.21.00	Refrigerators, household compression–type electric or other, other than those of subheading 8418.10	12.6	8	9.8	15	20	3	20
8418.22.00	Refrigerators, household absorption–type electric or other, other than those of subheading 8418.10	12.6	8	5.0	15	20	3.8	20
8418.29.00	Refrigerators, household type, electric or other, other than those of subheading 8418.10	12.5	8	8.7	15	20	3.8	20
8418.30.00	Freezers of the chest type, not exceeding 800 liters capacity, electric or other	12.5	2.5	8.7	15	20	3.8	20
8418:99.00	Parts for refrigerators, freezers, and other refrigerating or freezing equipment	10.2	6.5	7.1	15	20	3	20
8422.11.00	Dishwashing machines of the household type	Free	Free	Free	15	10	4.9	20
8422.90.05	Parts of dishwashing machines	Free	Free	Free	15	10	3.5	20
8450.11.00	Household– or laundry–type washing machines, each of a dry linen capacity not exceeding 10 kg, fully automatic	12.5	8	7.2	20	10	5.1	20
8450.90.00	Parts for household– or laundry–type washing machines	12.6	8	8.8	20	10	5.1	([5])
8451.21.00	Drying machines, each of a dry linen capacity not exceeding 10 kg.	12.5	8	8.7	10	7.5	3.8	20
8509.10.00	Electromechanical vacuum cleaners, with self–contained electric motor, for domestic uses	12.5	5	8.7	15	10	4	20
8509.20.00	Electromechanical floor polishers, with self–contained electric motor, for domestic uses	12.5	2.5	5	15	10	4	20
8509.30.00	Electromechanical kitchen waste disposers (disposals), with self–contained electric motor, for domestic uses	12.5	2.5	5	15	10	5.1	20
8509.40.00	Electromechanical food grinders, processors and mixers, fruit or vegetable juice extractors, with self–contained electric motor, for domestic use	12.5	2.5	8.7	15	10	5.1	20

See footnotes at end of table.

Table B–9—Continued
Electric household appliances and certain heating equipment: Harmonized Tariff Schedule subheading; description; tariff treatment in primary U.S. export markets[1]

(In percent)

HTS subheading	Description	Canada			Taiwan[2]		EC	Mexico[3]
		MFN	GPR[4]	US	Column I	Column II	(MFN)	(General)
8509.80.00	Electromechanical domestic appliances nesi, with self–contained electric motor	12.5	2.5	8.7	15	10	5.1	20
8509.90.20	Parts of electromechanical domestic vacuum cleaners.	12.5	5.0	8.7	10	([4])	4	20
8509.90.40	Parts of electromechanical domestic appliances nesi	12.6	2.5	8.8	10		5.1	20
8510.10.00	Shavers, with self–contained electric motor	Free	Free	Free	15	10	4.6	20
8510.20.00	Hair clippers, with self–contained electric motor	Free	Free	Free	15	10	4.1	20
8510.90.10	Blades and cutting heads of shavers with self–contained electric motor	Free	Free	Free	15	10	4.6	20
8510.90.20	Parts of shavers with self–contained electric motor, other than blades and cutting heads	Free	Free	Free	15	10	4.6	20
8510.90.30	Parts of hair clippers with self–contained electric motor	Free	Free	Free	15	10	4.6	20
8516.10.00	Electric instantaneous or storage water heaters and immersion heaters	9.2	6	6.4	25	20	5.3	20
8516.21.00	Electric storage heating radiators	12.5	8	5	25	20	5.3	20
8516.29.00	Electric space heating apparatus and electric soil heating apparatus, other than storage heating radiators	12.5	8	5	25	20	5.6	20
8516.31.00	Electrothermic hair dryers	12.5	2.5	5	25	20	6	20
8516.32.00	Electrothermic hairdressing apparatus other than hair dryers	10.3	6.5	4.1	25	20	6	20
8516.40.20	Electric flatirons, travel type	12.5	8	5	25	20	6	20
8516.40.40	Electric flatirons, other than travel type	12.5	8	5	25	20	6	20
8516.50.00	Microwave ovens of a kind used for domestic purposes	12.6	8	8.8	20	15	5.1	20
8516.60.40	Electrothermic cooking stoves, ranges and ovens (excluding microwave ovens), of a kind used for domestic purposes	12.6	8	8.8	20	15	5.1	20
8516.60.60	Electrothermic cookers, cooking plates, boiling rings, grillers and roasters, nesi, of a kind used for domestic purposes	12.6	8	8.8	20	15	5.1	20
8516.71.00	Electrothermic coffee or tea makers, for domestic purposes	14.3	9.5	5.7	15	10	5.1	20
8516.72.00	Electrothermic toasters, for domestic purposes	12.6	8	Free	25	20	5.1	20
8516.79.00	Electrothermic appliances nesi, of a kind used for domestic purposes	10.3	6.5	7.2	25	20	5.1	20
8516.80.80	Electric heating resistors, nesi	12.5	7.5	7.9	25	20	4.9	20

See footnotes at end of table.

Table B–9—Continued
Electric household appliances and certain heating equipment: Harmonized Tariff Schedule subheading; description; tariff treatment in primary U.S. export markets[1]

(In percent)

HTS		*Canada*			*Taiwan[2]*		*EC*	*Mexico[3]*
subheading	*Description*	*MFN*	*GPR[4]*	*US*	*Column I*	*Column II*	*(MFN)*	*(General)*
8516.90.20	Parts of electrothermic cooking stoves, ranges and ovens, domestic	12.6	8	8.8	20	15	5.1	20
8516.90.40	Parts of electric heaters or heating apparatus of subheading 8516.10, 8516.21 or 8516.29	12.6	8	8	25	20	5.1	20
8516.90.60	Parts of electric and electrothermic appliances of the kind used for domestic purposes, nesi	12.6	8	8	25	20	5.1	20

[1] Tariff duty rates reflect latest available data for each country: Canada, 1991 duty rates; Taiwan, 1990 duty rates; EC, 1991 duty rates; and Mexico, 1990 duty rates.
[2] Most countries, including the United States, are subject to the lower column 2 duty rates. Only the Peoples Republic of China and North Korea are currently accorded the column 1 rate.
[3] All imports into Mexico, including those from the United States, are subject to what here have been called the "General" duties. The only exceptions are "special" duty rates applicable to members of the Latin American Integration Association (LAIA)/Asociacion Latinamerica de Integracion (ALADI)countries (Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay, and Venezuela). The LAIA/ALADI rates are not standardized for the group, rather they exhibit variance by country within a commodity classification.
[4] General Preference Tariff.
[5] Not available.

Source: U.S. Department of Commerce Canada, Mexico, Korea, and People's Republic of China country desk staff; relevant pages from Canadian, Chinese, Korean, and Mexican tariff schedules provided by U.S. Department of Commerce staff.