Industry & Trade Summary

Eggs

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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 eggs covers the period 1989 through 1993 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 agricultural, animal, and vegetable products sector.

USITC publication number	*Publication date*	*Title*
2459	November 1991	Live Sheep and Meat of Sheep
2462	November 1991	Cigarettes
2477	January 1992	Dairy Produce
2478	January 1992	Oilseeds
2511	March 1992	Live Swine and Fresh, Chilled, or Frozen Pork
2520	June 1992	Poultry
2524	August 1992	Fresh or Frozen Fish
2545	November 1992	Natural Sweeteners
2551	November 1992	Newsprint
2612	March 1993	Wood Pulp and Waste Paper
2615	March 1993	Citrus Fruit
2625	April 1993	Live Cattle and Fresh, Chilled or Frozen Beef and Veal
2631	May 1993	Animal and Vegetable Fats and Oils
2635	May 1993	Cocoa, Chocolate, and Confectionery
2636	May 1993	Olives
2639	June 1993	Wine and Certain Fermented Beverages
2693	November 1993	Printing and Writing Paper
2726	January 1994	Furskins
2737	March 1994	Cut Flowers
2749	March 1994	Paper Boxes and Bags
2762	April 1994	Coffee and Tea
2865	April 1995	Malt Beverages
2859	May 1995	Seeds
2875	May 1995	Certain Fresh Deciduous Fruits
2898	June 1995	Certain Miscellaneous Vegetable Substances and Products
2918	August 1995	Printed Matter

[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 profiles the U.S. and major foreign egg[1] industries. Information is provided on U.S. and foreign egg production and trade, tariff and nontariff measures, and the performance of the U.S. egg industry in domestic and foreign markets. The period reviewed is 1989-93.

The U.S. egg industry comprises several distinct sectors. The primary sectors are shell eggs and processed egg products. The shell egg sector produces table eggs, breaking eggs, and hatching eggs.[2] The egg products sector produces various liquid, frozen, and dried egg products.[3] The eggs included in this summary are primarily of poultry.[4] Virtually all such eggs and egg products, except for hatching eggs, are of chickens. A substantial share of hatching eggs is of turkeys, with a small share accounted for by ducks, geese, and guineas. A small portion of the U.S. egg market is represented by hatching eggs of other birds, such as the ratite birds, which are emus and ostriches.

U.S. egg production increased 6 percent during 1989-93 to about 6 billion dozen, valued at $4.7 billion. Domestic producers dominate the U.S. egg market. During the period under review, U.S. egg exports peaked at $140 million and represented about 3 percent of production in 1991, while U.S. egg imports were highest at $35 million and provided about 1 percent of consumption in 1993. Apparent U.S. consumption of eggs increased 4 percent during 1989-93 and approached 6 billion dozen. Per capita egg consumption was flat during the period and ranged between 234-237 eggs annually.[5] A 7-percent decline in the per capita consumption of shell eggs (which totaled 179 eggs in 1993) was offset by a 25-percent rise in the per capita consumption of egg products (56 in 1993).

The production process for eggs involves several distinct stages (figure 1). The process begins with the hatching of baby birds, which are either added to the breeder stock or grown for meat or egg production. The next stage involves the growing of the birds to sexual maturity for breeding or to egg-producing age (usually about 18 weeks).[6] The final stage is the production of table eggs and egg products. By far, the major variable production cost is feed (mainly corn and soybean meal). Other variable cost items include labor and packaging. Capital is the major fixed cost item in egg production, as the egg production process is highly mechanized.

Table eggs are used by individual households as a primary food item, particularly for breakfast meals, and as ingredients in food items, such as baked goods. About 90 percent of U.S. egg supplies is white; the remainder is brown. Table eggs are also used by restaurants, food processors, and other food institutions for the same purposes. The share of table eggs consumed outside the home is believed to have increased in recent years, as more consumers frequent fast food establishments for convenience. Breaking eggs are used by egg processors to produce various egg products, as described above. Hatching eggs are used by poultry breeders to produce breeder stock or growing stock (to produce eggs or meat). Egg products are used by the processed foods industry mainly as an ingredient in the production of food items such as baked goods, confectionery, mayonnaise, pasta, and salad dressings. In recent years, the share of total egg production that is utilized in further-processed food products has increased, reflecting an increased consumer demand for convenience. The shift also occurred as the demand for table eggs declined in the face of such consumer health concerns as cholesterol and salmonella.

