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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 cocoa, chocolate, and confectionery products 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 agriculture and forest products sector.

USITC publication number	*Publication date*	*Title*
2459 (AG-1)	November 1991	Live Sheep and Meat of Sheep
2462 (AG-2)	November 1991	Cigarettes
2477 (AG-3)	January 1992	Dairy Produce
2478 (AG-4)	January 1992	Oilseeds
2511 (AG-5)	March 1992	Live Swine and Fresh, Chilled, or Frozen Pork
2520 (AG-6)	June 1992	Poultry
2524 (AG-7)	August 1992	Fresh or Frozen Fish
2545 (AG-8)	November 1992	Natural Sweeteners
2551 (AG-9)	November 1992	Newsprint
2612 (AG-10)	March, 1993	Wood Pulp and Waste Paper
2615 (AG-11)	March 1993	Citrus Fruit
2625 (AG-12)	April 1993	Live Cattle and Fresh, Chilled, or Frozen Beef and Veal
2631 (AG-13)	May 1993	Animal and Vegetable Fats and Oils
2635 (AG-14)	June 1993	Cocoa, Chocolate, and Confectionery

[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 presents information on the structure of the U.S. and foreign cocoa, chocolate, and confectionery industries, domestic and foreign tariffs and nontariff measures, and the competitiveness of U.S. producers in both domestic and foreign markets. The scope of this summary includes unprocessed, semiprocessed, and fully processed confectionery products. The unprocessed products are cocoa beans, cocoa bean shells, and other residues. The semiprocessed products are cocoa paste (chocolate liquor), cocoa butter, cocoa powder, chocolate coatings, and confectioners' coatings. The confectionery products (including white chocolate) referred to are articles for sale at retail as candy or confectionery, such as candied nuts, sweetened chocolate and nonchocolate-type confectionery, and other confectionery not specified by kind (n.s.k.). As used herein, the term "candied" includes candied, crystallized, and glacéd.

Semiprocessed cocoa and chocolate products account for 40 percent of the total value of imports, followed by cocoa beans, 32 percent, and confectionery, 28 percent. Confectionery products are largely domestically produced, with imports accounting for 12 percent of U.S. consumption in 1991. This report generally covers the period 1987 through 1991.

In 1991, U.S. shipments of cocoa, chocolate, and confectionery products amounted to $9.6 billion, of which about 70 percent were chocolate and chocolate-type confectionery and about 30 percent were nonchocolate-type confectionery.

U.S. exports are relatively small in relation to domestic U.S. production/shipments, equivalent to 2 and 4 percent, respectively, in 1987 and 1991 (table A-1). Exports, however, have been increasing; they amounted to $124 million in 1987 and $345 million in 1991—an increase of 178 percent over the 5-year period.

PRODUCTION PROCESSES

The processing stages involved in the manufacture of cocoa and chocolate from cocoa beans are shown in figure 1.

Raw product

Cocoa beans, the principal unprocessed product included in this summary, are the seeds contained in the large fruit, or pods, of the cocoa tree. This tree was originally native to the American tropics, but it is now grown in tropical areas throughout the world. Delicate and subject to many diseases, it is usually planted in the shade of banana plants and other tropical trees and produces pods that consist of a thick husk containing 30 to 40 beans. The two major commercial types of cocoa beans, which range in color from brown to purple, depending on the bean type, are the "fine" or "flavor" grade criollo beans and the forastero or "regular" grade beans. The regular grade beans account for about 95 percent of world production of cocoa beans. Cocoa beans are processed into unsweetened chocolate by roasting, shelling, and grinding.

Cocoa bean shells, which have high absorbent qualities and are a source of nitrogen, are used as a mulch and as a conditioner in fertilizers. Other cocoa residues consist of cocoa dust, sweepings, and the expeller cake obtained from pressing the fat from such residues. The expeller cake (also called defatted residues) contains about 10 to 12 percent fat, which is recovered by solvent extraction. These residues are ordinarily used in fertilizers, as are cocoa dust and sweepings. There is little or no trade in these items.

Semiprocessed products

Unsweetened chocolate (cocoa paste), usually referred to as chocolate liquor, is the end product derived from roasting, shelling, and grinding cocoa beans. It is the primary product from which sweetened chocolate, cocoa butter, cocoa powder, and all other cocoa and chocolate products are made.

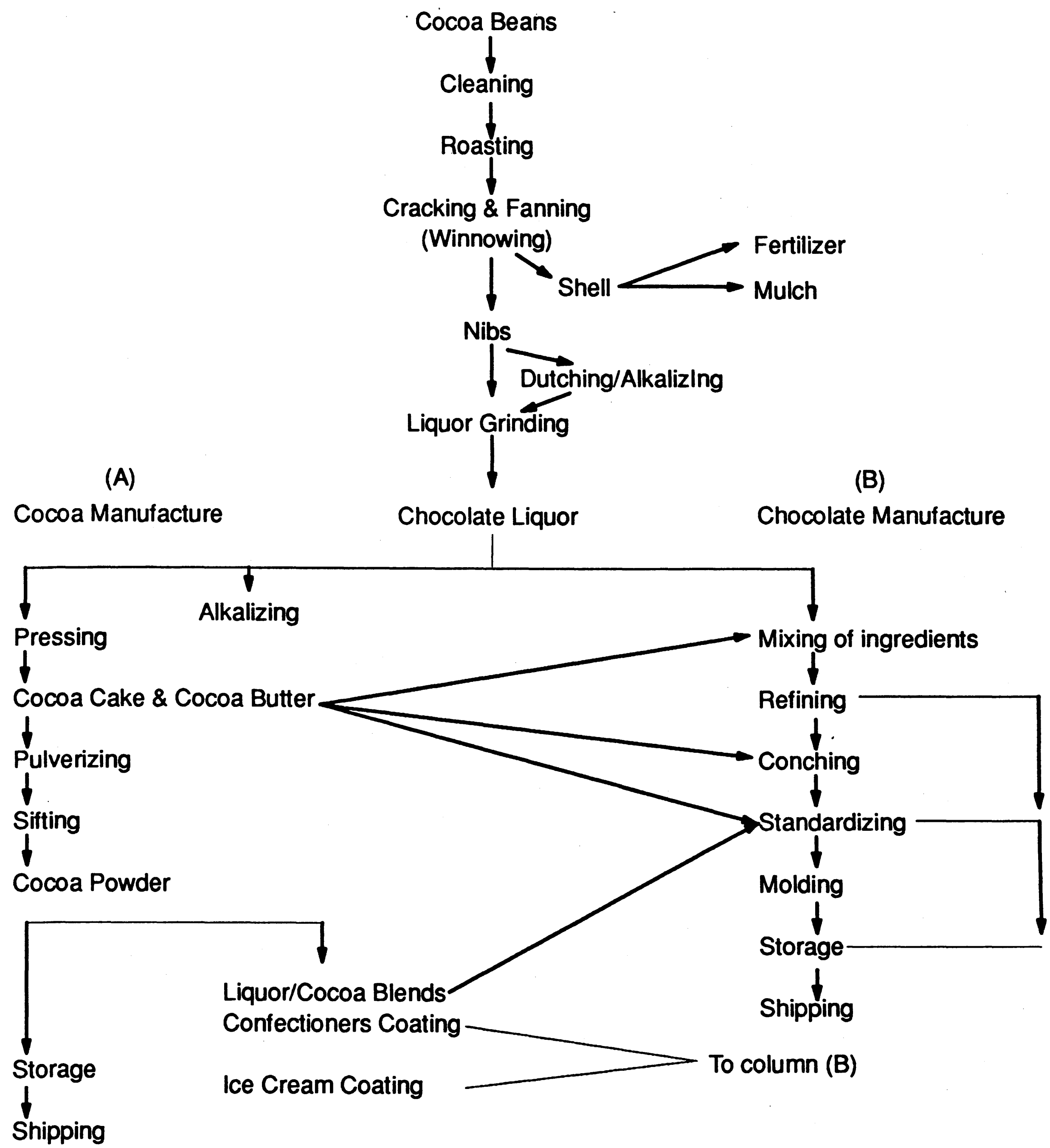
Sweetened chocolate is produced by adding sugar (or substitute sweeteners) and cocoa butter to chocolate liquor; milk solids are also added in the production of milk chocolate. Sweetened chocolate in bulk form (usually in bars or blocks weighing 4.5 kilograms or more each) is referred to as chocolate coating and is used primarily as a coating for various confections and baked goods.

Cocoa butter is fat that has been pressed from chocolate liquor (unsweetened chocolate). The most important use of cocoa butter is as an ingredient in sweetened chocolate. Minor quantities are used also in soaps and toiletries and for various medicinal preparations.

When cocoa butter is removed from chocolate liquor, cocoa cake remains which, when pulverized, becomes cocoa powder. Unsweetened cocoa powder is used in confectioners' coatings, bakery products, dairy products, prepared cocoa beverages, and foods prepared at home. Sweetened cocoa powder is used primarily for beverage cocoa.

Two different types of coatings are produced from chocolate products. First, chocolate coatings are prepared by using chocolate liquor, cocoa butter, and whole milk solids. Second, confectioners' coatings are produced using largely powdered cocoa, vegetable fat, and nonfat milk solids. Confectioners' coatings are of two main types—summer coatings, which are used principally in confectionery and have a higher melting point than chocolate coatings, and ice cream bar coatings, which have a lower melting point than chocolate coatings. Summer coatings have replaced chocolate coatings to some extent on lower priced confectionery, whereas ice cream bar coatings have replaced virtually all chocolate coatings on frozen ice cream bars and similar items. Both types of these confectioners' coatings are generally lower priced than chocolate coatings.

Figure 1
Chocolate manufacture



Source: Chocolate Manufacturers Association.

Chocolate crumb is an incompletely processed form of milk chocolate. It is used as an ingredient in the manufacture of finished chocolate coatings and confections by chocolate manufacturers. Chocolate crumb is made by drying a liquid mixture of milk, sugar, and chocolate liquor. The drying of the liquid mixture provides a distinctive flavor which cannot be obtained using dry ingredients. Virtually all U.S. production of chocolate crumb is used captively by large chocolate manufacturers in the production o other chocolate products.

Confectionery products

Confectionery products included in this summary are chocolate and nonchocolate articles for sale at retai as candy. Some of the major types produced are candy bars; boxed chocolates; hard candies; licorice; gummy bears; enrobed or molded chocolate with fruit, nut, o cream centers; caramels and toffees; marshmallows and nougats; and various specialty candies, particularly holiday items. Holiday items are mostly comprised of Valentine "heart" boxes, chocolate bunnies, Easter cream eggs, and Christmas candy canes. Additional confectionery products that are not included in this summary are chewing gum, nuts, medicinal cough drops, and cookies.

To be labeled as chocolate, an item must meet the Standards of Identity for chocolate contained in the Code of Federal Regulations.[1]

U.S. INDUSTRY PROFILE

Industry Structure

The structure of the U.S. cocoa, chocolate, and confectionery industries is illustrated in figure 2. There are approximately 12 chocolate manufacturers that produce chocolate products from imported cocoa beans. These chocolate manufacturers produce semiprocessed products, such as cocoa butter, cocoa powder, chocolate liquor, chocolate and confectioners' coatings, finished chocolate, and finished confectionery. In addition, they sell semiprocessed cocoa products to approximately 150 other chocolate and confectionery manufacturers who produce candy from purchased chocolate, and to other industrial buyers for use in the baking, dairy, and cosmetic industries. The largest of these 12 chocolate manufacturers are Hershey Chocolate Corporation and M&M/MARS, that together accounted for approximately 70 percent of U.S. candy bar sales in 1991.

Confectionery manufacturers encompass all producers of both chocolate and nonchocolate type confectionery, including the 12 chocolate manufacturers mentioned above that produce chocolate and confectionery products in their own establishments from imported cocoa beans, the 150 establishments that produce candy from purchased chocolate, and the establishments that produce all other types of nonchocolate-type confectionery products. These establishments vary in size from mom & pop-type companies to large multinational conglomerates positioned all over the world.

With the *1987 Census of Manufactures*, the Bureau of the Census introduced changes in the Standard Industrial Classification (SIC) system affecting most candy and other confectionery, and nut products. Previously, these products were all included in SIC 2065, Confectionery Products. Under the revised SIC, nonchocolate candy, chocolate candy made from purchased chocolate, glacé fruits and nuts, nonmedicinal cough drops, and miscellaneous confectionery items are grouped in a new Standard Industrial Classification—Candy and Other Confectionery Products (SIC 2064). This new classification does not include chocolate candy made from cocoa beans ground in the same establishment; these chocolate candies remain part of the Chocolate and Cocoa Products industry (SIC 2066).

Sugar confectionery not containing cocoa (including white chocolate), is provided for in chapter 17 of the Harmonized Tariff Schedule of the United States (HTS). Sugar confectionery and other food preparations containing cocoa are provided for in HTS chapter 18.

Number of firms and employment

The *1987 Census of Manufactures* reported that 871 establishments, employing 57,000 persons, were engaged in the manufacture of chocolate and other confectionery products. Approximately twenty percent of these establishments employ 100 or more persons, while 60 percent employ 19 or fewer persons. Among establishments reporting shipments of $100,000 or more in 1987, 165 were in the nonchocolate candy sector; 150 were in the chocolate-producing sector; and 17 in other confectionery-type product. In addition to the 150 establishments producing candy from purchased chocolate, the Census also reported 11 establishments in SIC 2066 that produce chocolate candy from cocoa beans ground in the same establishment (figure 3).

From 1972 to 1982, there was a decline in the number of establishments and persons employed in the production of chocolate and confectionery products. In 1982, there were 805 establishments producing chocolate and confectionery products compared with 1,011 establishments employing 61,000 in 1972. This decline reflects an ongoing trend toward larger, more highly automated firms. Because of the recent changes in SIC product classes, these figures cannot be comparable with the 1987 data.

Concentration

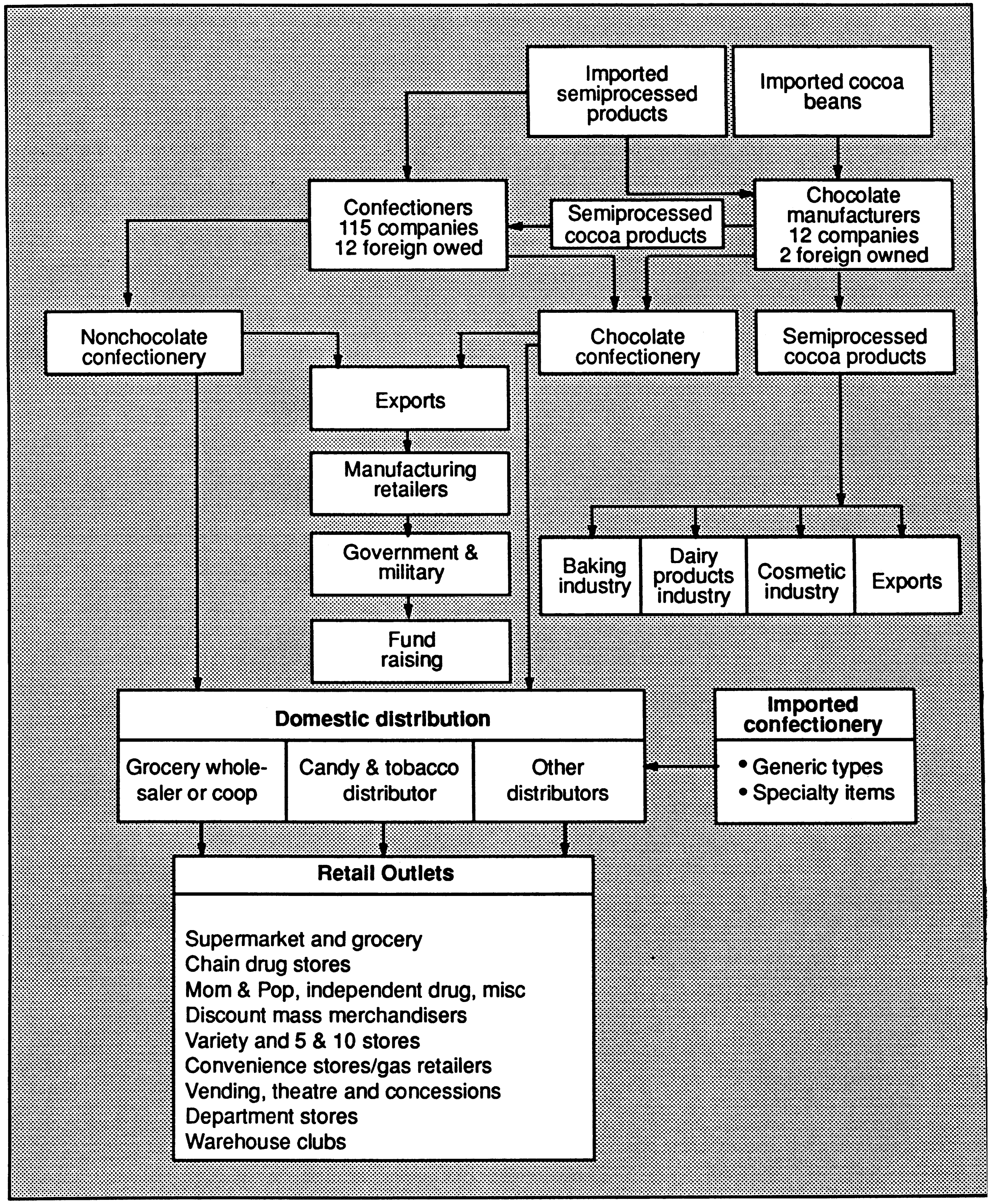
The *1987 Census of Manufacturers: Concentration Ratios in Manufacturing*, reports that in 1987, the 4 largest companies accounted for 45 percent of the value of shipments of candy and other confectionery products listed in SIC 2064 and 69 percent of the value of shipments of chocolate and cocoa products listed in SIC code 2066; the 8 largest accounted for 55 and 82 percent; and the top 20 companies accounted for 70 and 90 percent, respectively.

Geographic distribution

Approximately one-half of the confectionery establishments in the United States are located in Pennsylvania, California, New York, and Illinois. Other major producing areas are New Jersey, Ohio, and Massachusetts. Production facilities for confectionery products tend to be located close to population centers, thereby reducing marketing and transportation costs. Another factor in determining location is the availability of and the proximity to the inputs used in producing confectionery products.

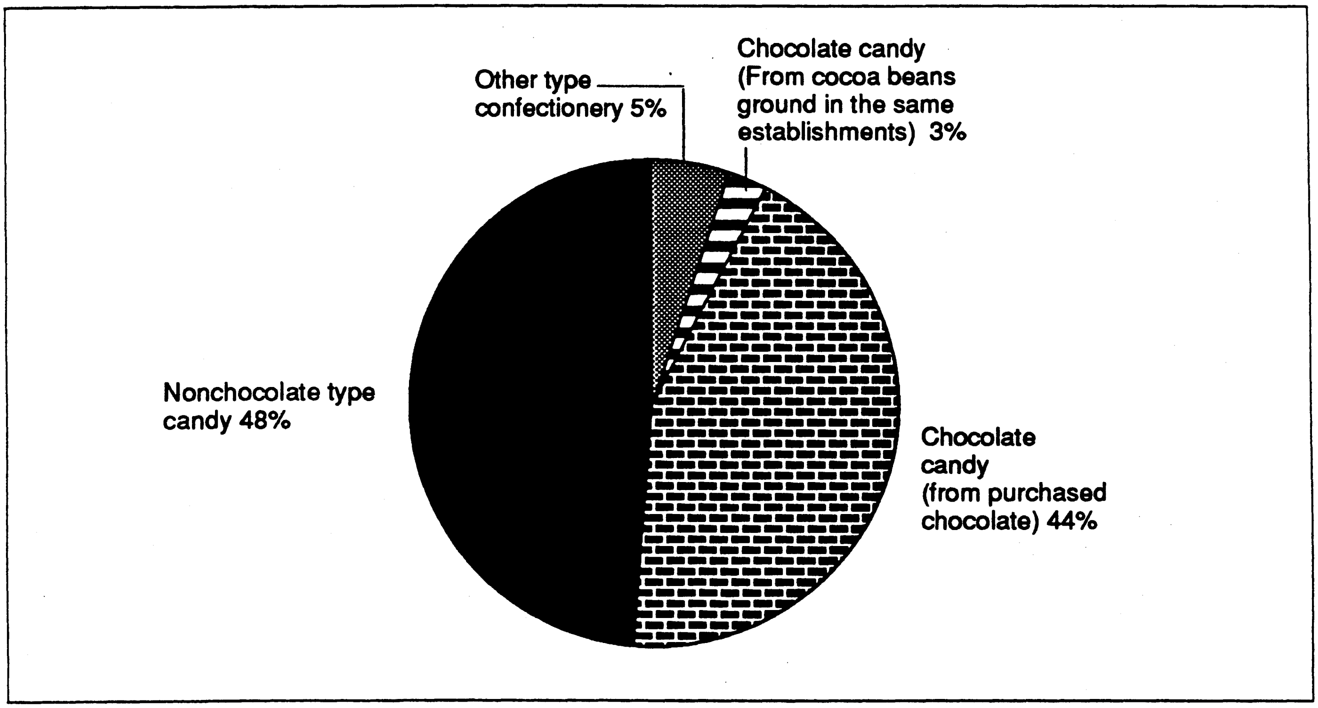
[1] 21 CFR 163.110-163.155.

Figure 2
U.S. Cocoa, chocolate, and confectionery industry structure and channels of distribution



Source: Chocolate Manufacturers Association; Leaf, Inc.; and modified by ITC staff.

Figure 3
Confectionery: U.S. shipments, by types, 1987



Source: 1987 *Census of Manufacturers*, by establishments with shipments of $100,000 or more.