U.S. INDUSTRY PROFILE

The U.S. egg industry is among the largest and most advanced in the world. The United States accounted for approximately 12 percent of total world production of eggs in 1993, trailing China and the European Union (EU) (appendix A, table A-1; figure 2). The U.S. industry pioneered many of the basic production methods currently in use throughout the world. Endowed with a favorable climate, state-of-the-art production technology, advantageous cost and market structures, and vigorous domestic competition, the U.S. egg industry is among the world's most efficient. The industry has experienced a decline in demand in recent years for traditional products such as fresh table eggs, owing mainly to consumer health concerns regarding cholesterol. This decline has contributed to a shift from the production and consumption of table eggs to further-processed egg products.

[1] This summary covers eggs of birds only. Other kinds of eggs are not included.

[2] This sector also derives revenue from the sale of spent laying hens.

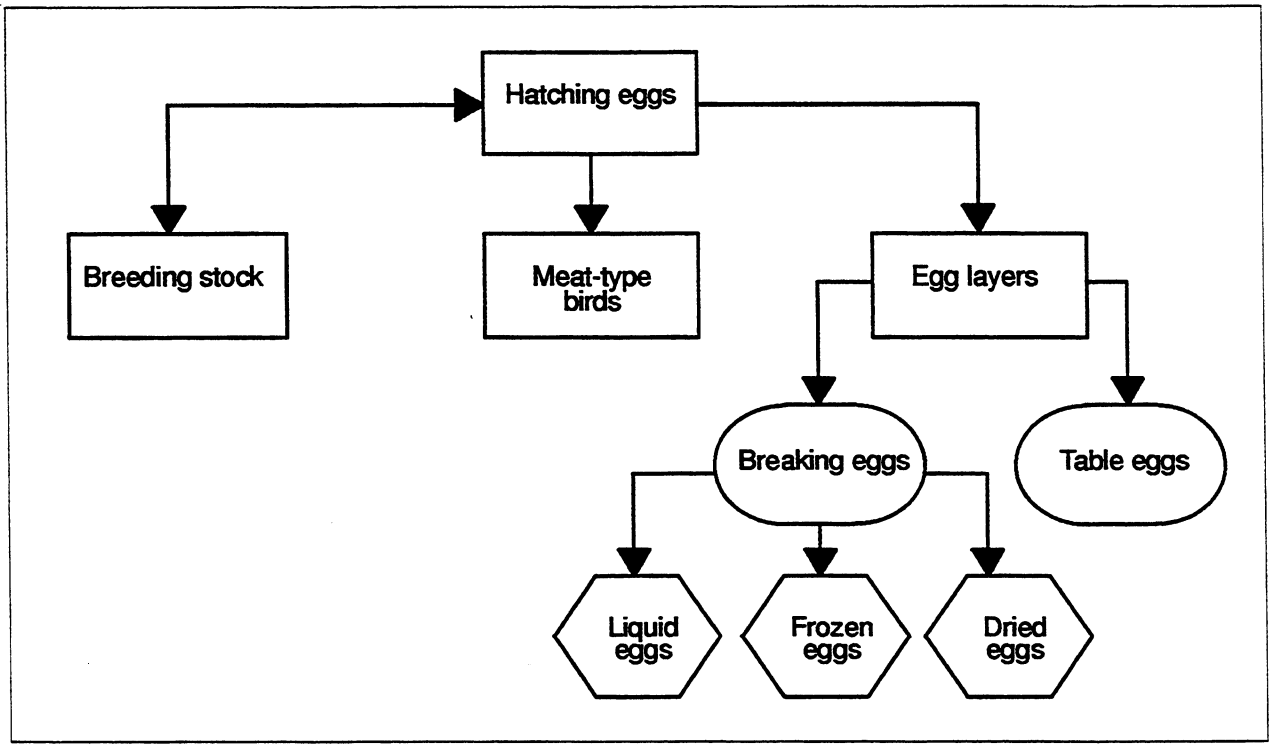
[3] These products may be of whole eggs, or of separated yolks or albumen. Other ingredients, such as sugar or salt, may be added.

[4] Chickens, turkeys, ducks, geese, and guineas.

[5] Including shell eggs and egg products.

[6] A common industry practice to improve egg production is force molting. Molting, a natural process by which birds renew their feathers, interrupts egg production. By inducing, or forcing, molting, the interruption period is reduced from about 4 months to 2 months, and the productive life of a laying hen is extended.