Vertical and horizontal integration

Most of the chocolate and confectionery industry is vertically integrated and highly automated, starting with the semiprocessed on through to the finished product. In addition, a trend toward horizontal integration and product diversification has been ongoing in the confectionery industry for more than a decade and has continued into the 1990s. Since the beginning of 1989, there have been more than 50 mergers, joint ventures, licensing agreements or acquisitions in the industry.[2] For example, what started as Hershey Chocolate Company, which focused mainly on the production of chocolate and confectionery products, is now Hershey Foods Corporation, which is involved nationally and internationally in the manufacture of other processed food products, such as pasta. Most leading confectionery producers are similarly involved. M&M/MARS produces pet food, rice, and other products; Nestlé produces a broad range of processed food products as well as pharmaceuticals and cosmetics. Both these companies are also positioned globally.

Five confectionery producers accounted for approximately 90 percent of U.S. confectionery sales in 1991. As noted above, Hershey and M&M/MARS, the two largest U.S. confectionery producers, represented about 70 percent. In addition to candy bars, the leading producers also make other confectionery products.

Prior to 1988, M&M/MARS—a closely held private company—was considered the undisputed market leader in the United States. This changed in 1988, when Hershey, with the acquisition of Cadbury Schweppes' U.S. candy business, overtook M&M/MARS as the industry leader. This acquisition gave Hershey a 36 percent share of the U.S. market versus M&M/MARS's 35 percent. Nestlé, the third-largest candy maker, has 10 percent.[3] Listed below are the leading confectionery producers and the leading confectionery brands sold:[4]

Leading Confectionery Producers

Hershey Foods Corporation (U.S.)
M&M/MARS (U.S.)
Nestlé (Switzerland)

Leading Confectionery Brands and their Owners

"M&M's" Chocolate Candies	M&M/MARS
SNICKERS Bar	M&M/MARS
Reese's Peanut Butter Cup	Hershey
MARS Milky Way Bar	M&M/MARS
Hershey Kisses	Hershey

2 *Candy Industry*, July 1991, p. H13.

3 The *New York Times*, July 14, 1991.
4 The *Confectioner*, Mar./Apr. 1992.

Marketing methods

Cocoa beans are purchased either through brokers/importers or by direct purchases made by the chocolate manufacturers themselves. If world prices of cocoa beans are low, some chocolate manufacturers prefer to fill their silos with significant quantities of the "flavor" beans so critical to their product.

Chocolate manufacturers who produce semiprocessed products from cocoa beans, consume a portion of this production internally in the manufacture of chocolate candy and other finished products. The remainder of the semiprocessed materials are both exported and marketed directly to other candy manufacturers, as well as to consumers in the baking, dairy, and cosmetic industries for use in cake mixes, chocolate chip cookies, icings, ice cream, chocolate milk drinks, hand creams, and soaps.

The leading producers, such as Hershey, M&M/MARS, and Nestlé, market their products through distributors and directly to large retail chains, discounters, and mass merchandisers. Sales to distributors include grocery wholesalers or co-ops who sell to grocery stores; candy and tobacco distributors; and "other" distributors who sell to retailers, vending machines, theater concessions, department stores, and seasonal outlets. These leading producers also import and export directly, and sell directly to manufacturing retailers, government and military, and fund-raising organizations (see figure 2). In the aggregate, direct sales by these leading producers account for nearly 55 percent of candy distribution and sales.[5]

More recently, with the emergence of warehouse clubs such as Pace, Price, Sams, and B.J.'s, purchases by retailers that previously were made through candy and tobacco distributors are now made through these discount-warehouse clubs, which also buy directly from large producers. The increase in the share of distribution by these discount-warehouse clubs is in direct proportion to the share lost by the candy and tobacco distributors. In 1990, this share amounted to approximately 6 percent. The outlets served by these discount warehouse clubs are mom and pop-type stores and numerous small independent companies.

Government programs

Several of the principal ingredients used in producing chocolate and confectionery products (such as milk, sugar, and peanuts) are subject to price-support programs administered by the U.S. Department of Agriculture (USDA). These programs generally support the price of milk, sugar, and peanuts at levels above world prices for these ingredients and provide foreign producers, that can purchase at world prices, with a competitive advantage in the price of the major confectionery ingredients. In order to protect these price-support programs from import interference, imports of the articles (and certain items made from these articles) are subject to tariffs and/or quotas. Imports of sugar are subject to a tariff-rate quota system. Imports of dairy products, peanuts, and certain articles containing sugar are subject to absolute quotas under section 22 of the Agricultural Adjustment Act, two of which—sweetened cocoa powder and chocolate crumb—are included in this summary (see section on U.S. nontariff measures).[6]

Under the Food, Agriculture, Conservation, and Trade Act of 1990 (the 1990 Farm Bill), the Targeted Export Assistance (TEA) program was replaced by the Market Promotion Program (MPP). The TEA program (initiated under the Food Security Act of 1985) provided funds to industry groups adversely affected by unfair trade practices of foreign competitors, to help gain access to specific markets. Under the MPP, the USDA is required to use Commodity Credit Corporation funds, or commodities, to "encourage the development, maintenance and expansion of commercial export markets for agricultural commodities through cost-share assistance to eligible trade organizations that implement a foreign market development program." The TEA program requirement limiting eligibility to commodities adversely affected by unfair foreign trade practices is eliminated in the MPP. However, such commodities are considered a priority for participation in the MPP; once their promotional needs have been satisfied, other commodity groups are considered for assistance.

Listed below are the TEA and MPP program allocations for confectionery since 1986 (million dollars):

Year	TEA
1986	2.5
1987	0
1988	2.5
1989	3.0
1990	0.9

Year	MPP
1991	1.55
1992	2.1

Since the inception of the TEA program in 1986 U.S. confectionery exports have increased steadily from $124 million in 1987 to $345 million in 1991, or by 178 percent (table A-1). Industry sources argue that without the financial assistance of these programs, it would be difficult to position U.S. products in foreign countries that usually have well-established home brands.[7]

International trade in cocoa beans is affected by the International Cocoa Agreement (ICCA)[8]. This agreement aims to reduce fluctuations in prices, improve long-run producer earnings, and deliver a steady, adequate, and reasonably priced supply of cocoa beans to consumers. The agreement also

[5] Confectionery Distribution Chart, Leaf, Inc. 1990.

[6] For information on these programs see separate summaries on *Dairy Produce, Natural Sweeteners,* and *Edible Nuts*.

[7] Chocolate Manufacturers Association.

[8] The two "C's" in the initials for the International Cocoa Agreement (ICCA) are used to distinguish it from the International Coffee Agreement (ICA).

provides for market intervention through the buying and selling of buffer stocks to moderate price swings. The current ICCA was concluded in July 1986 and officially went into effect in January 1987. It was scheduled to be in effect through 1990, but, because the signatory countries were unable to negotiate a new agreement by the end of that year, it was extended for an additional 3 years.

The 1986 ICCA's 250,000-metric-ton (mt) buffer stock includes 100,000 mt of cocoa carried over from the 1980 ICCA. The buffer stock is financed by a 1.4-cent-per-pound levy on member exports and on member imports from nonmembers. The ICCA provides for semiautomatic adjustment mechanisms and price reviews. Prices in the current ICCA are denominated in special drawing rights (SDRs) to moderate currency fluctuations.[9]

Cocoa prices under the agreement are determined by reference to a daily price and by an indicator price expressed in SDRs per mt. Prices are reviewed annually and are adjusted automatically by 115 SDRs/mt, up or down, if they are not within the mandatory intervention levels and if the buffer stock manager has bought or sold 75,000 mt of cocoa within a 6-month period.[10]

The United States has not been a member of any of the ICCAs for a variety of reasons. Most notably, the U.S. Government believes that buffer stock arrangements generally do not work, that cocoa agreements have been inadequately funded, and that unrealistic price ranges are specified in the agreements.

Consumer Characteristics and Factors Affecting Demand

The large U.S. chocolate producers are the principal U.S. consumers of cocoa beans. These chocolate producers, for quality-control reasons, prefer to purchase cocoa beans for processing in their own establishments rather than purchase semiprocessed cocoa products. This affords the manufacturers better quality and flavor control, which is essential to the production of uniform products.

The principal U.S. consumers of semiprocessed cocoa products are the smaller chocolate confectionery producers who use semiprocessed cocoa products as ingredients in their finished confections, as well as producers of foods, such as bakery and dairy products. Consumers of all finished confectionery products are the general public who purchase through department stores, grocery chain stores, or through the numerous other outlets where candy is available for sale at a retail level.

U.S. demand for cocoa, chocolate, and confectionery is influenced by a number of factors. These include price, taste, discretionary income, health awareness, advertising promotions, the appeal of specific products, and demographic change. Confectionery sales are also highly seasonal. According to the Chocolate Manufacturers Association, 1987-89, and the U.S. Bureau of Census, 1990-91, U.S. consumption of confectionery products for the last 5 years is as follows:

Year	Per capita consumption
1991	20.3
1990	20.1
1989	20.4
1988	19.2
1987	18.3

Historically, the United States has lagged behind the European countries in the consumption of confectionery products (figure 4). In an effort to increase U.S. consumption, the National Confectioners Association launched an advertising campaign incorporating the slogan of "25 by 95," the purpose of which is to increase U.S. confectionery consumption to 25 pounds per person by the year 1995. As part of this campaign, NCA sought to disseminate information from ongoing studies that suggest that chocolate and confectionery products are neither a principal cause of tooth decay, nor are they high in fat, sugar, or cholesterol content, nor otherwise injurious to health.

Confectionery sales peak during certain holiday periods. About half of total annual confectionery output is produced to supply demand during Halloween, Christmas, Easter, Valentine's Day, and Mother's Day. Halloween of 1991 reflected sales of over $1 billion dollars; Christmas, $1.24 billion; Easter, $864 million; Valentine's Day, $642 million; and Mother's Day, $323 million (figure 5).

A trend toward sales of higher-priced products became evident during the last decade. This trend has spurred sales of such higher priced brands as Godiva, Ethel M., See's chocolates; Lindt's, and Tobler's chocolate bars; and gourmet lollipops. Public attention was further drawn to confectionery in the 1980s when President Reagan, an avowed candy eater, made candy the official "snack" of the White House.[11] During his tenure in office, the President's fondness for jelly beans rekindled their popularity, including the popularity of a gourmet jelly bean called "Jelly Belly."

Increased interest in health awareness brought into the market numerous new light and sugarless confectionery products, including fat replacements. At the same time, advertising was credited with the positioning of candy in the snack food industry, which in turn increased sales by offering candy to athletes as an alternate, energy-building, health snack during the 1980s Olympics.

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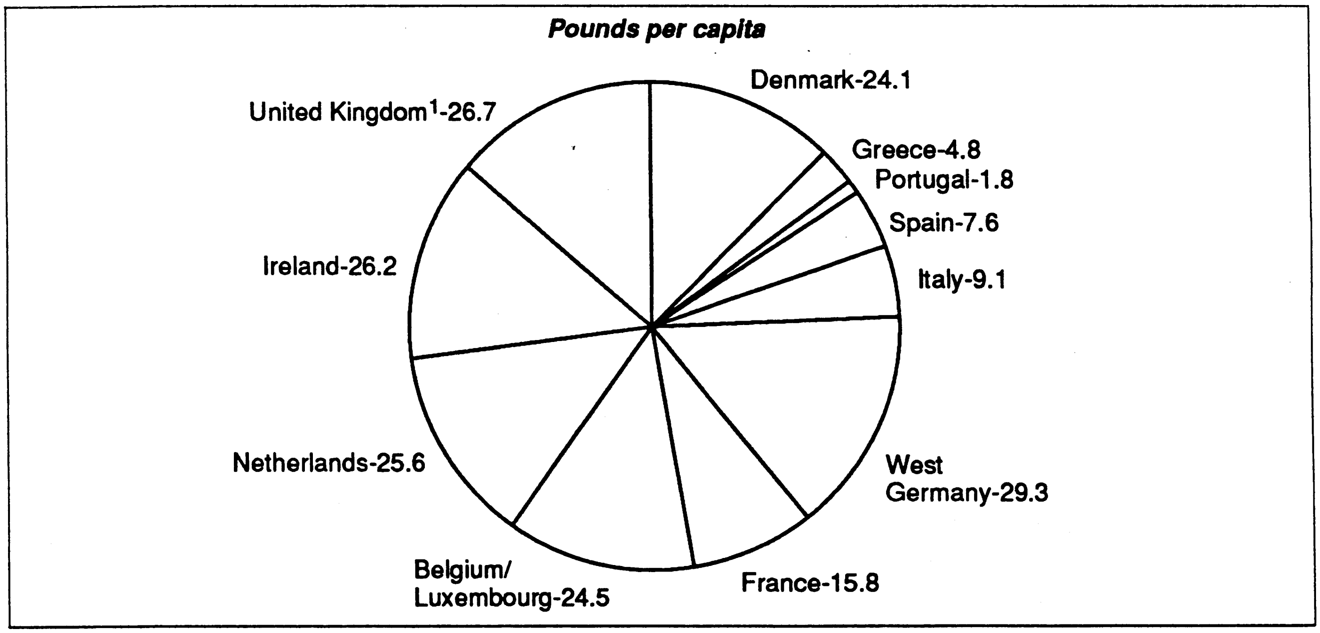
[9] U.S. Department of State, "International Commodity Agreements," GIST, Aug. 1985.

[10] Under the supervision of the buffer stock manager, the scheme provides for the withholding of a maximum of 120,000 mt of cocoa from the market by producers when the indicator price is at or below the lower intervention price for 5 or more consecutive days, or when either 80 percent of the maximum capacity of the buffer stock has been filled, or when the net financial resources of the buffer stock are only sufficient to purchase 30,000 mt of cocoa.

[11] The Manufacturing Confectioner, Mar. 1989, p. 45.

Figure 4
Confectionery: The European Community per capita consumption, 1989

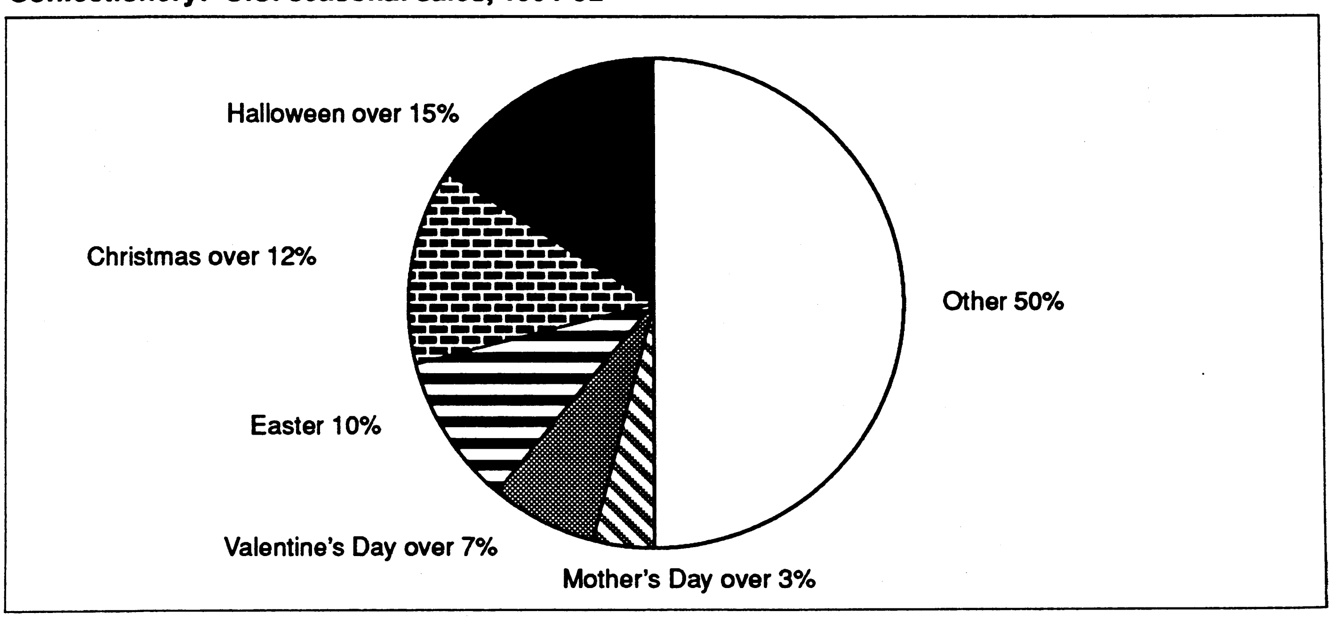


[1] Chocolate coated biscuits and wafers such as Kit Kat & Twix are not classified as confections in the United Kingdom.

Note.—Pounds per capita is based on domestic production, plus imports, minus exports divided by population. Pounds have been converted from kilogram per capita data.

Sources: CAOBISCO 1989 Statisitcal Monograph (Association of the Chocolate, Biscuit, and Confectionery Industries of the EEC) and ISC (International Statistics Committee).

Figure 5
Confectionery: U.S. seasonal sales, 1991-92



Source: Chocolate Manufacturers Association.

FOREIGN INDUSTRY PROFILE

Required growing conditions limit cocoa-bean growing to tropical countries such as Cote d'Ivoire, Brazil, Ghana, Malaysia, and Nigeria (figure 6). Cocoa beans are not produced in the United States.

World cocoa bean production has increased almost consistently in almost all leading producing countries since the 1983/84 crop year.[12] Production rose 27 percent during 1987-91, or from 2.0 million tons to 2.5 million tons (table A-2).[13] World stocks of cocoa beans are expected to increase to a record level of over 1.6 million tons by the close of the current 1990/91 crop year. This marks the seventh consecutive year that world production has exceeded demand. Moreover, world production is expected to remain at high levels over the next several years largely because new plantings in Malaysia and Indonesia will come into bearing. These plantings are expected to offset the leveling-off of expansionary trends in production in Cote d'Ivoire and Brazil.

Semiprocessed cocoa products are produced principally in Brazil, Cote d'Ivoire, and Western Europe as well as in the United States. With the exception of Cote d'Ivoire, all countries use most of these products captively downstream in the production of confectionery products. A portion of these products are also sold to other confectioners in the same country for the same purpose, and the remainder is exported.

[12] Crop year beginning Oct. 1.
[13] All tons are metric (2,204.6 lbs).

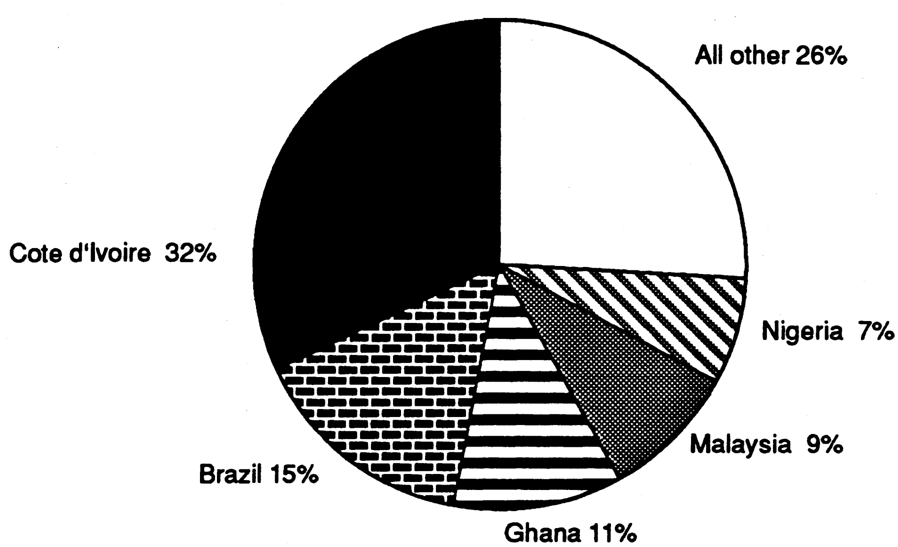
Cote d'Ivoire, which does not produce significant amounts of confectionery, exports virtually all the semiprocessed products it produces.

Some confectionery is probably produced in every country in the world. The principal producing nations, however, are the economically developed nations of Western Europe and North America. The major exporting nations are located mostly in Western Europe—the United Kingdom, Switzerland, the Netherlands, and Germany being the most important.[14] Many of the major confectionery-producing nations are significant importers as well. With the emergence of the independent Soviet Republics in 1991, the importance of these countries as producers and exporters may increase or shift somewhat over time. However, little change is expected until these newly established countries become more politically and economically sound.

The European industry includes several large multinational firms that also operate in North America and in many other countries of the world through mergers, joint ventures, licensing agreements, or acquisitions. The leading five confectionery manufacturers in Europe are Nestlé, Switzerland; Rowntree, United Kingdom; Jacobs Suchard, Switzerland, Italy, and Germany; Cadbury Schweppes, United Kingdom and Europe; and M&M/MARS, Germany, France, the Netherlands, and the United Kingdom.

[14] These countries are also the leading competitors of the United States.

Figure 6
World production of cocoa beans, by principal producers, 1991



[1] Production statistics relate to the International Cocoa Crop Year, which runs from Oct. 1 to Sep. 30.
[2] The Brazilian cocoa crop year runs from May 1 to Apr. 30; production statistics, however, have been adjusted to the international crop year.

Source: Gill & Duffus, *Cocoa Market Report*, No. 343, May 1992.

U.S. TRADE MEASURES

Tariff Measures

The current rates of duty applicable to the articles included in this summary are shown in table A-3. An explanation of tariff and trade agreement terms is shown in appendix B. The aggregated trade-weighted average rate of duty for all products covered in this summary, based on 1991 imports, was 2 percent ad valorem equivalent; the average trade-weighted rate of duty for the dutiable products was 4 percent ad valorem equivalent. About 25 percent of the imports included here, mostly cocoa beans and semiprocessed products, are duty free. In late 1992, the United States, Canada, and Mexico signed the North American Free-Trade Agreement (NAFTA). If ratified by the United States, NAFTA will provide for duty-free entry of cocoa, chocolate, and confectionery products from Mexico into the United States. The U.S. duty on cocoa, chocolate, and confectionery products from Mexico would be phased out over a 10 year period.