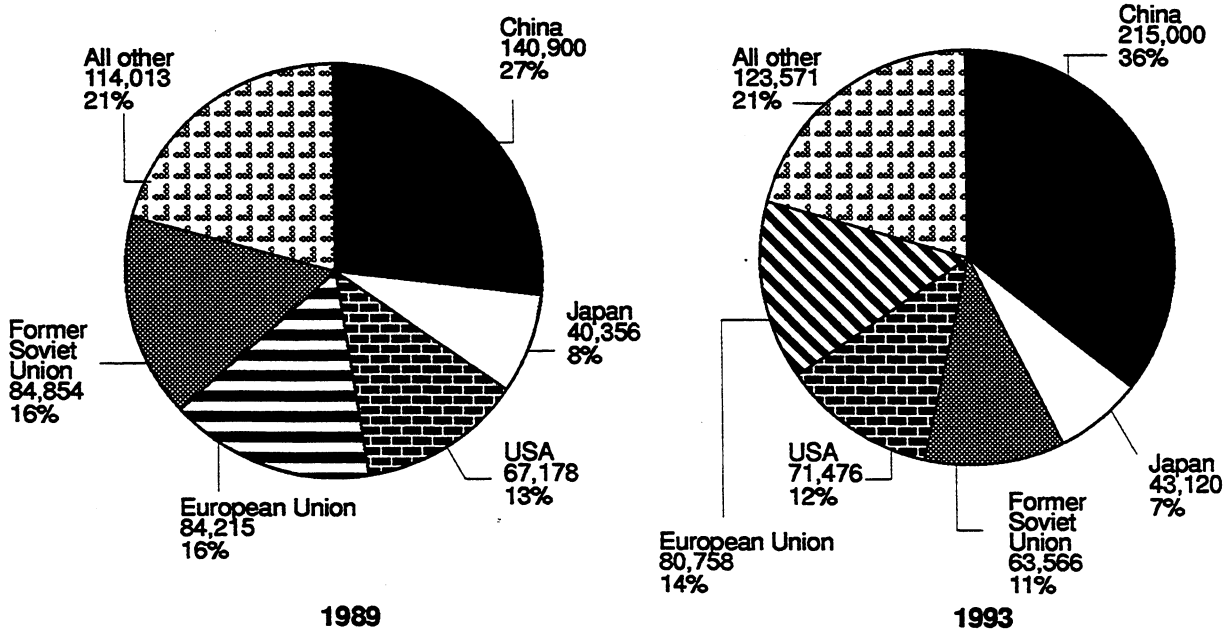
Figure 1
Eggs: Production stages



Source: U.S. International Trade Commission.

Figure 2
Eggs: World production, by principal countries, 1989 and 1993

Million dollars



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

Industry Structure

The U.S. egg industry is covered under the following Standard Industrial Code (SIC) industry numbers:

SIC number	Description
0252	Chicken Eggs
0253	Turkeys and Turkey Eggs
0254	Poultry Hatcheries
0259	Poultry and Eggs, Not Elsewhere Classified
2015	Poultry Slaughtering and Processing
5144	Poultry and Poultry Products (wholesale trade)

Figure 3 shows the general structure of the U.S. egg industry. Major producer types include poultry breeders, hatcheries, egg packers, and egg products producers. Principal products include hatching eggs, table eggs, and egg products. Principal consumers include poultry and egg producers, food processors, restaurant and foodservice facilities, and retail groceries.

Number of Firms and Production Facilities

Egg production occurs at two levels—the farm level, where shell eggs are produced, and the processing level, where table eggs are processed and egg products are produced. The following tabulation shows the number of egg farms, by type, in 1987 and 1992 (data from the 1987 and 1992 *Census of Agriculture*):

Type	Number	
	1987	1992
Chicken eggs	13,343	10,636
Turkeys and turkey eggs	3,239	3,361
Poultry hatcheries	385	427
Poultry and eggs, not elsewhere classified	2,263	2,368
Total	19,230	16,792

The total number of farms that reported egg production dropped from 19,230 in 1987 to 16,792 in 1992, or by 13 percent. The bulk of the decline was accounted for by chicken egg farms, the number of which fell 20 percent during 1987-92. This drop was precipitated mainly by a long-term trend toward fewer and larger farms to capture economies of scale. The number of other farms increased during the period, mainly the result of a rise in demand for poultry meat.

The most common measure of industry capacity is the number of layers. The tabulation at the bottom of page shows the average annual size of the U.S. laying flock and the share of the flock force molted during 1989-93 (data from U.S. Department of Agriculture (USDA), National Agricultural Statistics Service).