Trade Law-Related Measures

Most of the articles contained in this summary are not subject to import relief under the U.S. trade laws. However, imports of chocolate crumb and sweetened cocoa powder are subject to import quotas pursuant to section 22 of the Agricultural Adjustment Act to protect the domestic price-support programs for milk and sugar, respectively.

Imports of chocolate crumb are subject to absolute quotas imposed to protect the domestic price-support program for milk. Separate quotas are provided for chocolate crumb containing over 5.5 percent butterfat (HTS item 9904.10.63), and chocolate crumb containing 5.5 percent or less by weight of butterfat (HTS item 9904.10.66). These quota items are not subject to import licenses, are administered on a country-by-country basis and are filled on a first-come-first-served basis.

Import quota allocations for chocolate crumb by country are shown below (in kilograms):

Country of origin	Quota
HTS item 9904.10.63	
Ireland	4,286,491
United Kingdom	3,379,297
Netherlands	45,359
Australia	2,000,000
New Zealand	1
Other	None
Total	9,711,148
HTS item 9904.10.66	
United Kingdom	421,845
Ireland	1,700,988
New Zealand	1
Other	None
Total	2,122,834

Imports of certain confectionery items deemed to be articles of milk or cream are also subject to quotas to protect the U.S. price-support program for milk. These quotas are allocated by country as shown below (in kilograms):

HTS item and country of origin	Quota
HTS item 9904.10.75	zero quota
HTS 9904.10.81[1]	
Australia	1,016,046
Belgium and Denmark (aggregate)	154,221
Other	None
HTS item 9904.60.60[1]	76,203

[1] Subject to an annual quota beginning Oct. 1.

In addition, chocolate syrup containing sugar is subject to a zero quota if not packed for retail consumption (HTS item 9904.50.20). Sweetened cocoa is subject to a zero quota if it contains over 65 percent of sugar and is not packed for retail sale (HTS item 9904.50.40); other sweetened cocoa articles containing less than 65 percent of sugar (HTS item 1806.10.20) or containing at least 65 percent but less than 90 percent of sugar derived from sugar cane or sugar beets (HTS item 1806.10.30) are subject to an annual quota of 2,721 metric tons (HTS item 9904.60.20). These quotas were imposed pursuant to section 22 of the Agricultural Adjustment Act to protect the U.S. price-support program for sugar.[15]

FOREIGN TRADE MEASURES

Tariff and nontariff barriers to world trade in both developed and developing countries have traditionally been a major deterrent to U.S. exports. For many years, the U.S. confectionery industry has sought a reduction in foreign tariff barriers. Tariff barriers on confectionery products in several Pacific Rim countries and Mexico were substantially reduced in the late 1980s.

The rates of duty and related import taxes or barriers imposed on both chocolate and other confectionery imports from the United States and from other countries by the leading consuming countries are shown in the following tabulation:[16]

[15] In addition, imports of sweetened cocoa powder that contain over 90 percent by weight of sugar (HTS items 1806.10.41 and 1806.10.42) are subject to the rate of duty applicable to sugar imported over quota, pursuant to Additional U.S. Notes to chapter 17 of the HTS.

[16] Chocolate Manufacturers Association, Jan. 22, 1991

Country	Current tariff *Percent ad valorem*	Other import related taxes or barriers
Canada		
Chocolate	7.5	None reported
Sugar Conf.	9.3	None reported
Mexico		
Chocolate	20	0.8% Customs, Processing
Sugar Conf.	20	Fee and 10% VAT[17]
Japan		
Chocolate	10	Important colors
Sugar Conf.	35	banned[18]
Bulk chocolate	35	
Korea		
Chocolate	16	Standards-including
Sugar Conf.	13	labeling
Philippines		
Chocolate	45/50	10% VAT and 5% surcharge
Sugar Conf.	50	on all imports
Taiwan		
Chocolate	15	None reported
Sugar Conf.	40	None reported
Australia		
Chocolate	15	Labeling standards
Sugar Conf.	16	

In addition to import duties, many countries effectively restrict imports of confectionery products through additional import-related taxes or surcharges, through regulation of coloring and other additives, for example, by banning the use of red or yellow dyes, and by establishing standards, testing, and certification requirements.

Most cocoa bean producing countries seek to encourage higher quality exports and exports of value-added products. Ghana, for example, reportedly has sought to raise the farmers' share of the export price to discourage smuggling to Cote d'Ivoire for further processing; in Nigeria, fertilizers and seedlings are heavily subsidized by the Federal and State Government to encourage the replanting of old plantations; the Cote d'Ivoire Government partially subsidizes prices on fermentation vats and plastic covers to assure satisfactory bean fermentation and drying.

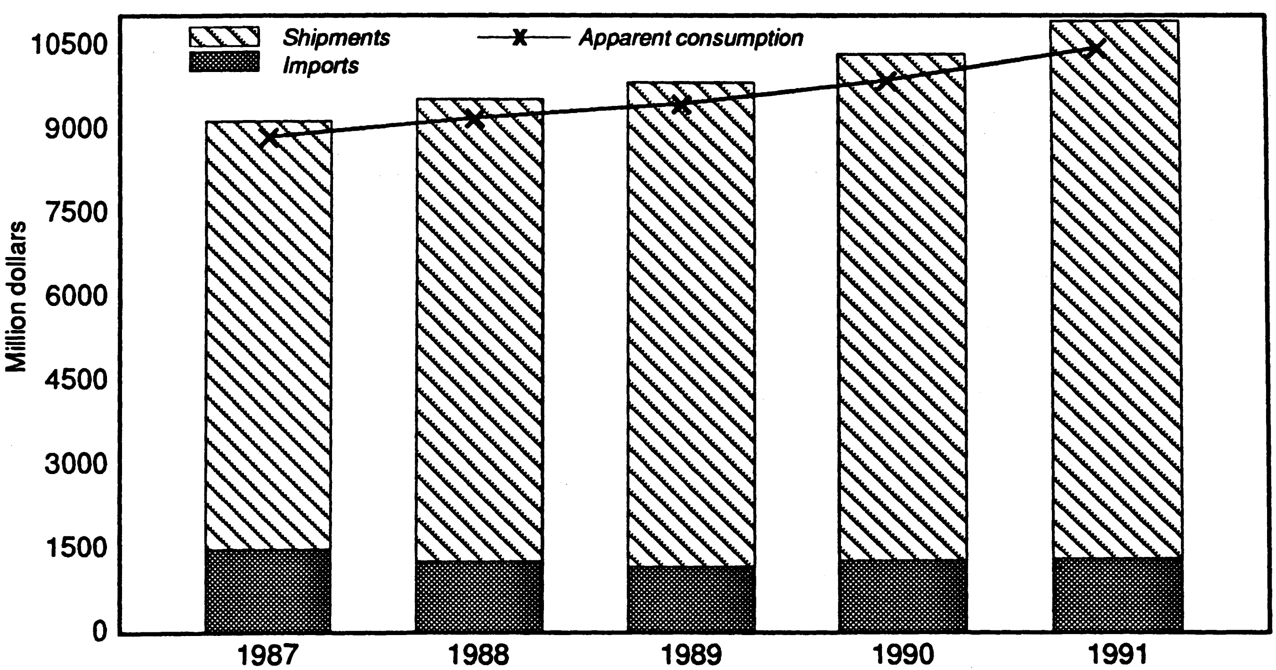
U.S. MARKET

Consumption

During 1987-91, U.S. apparent consumption of confectionery products increased by 18 percent, from $9.0 billion to $10.6 billion, and the ratio of imports to consumption decreased from 16 to 12 percent (figure 7 and table A-1). According to industry sources, the increase in apparent consumption is due in part to the industry's campaign efforts to dispel negative images about the impact of confectionery on health and to the promotional "25 by 95" program. The decline in the ratio of imports to consumption is believed to be due to the continuing structural changes in the industry over

17 Value added tax.
18 Red and yellow dyes (mostly red).

Figure 7
Confectionery: U.S. imports, producers' shipments, and apparent consumption,[1] 1987-91



1 Apparent consumption = producers' shipments + imports - exports.

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

the last 4 years. For example, one former European supplier is now positioned in the United States through a licensing agreement with a leading U.S. company.

The leading consumers of cocoa beans in 1991, were the United States, Germany, the Netherlands, and the United Kingdom. During 1987-91, the quatity of U.S. cocoa bean consumption increased 49 percent, from 263,000 metric tons in 1987 to 392,000 metric tons in 1991. The value of consumption for the 5-year period, however, declined 17 percent reflecting the decline in cocoa bean prices during this period (table A-2). Chocolate producers tend to increase cocoa bean purchases for storage during periods of low prices. This insures adequate supplies of the "flavor" beans necessary for the quality and flavor of their product. In 1991, the ratio of U.S. grind (consumption) to world production was 12 percent, which represents a 20-percent increase for the 5-year period.

For the 5-year period, apparent consumption of all semiprocessed products increased 23 percent in quantity (table A-4). The most significant increases were in unsweetened chocolate, 90 percent (table A-5); confectioners' coatings, 53 percent (table A-6); and sweetened cocoa powder, 42 percent (table A-7). U.S. consumption of cocoa butter and sweetened chocolate also increased (tables A-8 and A-9). These increases continue to reflect the longstanding trend of the cocoa bean-producing countries, such as Brazil and Cote d'Ivoire, to increase their exports of value-added products. U.S. consumption of unsweetened cocoa powder declined during this period by 22 percent (table A-10).

Production

U.S. confectionery shipments/production increased steadily from $7.7 billion in 1987 to $9.6 billion in 1991, or by 25 percent (table A-1). U.S. shipments are a direct reflection of the increased demand at home and abroad for U.S. chocolate and confectionery products.

Production figures for semiprocessed products cannot be used because several individual product lines were significantly revised in the chocolate non-confectionery products. These revisions were primarily the result of changes made by companies to data they previously reported. Many of the revisions were a reclassification of products from chocolate confectonery products to non-confectionery chocolate products.

U.S. Imports

Imports of the items in this summary consist of three major types: cocoa beans (which accounted for 32 percent of total imports in 1991), semiprocessed cocoa products (40 percent), and confectionery products (28 percent).

During 1987-91, cocoa bean imports increased 27 percent in quantity but decreased 17 percent in value. This increase in import quantity reflects the ongoing trend toward imports of the raw product for further processing by domestic producers; the decrease in price reflects world supplies surpassing demand for almost a decade and a resulting decline in prices.

U.S. imports of semiprocessed products in the aggregate have decreased 6 percent in quantity and 31 percent in value from 1987 to 1991 (table A-4). However, for the 5-year period covered, relatively large increases in import quantities occurred for several individual products. Unsweetened chocolate increased 139 percent (table A-5); confectioners' coatings increased 58 percent (table A-6); sweetened cocoa powder, 50 percent (table A-7); and cocoa butter, 17 percent (table A-8). Decreases in both quantity and value were reflected in sweetened chocolate (table A-9) and unsweetened cocoa powder (table A-10). Brazil, Ecuador, and Canada were the leading suppliers of unsweetened chocolate; Brazil, Malaysia, and Ecuador were the leading suppliers of cocoa butter; and Jamaica and Germany were the leading suppliers of sweetened cocoa powder. The principal importers of these products are the domestic confectionery and baking industries.

U.S. imports of confectionery are of two different types of products. One type is for the domestic gourmet market in which imports do not compete directly with most U.S. products; the other type is for the general retail market in which imports compete directly with most U.S. products. U.S. brokers are the principal importers of the latter type, whereas retailers are the principal importers for the gourmet market.

Total U.S. imports of cocoa, chocolate, and confectionery products decreased 11 percent in value between 1987-91 (table A-11). In the aggregate, 26 percent of the imports in this summary are currently duty free. In addition, another 65 percent of the imports in 1991 entered either duty free under GSP or at reduced rates under the United States-Canada Free-Trade Agreement. The remaining 9 percent are dutiable; however, some of these items are limited by quotas under section 22. The overall trade-weighted average rate of duty for all products in this summary was 2 percent ad valorem. In 1992, total U.S. imports of these products rose an additional 27 percent in quantity and 22 percent in value. Almost all of this increase was in confectionery items from Canada.

FOREIGN MARKET PROFILE

The Pacific Rim countries offer the greatest growth potential for U.S. confectionery exports. Protective tariffs and nontariff barriers that deterred exports in the past were lowered by Taiwan, Korea, and Japan in the late 1980s. Among the major industrial countries of the world, Canada and Japan have very low rates of duty on chocolate confectionery.

Other potential markets for U.S. confectionery exports are Canada and Mexico. Canada is scheduled to eliminate all tariffs on U.S. imports by 1998 under the U.S.-Canada Free-Trade Agreement; under the North American Free Trade Agreement, Mexico is to phase out its tariffs on confectionery from the United States over 10 years. The North American Free Trade Agreement with Mexico and Canada will create a largely barrier-free market of some 360 million consumers.

In addition, with the unification of Germany, the emergence of the independent Soviet Republics, and the elimination of additional barriers to the movement of goods within the European Community by the end of 1992, further growth potential exists in these markets.

The price of raw materials plays a dominant role in determining international competitive advantages in the manufacture of chocolate and confectionery products. Because of the influence of U.S. price-support programs, foreign confectioners can purchase sugar, whole milk solids, butter, and peanuts at lower prices than those paid by U.S. manufacturers, thus giving a competitive advantage to European, Canadian, and other producers for certain ingredients. Brazil, for example, which grows cocoa beans and sugar cane, enjoys the additional advantage of being able to use domestically produced sugar at world prices to produce semifinished and finished products.[19] In addition, European confectionery manufacturers are recognized worldwide for producing a high-quality product that caters to the premium-priced market both at home and abroad.

[19] For example, one study examined the effect of the high U.S. sugar prices on U.S. imports of confectionery and chocolate products. This study found that high U.S. sugar prices contributed to increased U.S. imports of confectionery and chocolate products during 1979-86, but that growth in per capita income contributed even more. See Cathy L. Jabara, "Effect of Agricultural Protection of Food Manufacturing: The U.S. Sugar Program," *European Review of Agricultural Economics*, vol. 16, 1989, pp. 375-389.

U.S. EXPORTS

Products Exported

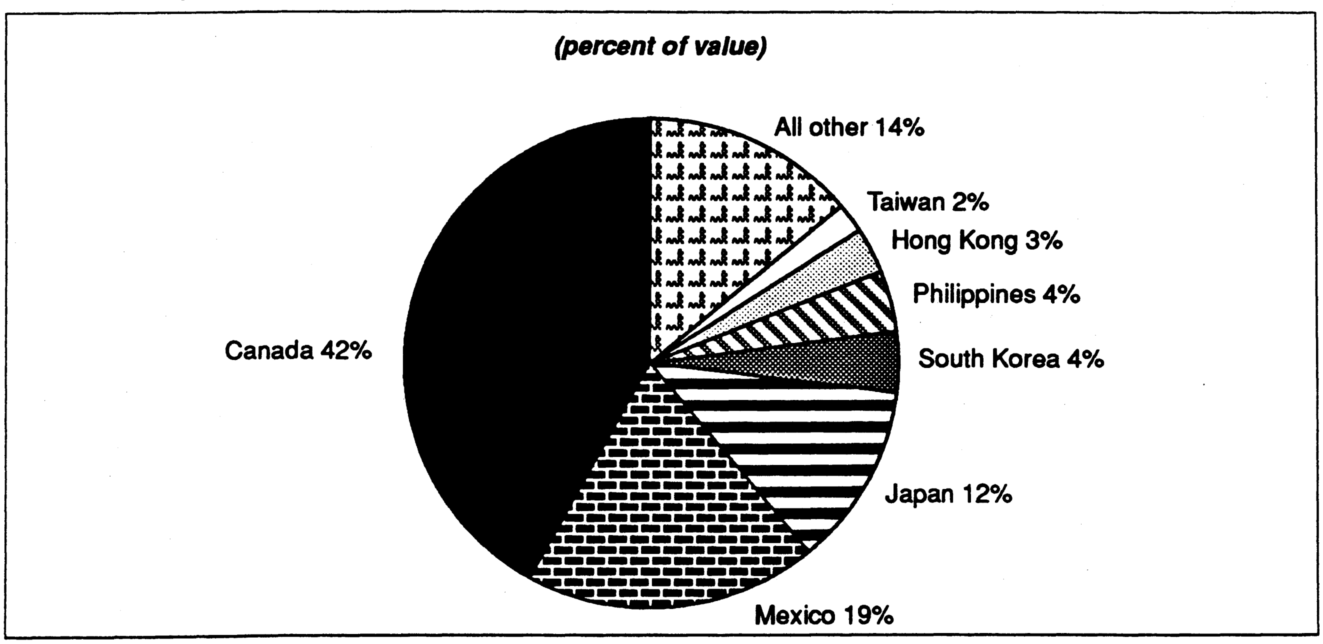
U.S. exports are mostly of chocolate and nonchocolate types of confectionery packaged for retail sale. Exports of these products as a percentage of U.S. producers' shipments ranged from 2 percent in 1987 to 4 percent in 1991 (table A-1).

Export Levels and Trends

For the 5-year period under discussion, U.S. chocolate and confectionery exports rose 178 percent, from $124 million in 1987 to $345 million in 1991 (table A-12). To date, the gains have come mainly in chocolate candy. In 1989 and 1990, Canada, Mexico, Japan, South Korea, the Philippines, Hong Kong, and Taiwan, together, accounted for 86 percent of total U.S. confectionery exports by value (figure 8). Canada, normally the largest export market, accounted for 42 percent of U.S. exports in both 1991 and 1992. Increased exports to Canada during 1989-91 (143 percent, by value) partly reflects the implementation of the United States-Canada Free-Trade Agreement, which entered into force on January 1, 1989, and the change in the way imports and exports were counted between Canada and the United States.[20] Contributing factors leading to the substantial increases in other export markets were 1) the expansion of the TEA program (now the MPP) to

[20] It should be noted that beginning in 1990, U.S. exports to Canada as reported by the U.S. Bureau of the Census are derived from import data compiled by Canada. Census officials have reported to the Commission that pre-1990 exports to Canada (e.g., 1989) are understated by varying degrees according to product area.

Figure 8
Confectionery: U.S. exports, by principal markets, 1991



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

include allocations for marketing purposes; 2) the lowering of tariffs in the Pacific Rim countries; 3) the lowering of tariffs and the increase in per capita income in Mexico; and 4) the depreciation of the U.S. dollar against many other currencies.

U.S. TRADE BALANCE

The United States traditionally has run a trade deficit in cocoa, chocolate, and confectionery products. However, because of rising exports, the U.S. trade deficit in cocoa, chocolate, and confectionery products decreased 29 percent during 1987-91 (Table A-13), and an additional 5 percent in 1992.

APPENDIX A
STATISTICAL TABLES

Table A-1
Confectionery: U.S producers' shipments, exports of domestic merchandise, imports for consumption, and apparent U.S. consumption, 1987-91

Year	U.S. producers' shipments[1]	U.S. Exports	U.S. Imports	Apparent U.S. consumption	Ratio of imports to consumption
	Million dollars				Percent
1987	7,679	124	1,471	9,026	16
1988	8,278	181	1,257	9,354	13
1989	8,682	237	1,158	9,603	12
1990[2]	9,082	328	1,267	10,021	13
1991[3]	9,636	345	1,302	10,593	12

[1] *Current Industrial Report, Confectionery,* MA20D(90)-1, U.S. Department of Commerce, Bureau of the Census.
[2] Preliminary.
[3] Estimated.

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

Table A-2
Cocoa beans: World production, U.S. imports for consumption, and U.S. grind, 1987-91[1]

Year	World production[2]	U.S. imports		U.S. cocoa bean grind	Ratio of U.S. grind to world production
		Quantity	Value		
	1,000 kg	*1,000 kg*	*$1,000*	*1,000 kg*	*Percent*
1987	1,996,000	262,613	503,982	197,509	10
1988	2,198,000	236,745	405,299	258,673	12
1989	2,469,000	266,148	384,251	262,902	11
1990[3]	2,418,000	337,195	367,042	321,688	13
1991[4]	2,543,000	392,010	418,181	303,806	12

[1] Cocoa beans, a tropical agricultural product, are not produced in the United States.
[2] World production and U.S. cocoa bean grind estimates are for Oct. 1 of the preceding year through Sept. 30 of the year reported.
[3] Estimate.
[4] Forecast.

Source: World production, *Cocoa Market Report No. 342,* Gill & Duffus, Jan. 1992. U.S. grind, *Cocoa Market Report No. 340,* May 1991, for 4th quarter of 1986, and *Cocoa Market Report No. 342,* Jan. 1992 for all other quarters. Imports compiled from official statistics of the U.S. Department of Commerce.