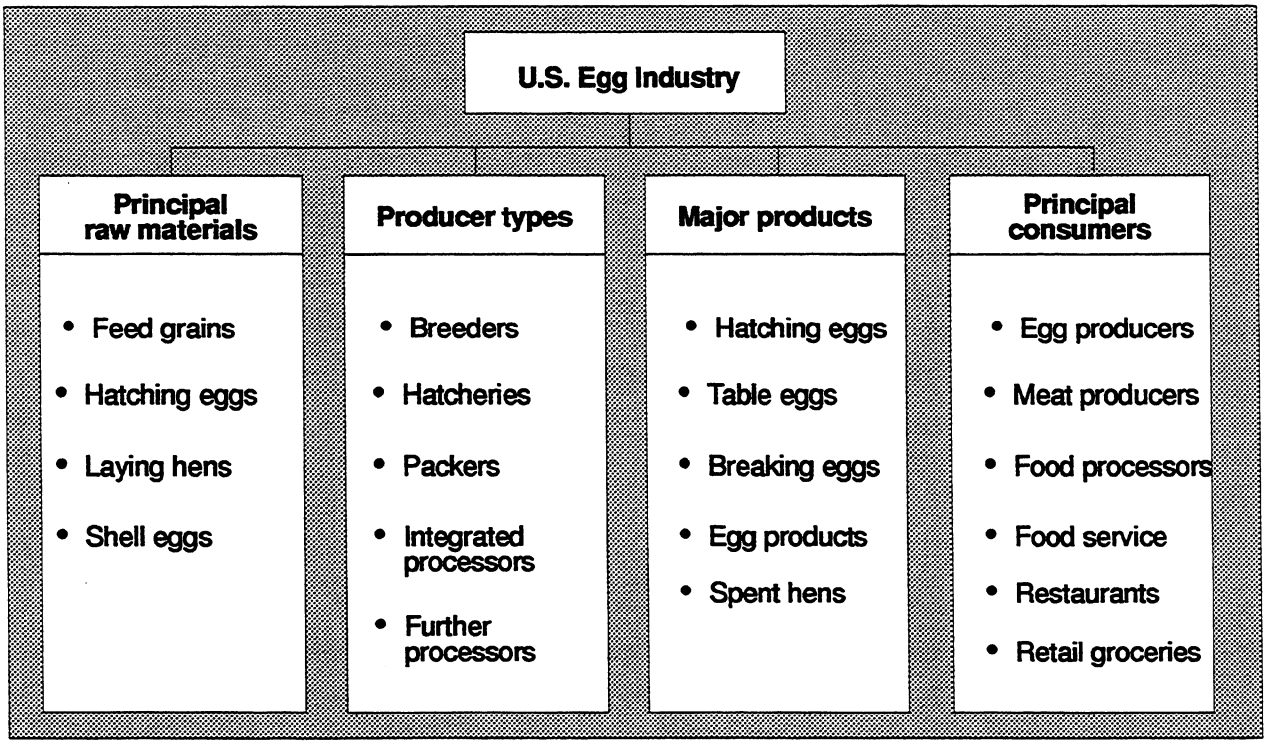
During 1989-93, the total U.S. laying flock rose by 5 percent. The table egg layer flock rose irregularly by 3 percent, because the market for table eggs was stagnant and an increasing share of shell egg production was utilized by an expanding egg products sector. The hatching egg flock increased by 19 percent during the period, mainly in response to an expanding market for poultry meat. The share of the flock that completed force molting declined during 1989-92, reflecting a younger flock, before rising in 1993.

The next level of production capacity comprises shell egg packing plants,[7] hatcheries, and egg products plants. The number of shell egg packing plants declined 35 percent during 1989-93 and totaled 977 in 1993 (table A-2). Although federal inspection is voluntary, in 1993, 167 plants opted for such inspection (table A-2). The decline was mainly a result of rationalization of production facilities caused by mergers and acquisitions and a long-term trend toward larger plants. The number of Federally inspected egg products plants[8] totaled 84 in 1993, down from 91 in 1989 (table A-2). The number of hatcheries dropped 10 percent from 505 in 1989 to 453 in 1993

[7] These plants sort, clean, and pack shell eggs.
[8] These plants break shell eggs and produce liquid, frozen, and dried eggs.

	1989	1990	1991	1992	1993
	1,000 layers				
Flock type:					
Table eggs	230,346	228,833	231,551	233,848	236,940
Hatching eggs	38,816	41,195	43,341	44,064	46,195
Total	269,162	270,028	274,892	277,912	283,135
	Percent of total				
Force molt:					
In progress	4.1	3.0	3.0	3.7	4.3
Completed	23.9	21.5	20.0	19.5	22.2

Figure 3
U.S. egg industry: Principal raw materials, producer types, major products, and principal consumers



Source: U.S. International Trade Commission.

(table A-2). These declines are attributable to the same factors that affected shell egg packing plants.