Cocoa, chocolate, and confectionery: 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	Brief description	Col. 1 rate of duty as of Jan. 1, 1992 — General	Col. 1 rate of duty as of Jan. 1, 1992 — Special[1]	U.S. exports, 1991	U.S. imports, 1991
				1,000 dollars	*1,000 dollars*
1704.90	Confectionery, other than chewing gum:				
.10	Candied nuts, not containing cocoa	7% ad val.	Free (E,IL) 3.6% (CA)	([2])	468
.20	Confections or sweetmeats ready for consumption, not containing cocoa, n.e.s.i	7% ad val.	Free (A,E,IL) 4.2% (CA)	58,739	217,799
.40	Sugar confectionery (including white chocolate) articles of milk or cream, not containing cocoa	17.5% ad val.	Free (E,IL) 10.5% (CA)	([2])	1,684
.60	Sugar confectionery n.e.s.i. not containing cocoa	12.2% ad val.	Free (E, IL) 7.3% (CA)	46,079	1,951
1801.00.00	Cocoa beans, whole or broken, raw or roasted	Free	Free	9	418,181
1802.00.00	Cocoa shells, husks, skins and other cocoa waste	Free	Free	56	341
1803.10.00	Cocoa paste, not defatted	Free	Free	3,641	40,069
1803.20.00	Cocoa paste, wholly or partly defatted	. 0.82¢/kg	Free (A,CA,E,IL)	1,741	22,986
1804.00.00	Cocoa butter, fat and oil	Free	Free	9,740	279,011
1805.00.00	Cocoa powder, not containing added sugar or other sweetening matter	0.82¢/kg	Free (A,E,IL) 0.4¢/kg (CA)	7,353	62,630
1806.10	Cocoa powder, containing added sugar or other sweetening matter:				
.20	Cocoa powder containing less than 65 percent by weight of sugar	Free	Free	17,410	2,237
.30	Cocoa powder containing 65 per cent or more but less than 90 percent by weight of sugar	10% ad val.	Free (A,E,IL) 6% (CA)	0	288
.41	Cocoa powder containing 90% or more by weight of sugar, described in paragraphs (a) and (b) for additional U.S. note 3 to chapter 17 and entered pursuant to its provisions	Dutiable on total sugars at the rate applicable under subheading 1701.11.01	Free (A*,E*,IL) Dutiable on total sugars at the rate applicable under subheading 1701.11.01 (CA	0	([2])
.42	Other cocoa powder containing 90% or more by weight of sugar	Dutiable on total sugars at the rate applicable under subheading 1701.11.03	Dutiable on total sugars at the rate applicable under subheading 1701.11.03 (CA)	0	146

See footnotes at end of table.

Table A-3—Continued
Cocoa, chocolate, and confectionery: 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	Brief 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	
1806.20	Other cocoa preparations in blocks, slabs, or in liquid or other bulk form weighing more than 2 kg:				
.20	Preparation consisting wholly of ground cocoa beans, containing not over 32 percent butter fat and 60 percent sugar, in blocks or slabs 4.5 kg or more each	Free	Free	0	53,425
.40	Preparation consisting wholly of ground cocoa beans, containing not over 32 percent butter fat and 60 percent sugar, in any other form n.e.s.i	5% ad val.	Free (A,E,IL) 3% (CA)	0	44,361
.60	Confectioners' coatings and other products, not less than 6.8 percent non-fat solids of the cocoa bean nib and not less than 15 percent vegetable fats	2.5% ad val.	Free (A,E,IL) 1.5% (CA)	2,064	8,274
.70	Chocolate and other food preparations containing cocoa, containing more than 65 percent sugar	10% ad val.	Free (A,E,IL) 6% (CA)	0	343
.80	Chocolate and other food preparations containing cocoa, n.e.s.i. and not over 65 percent sugar	10% ad val.	Free (E,IL) 6% (CA)	37,730	575
1806.31.00	Chocolate and other food preparations containing cocoa, in blocks, slabs, or bars, each weighing 2 kg or less, filled	7% ad val.	Free (A,E,IL) 4.2% (CA)	56,068	28,536
1806.32	Other, not filled:				
.20	Preparations wholly of ground cocoa beans in blocks, slabs, or bars, not filled, containing not over 32 percent butterfat and 60 percent sugar, weighing 2 kg or less	5% ad val.	Free (A,E,IL) 3% (CA)	9,134	7,925
.40	Food preparations containing cocoa, other than chocolate, in blocks, slabs, or bars, not filled, each weighing 2 kg or less, n.e.s.i	7% ad val.	Free (A,E,IL) 4.2% (CA)	([3])	8,072
1806.90.00	Chocolate and other food preparation containing cocoa, n.e.s.i	7% ad val.	Free (A,E,IL) 4.2% (CA)	94,759	102,838

[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 of Trade in Civil Aircrat (C); United States-Canada Free-Trade Agreement (CA); Caribbean Basin Economic Recovery Act (E); and United States-Israel Free-Trade Act (IL).
[2] Included below.
[3] Included above.
Source: U.S. exports and imports compiled from data of the U.S. Department of Commerce.

Table A-4
Semiprocessed cocoa and chocolate products: U.S. shipments, exports of domestic merchandise, imports for consumption, and apparent consumption, 1987-91

Year	U.S. shipments[1]	U.S. exports	U.S. imports[2]	Apparent U.S. consumption	Ratio of imports to consumption
	Quantity (1,000 kilograms)				Percent
1987	427,605	12,158	293,611	709,058	44
1988	560,164	15,062	272,842	817,944	33
1989	569,123	23,058	274,390	820,455	33
1990	696,608	33,031	275,249	938,826	29
1991	627,643	29,467	276,894	875,070	32
	Value (1,000 dollars)				
1987	1,046,500	27,897	674,608	1,693,211	40
1988	(3)	37,293	591,859	(3)	-
1989	(3)	63,283	487,437	(3)	-
1990	(3)	93,362	461,302	(3)	-
1991	(3)	79,679	468,632	(3)	-

1 Data are estimates based on 1987 actual shipments as reported by the U.S. Department of Commerce, with estimates based on trend in the cocoa bean grind.
2 Data before 1989 are estimated.
3 Not available.

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

Table A-5
Unsweetened chocolate: U.S. shipments, exports of domestic merchandise, imports for consumption, and apparent consumption, 1987-91

Year	U.S. shipments[1]	U.S. exports	U.S. imports[2]	Apparent U.S. consumption	Ratio of imports to consumption
	Quantity (1,000 kilograms)				Percent
1987	47,310	2,651	38,105	82,764	46
1988	61,976	3,857	35,454	93,573	38
1989	62,967	1,505	74,633	136,095	55
1990	77,072	6,307	97,384	168,149	58
1991	69,442	3,085	91,099	157,456	58
	Value (1,000 dollars)				
1987	150,100	5,262	91,770	236,608	39
1988	(3)	6,261	73,198	(3)	-
1989	(3)	2,983	81,130	(3)	-
1990	(3)	15,248	79,866	(3)	-
1991	(3)	5,382	63,055	(3)	-

1 Data are estimates based on 1987 actual shipments as reported by the U.S.Department of Commerce, with estimates based on trend in the cocoa bean grind.
2 Data before 1989 are estimated.
3 Not available.

Note.—Production of cocoa paste (unsweetened chocolate) is considerably larger than that shown by the shipment figures reported here because the bulk of such production is used in making other cocoa and chocolate products within the same plant (hence, not included in shipment figures).

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

Table A-6
Confectioners' coatings: U.S. shipments, exports of domestic merchandise, imports for consumption, and apparent consumption, 1987-91

Year	U.S. shipments[1]	U.S. exports	U.S. imports[2]	Apparent U.S. consumption	Ratio of imports to consumption
	Quantity (1,000 kilograms)				Percent
1987	43,182	2,630	4,416	44,968	10
1988	56,569	2,827	3,084	56,826	5
1989	57,474	1,935	4,779	60,318	8
1990	70,348	1,760	4,841	73,429	7
1991	63,383	1,699	6,965	68,649	10
	Value (1,000 dollars)				
1987	95,700	2,479	6,576	99,797	7
1988	(3)	3,134	4,757	(3)	-
1989	(3)	2,235	6,611	(3)	-
1990	(3)	1,852	6,605	(3)	-
1991	(3)	2,064	8,274	(3)	-

1 Data are estimates based on 1987 actual shipments as reported by the U.S. Department of Commerce, with estimates based on trend in the cocoa bean grind.
2 Data before 1989 are estimated.
3 Not available.

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

Table A-7
Sweetened cocoa powder: U.S. shipments, exports of domestic merchandise, imports for consumption, and apparent consumption, 1987-91

Year	U.S. shipments[1]	U.S. exports	U.S. imports[2]	Apparent U.S. consumption	Ratio of imports to consumption
	Quantity (1,000 kilograms)				Percent
1987	113,989	1,459	1,245	113,775	1
1988	149,326	1,777	3,510	151,059	2
1989	151,715	5,066	3,654	150,303	2
1990	185,699	7,124	1,767	180,332	1
1991	167,314	7,277	1,865	161,902	1
	Value (1,000 dollars)				
1987	270,000	2,858	405	267,547	(3)
1988	(4)	4,362	1,934	(4)	-
1989	(4)	12,937	2,830	(4)	-
1990	(4)	18,469	2,352	(4)	-
1991	(4)	17,410	2,237	(4)	-

1 Data are estimates based on 1987 actual shipments as reported by the U.S. Department of Commerce, with estimates based on trend in the cocoa bean grind.
2 Data before 1989 are estimated.
3 Less than 0.5 percent.
4 Not available.

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

Table A-8
Cocoa butter: U.S. shipments, exports of domestic merchandise, imports for consumption, and apparent consumption, 1987-91

Year	U.S. shipments[1]	U.S. exports	U.S. imports	Apparent U.S. consumption	Ratio of imports to consumption
	Quantity (1,000 kilograms)				Percent
1987	12,020	1,788	79,774	90,006	89
1988	15,747	1,113	78,286	92,920	84
1989	15,998	2,009	64,353	78,342	82
1990	19,582	4,049	92,165	107,698	85
1991	17,644	2,426	93,169	108,387	85
	Value (1,000 dollars)				
1987	57,100	5,347	348,930	400,683	87
1988	(2)	5,180	303,600	(2)	-
1989	(2)	7,041	202,380	(2)	-
1990	(2)	15,434	270,185	(2)	-
1991	(2)	9,740	279,011	(2)	-

[1] Data are estimates based on 1987 actual shipments as reported by the U.S. Department of Commerce, with estimates based on trend in the cocoa bean grind.
[2] Not available.

Note.—Production of cocoa butter is considerably larger than that shown by the shipment figures reported here becasue the bulk of production is used in making sweetened chocolate within the same plant (hence not included in shipment figures).

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

Table A-9
Sweetened chocolate, in bars or blocks weighing 10 pounds or more each: U.S. shipments, exports of domestic merchandise, imports for consumption, and apparent consumption, 1987-91

Year	U.S. shipments[1]	U.S. exports	U.S. imports[2]	Apparent U.S. consumption	Ratio of imports to consumption
	Quantity (1,000 kilograms)				Percent
1987	169,736	2,967	66,616	233,385	29
1988	222,354	4,524	61,150	278,980	22
1989	225,911	11,430	73,235	287,716	25
1990	276,515	8,213	20,812	289,114	7
1991	249,140	10,891	28,159	266,408	11
	Value (1,000 dollars)				
1987	395,700	10,636	107,135	492,199	22
1988	(3)	16,791	109,218	(3)	-
1989	(3)	36,146	129,935	(3)	-
1990	(3)	35,033	35,382	(3)	-
1991	(3)	37,730	53,425	(3)	-

[1] Data are estimates based on 1987 actual shipments as reported by the U.S. Department of Commerce, with estimates based on trend in the cocoa bean grind.
[2] Data before 1989 are estimated.
[3] Not available.

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

Table A-10
Unsweetened cocoa powder: U.S. shipments, exports of domestic merchandise, imports for consumption, and apparent consumption, 1987-91

Year	U.S. shipments[1]	U.S. exports	U.S. imports[2]	Apparent U.S. consumption	Ratio of imports to consumption
	Quantity (1,000 kilograms)				Percent
1987	41,368	663	103,455	144,160	72
1988	54,192	964	91,358	144,586	63
1989	55,058	1,113	53,736	107,681	50
1990	67,392	5,578	58,280	120,094	49
1991	60,720	4,089	55,637	112,268	50
	Value (1,000 dollars)				
1987	77,900	1,315	119,792	196,377	61
1988	(3)	1,565	99,152	(3)	-
1989	(3)	1,941	64,551	(3)	-
1990	(3)	7,326	66,912	(3)	-
1991	(3)	7,353	62,630	(3)	-

[1] Data are estimates based on 1987 actual shipments as reported by the U.S. Department of Commerce, with estimates based on trend in the cocoa bean grind.
[2] Data before 1989 are estimated.
[3] Not available.

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

Table A-11
Cocoa, chocolate, and confectionery: U.S. imports for consumption, by principal sources, 1987-91

Item	1987	1988	1989	1990	1991
			Quantity (1,000 kg)		
Brazil	[1]	[1]	126,394	151,583	137,459
Ivory Coast	[1]	[1]	82,339	115,223	133,839
Canada	[1]	[1]	63,775	70,795	77,898
Netherlands	[1]	[1]	47,518	53,444	42,841
Ecuador	[1]	[1]	45,922	65,566	59,888
Malaysia	[1]	[1]	30,419	43,213	44,587
West Germany	[1]	[1]	23,845	24,890	31,309
United Kingdom	[1]	[1]	18,090	19,637	18,129
Dominican Republic	[1]	[1]	36,497	47,401	39,620
Indonesia	[1]	[1]	13,377	39,711	74,266
All other	[1]	[1]	186,829	191,581	203,770
Total	682,242	630,022	675,005	823,054	863,706
			Value (1,000 dollars)		
Brazil	[1]	[1]	183,751	192,421	189,561
Ivory Coast	[1]	[1]	125,312	137,507	154,351
Canada	[1]	[1]	116,149	133,255	151,626
Netherlands	[1]	[1]	83,488	95,108	66,963
Ecuador	[1]	[1]	64,781	87,915	75,062
Malaysia	[1]	[1]	49,159	65,659	73,766
West Germany	[1]	[1]	48,208	52,722	67,790
United Kingdom	[1]	[1]	38,618	47,775	44,644
Dominican Republic	[1]	[1]	45,662	46,332	33,135
Indonesia	[1]	[1]	16,996	44,697	77,286
All other	[1]	[1]	385,999	363,965	367,960
Total	1,470,884	1,256,646	1,158,123	1,267,356	1,302,144
			Unit value (dollars per kg)		
Brazil	[1]	[1]	1.45	1.27	1.38
Ivory Coast	[1]	[1]	1.52	1.19	1.15
Canada	[1]	[1]	1.82	1.88	1.95
Netherlands	[1]	[1]	1.76	1.78	1.56
Ecuador	[1]	[1]	1.41	1.34	1.25
Malaysia	[1]	[1]	1.62	1.52	1.65
West Germany	[1]	[1]	2.02	2.12	2.17
United Kingdom	[1]	[1]	2.13	2.43	2.46
Dominican Republic	[1]	[1]	1.25	.98	.84
Indonesia	[1]	[1]	1.27	1.13	1.04
All other	[1]	[1]	2.01	1.77	1.81
Average	2.16	1.99	1.72	1.54	1.51

[1] Country-level detail is provided only for years in which there are actual trade data under the Harmonized Tariff Schedule of the United States (HTS).

Note.—Because of rounding, figures may not add to the totals shown.

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

Table A-12
Cocoa, chocolate, and confectionery: U.S. exports of domestic merchandise, by principal markets, 1987-91

Item	1987	1988	1989	1990	1991
			Quantity (1,000 kg)		
Canada	([1])	([1])	25,116	104,830	60,196
Mexico	([1])	([1])	18,385	21,751	24,555
Japan	([1])	([1])	14,376	10,571	7,810
Korea, South	([1])	([1])	4,361	4,699	3,893
Philippines	([1])	([1])	3,509	3,087	3,187
Hong Kong	([1])	([1])	3,379	2,564	3,018
Taiwan	([1])	([1])	4,085	3,528	2,665
Australia	([1])	([1])	1,191	1,810	2,009
Netherlands	([1])	([1])	82	1,453	0
United Kingdom	([1])	([1])	1,463	1,266	1,514
All other	([1])	([1])	10,421	10,416	12,607
Total	40,879	57,135	86,368	165,975	121,454
			Value (1,000 dollars)		
Canada	([1])	([1])	60,108	133,150	146,324
Mexico	([1])	([1])	43,158	51,358	65,415
Japan	([1])	([1])	51,601	49,271	40,435
Korea, South	([1])	([1])	15,543	17,436	14,009
Philippines	([1])	([1])	13,779	13,862	12,652
Hong Kong	([1])	([1])	10,638	11,904	12,037
Taiwan	([1])	([1])	10,739	10,062	8,293
Australia	([1])	([1])	2,616	4,449	5,193
Netherlands	([1])	([1])	140	4,376	0
United Kingdom	([1])	([1])	3,276	3,130	3,496
All other	([1])	([1])	25,898	29,399	36,668
Total	123,773	181,111	237,496	328,397	344,522
			Unit value (dollars per kg)		
Canada	([1])	([1])	2.39	1.27	2.43
Mexico	([1])	([1])	2.35	2.36	2.66
Japan	([1])	([1])	3.59	4.66	5.18
Korea, South	([1])	([1])	3.56	3.71	3.60
Philippines	([1])	([1])	3.93	4.49	3.97
Hong Kong	([1])	([1])	3.15	4.64	3.99
Taiwan	([1])	([1])	2.63	2.85	3.11
Australia	([1])	([1])	2.20	2.46	2.58
Netherlands	([1])	([1])	1.72	3.01	0
United Kingdom	([1])	([1])	2.24	2.47	2.31
All other	([1])	([1])	2.49	2.82	2.91
Average	3.03	3.17	2.75	1.98	2.84

[1] Country-level detail is provided only for years in which there are actual trade data under the new Schedule B (based on the Harmonized Tariff Schedule of the United States).

Note.—Because of rounding, figures may not add to the totals shown.

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

Table A-13
Cocoa, chocolate, and confectionery: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1987-91[1]

Item	1987	1988	1989	1990	1991
U.S. exports of domestic merchandise:					
Brazil	([2])	([2])	0	0	0
Ivory Coast	([2])	([2])	0	0	0
Canada	([2])	([2])	60	133	146
Mexico	([2])	([2])	43	51	65
Japan	([2])	([2])	51	49	40
Netherlands	([2])	([2])	([3])	4	0
Ecuador	([2])	([2])	0	0	0
Malaysia	([2])	([2])	0	0	0
All other	([2])	([2])	83	91	94
Total	124	181	237	328	345
EC-12	([2])	([2])	5	10	7
OPEC	([2])	([2])	5	5	8
ASEAN	([2])	([2])	17	17	16
CBERA	([2])	([2])	11	12	12
Pacific Rim	([2])	([2])	108	110	96
U.S. imports for consumption:					
Brazil	([2])	([2])	184	0	0
Ivory Coast	([2])	([2])	125	0	0
Canada	([2])	([2])	116	133	146
Mexico	([2])	([2])	0	0	0
Japan	([2])	([2])	0	0	0
Netherlands	([2])	([2])	83	95	67
Ecuador	([2])	([2])	65	88	75
Malaysia	([2])	([2])	49	66	74
All other	([2])	([2])	536	555	590
Total	124	181	1,158	1,267	1,302
EC-12	([2])	([2])	249	281	262
OPEC	([2])	([2])	146	151	178
ASEAN	([2])	([2])	97	155	185
CBERA	([2])	([2])	62	63	46
Pacific Rim	([2])	([2])	121	181	214
U.S. merchandise trade balance:					
Brazil	([2])	([2])	-184	-192	-190
Ivory Coast	([2])	([2])	-125	-138	-154
Canada	([2])	([2])	-56	0	-6
Mexico	([2])	([2])	-43	-51	-65
Japan	([2])	([2])	-51	-49	-40
Netherlands	([2])	([2])	-52	-91	-67
Ecuador	([2])	([2])	-65	-88	-75
Malaysia	([2])	([2])	-49	-66	-74
All other					-496
Total	-1,347	-1,076	-921	-939	-957
EC-12	([2])	([2])	-244	-271	-255
OPEC	([2])	([2])	-141	-276	-170
ASEAN	([2])	([2])	-80	-138	-169
CBERA	([2])	([2])	-51	-51	-34
Pacific Rim	([2])	([2])	-13	-71	-118

[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-level detail is provided only for years in which there are actual trade data under the Harmonized Tariff Schedule of the United States (HTS) and the new Schedule B (based on HTS).
[3] Less than 0.5 percent.

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

APPENDIX B
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 upon 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 Albania, Armenia, Belarus, Bulgaria, the People's Republic of China, Czechoslovakia, Estonia, Hungary, Kazakhstan, Kyrgystan, Latvia, Lithuania, Moldova, Mongolia, Poland, Russia, and the Ukraine 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 Ac*** (CBERA) affords nonreciprocal tariff preference: to developing countries in the Caribbean Basil area to aid their economic development and to di versify and expand their production and exports The CBERA, enacted in title II of Public Lav 98-67, implemented by Presidential Proclamatio 5133 of November 30, 1983, and amended by th Customs and Trade Act of 1990, applies to mer chandise entered, or withdrawn from warehous for consumption, on or after January 1, 1984; thi tariff preference program has no expiration date Indicated by the symbol "E" or "E*" in the spe cial subcolumn of column 1, the CBERA provide duty-free entry to eligible articles, and reduced duty treatment to certain other articles, which ar the product of and imported directly from desig nated countries, as set forth in general not 3(c)(v) to the HTS.

Preferential rates of duty in the special subcolum of column 1 followed by the symbol "IL" are ap plicable to products of Israel under the ***Unite States-Israel Free Trade Area Implementatio Act*** of 1985 (IFTA), as provided in general not 3(c)(vi) of the HTS. Where no rate of duty i provided for products of Israel in the special sub column for a particular provision, the rate of dut in the general subcolumn of column 1 applies.

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

Preferential nonreciprocal duty-free or reduced duty treatment in the special subcolumn of col umn 1 followed by the symbol "J" or "J*" in pa rentheses is afforded to eligible articles the prod uct of designated beneficiary countries under th ***Andean Trade Preference Act*** (ATPA), enacted i title II of Public Law 102-182 and implemente by Presidential Proclamation 6455 of July 2, 199 (effective July 22, 1992), as set forth in gener note 3(c)(ix) to the HTS.

Other special tariff treatment applies to particul ***products of insular possessions*** (general no 3(a)(iv)), goods covered by the ***Automotive Pro***

ucts Trade Act (APTA) (general note 3(c)(iii)) and the ***Agreement on Trade in Civil Aircraft*** (ATCA) (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 108 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, man-made 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 40 supplying countries, including the four largest suppliers: China, Hong Kong, the Republic of Korea, and Taiwan.