Concentration

Concentration in the U.S. egg industry[9] increased during 1989-93 (table A-3). In 1993, the four leading producers accounted for 21 percent of total U.S. shell egg production, up from 14 percent in 1989. The share of the 20 leading producers rose from about one-third in 1989 to nearly one-half in 1993. This increase follows a long-term trend, as leading producers continue to increase in size[10] to achieve economies of scale.

Concentration in the U.S. egg industry varies considerably by sector, and concentration increases in concert with the level of processing (table A-3; figure 4). In 1993, the four leading egg breakers accounted for 56 percent of production and the four leading further processors[11] accounted for 59 percent. The share of output accounted for by the 20 leading producers was 90 percent for egg breakers and 95 percent for further processors.

Geographic Distribution

California is the leading table egg-producing State, accounting for about 11 percent of the nation's total in 1993 (table A-4; figure 5). Other important producing States include Pennsylvania (9 percent), Indiana (8 percent) and Ohio (8 percent). The location of the table egg industry has been determined largely by land and labor costs, environmental constraints, feed supplies, major distribution channels, the growth and shifts in the location of the egg products sector, and the historical development of a vertically integrated egg production and support network. These factors contributed to a shift in table egg production during 1989-93 from California and non-top-10 States mainly to Midwestern States such as Iowa, Nebraska, and Ohio.[12]

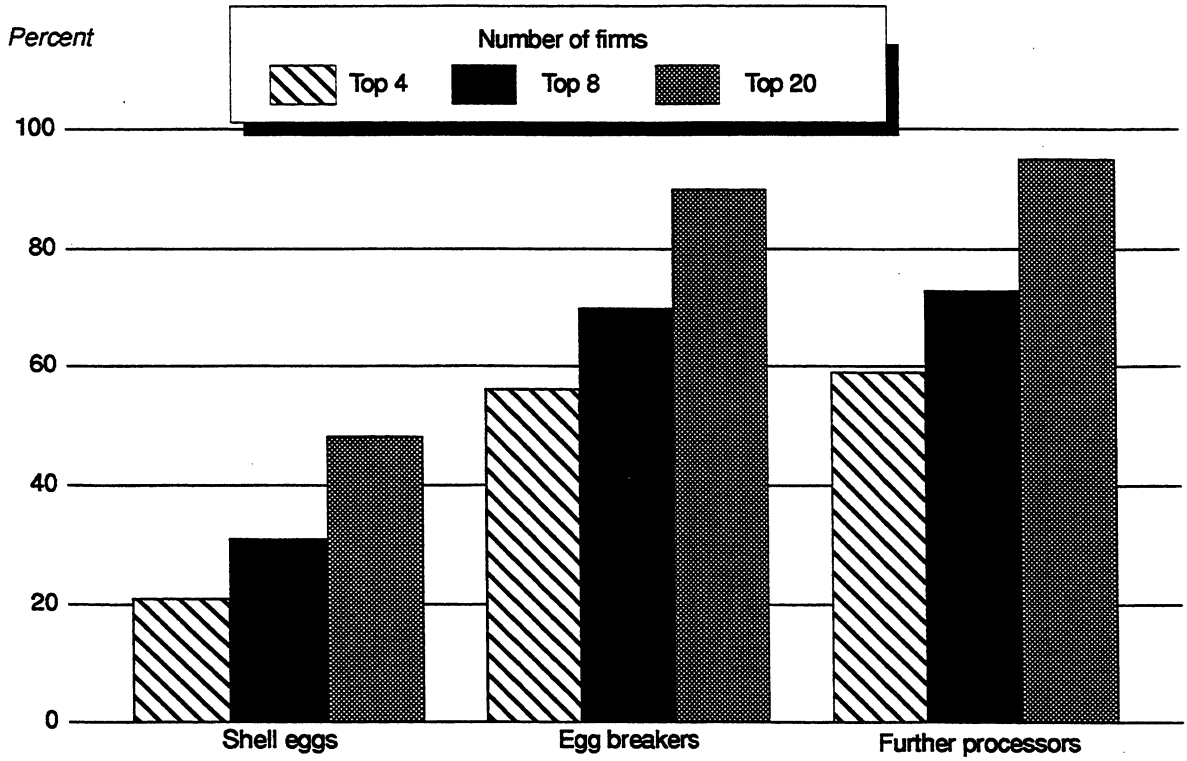
[9] As measured by the flock size of major U.S. shell egg producers.

[10] Mainly through a combination of mergers and acquisitions and the building of new production capacity.

[11] Mainly producers of frozen and dried egg products.

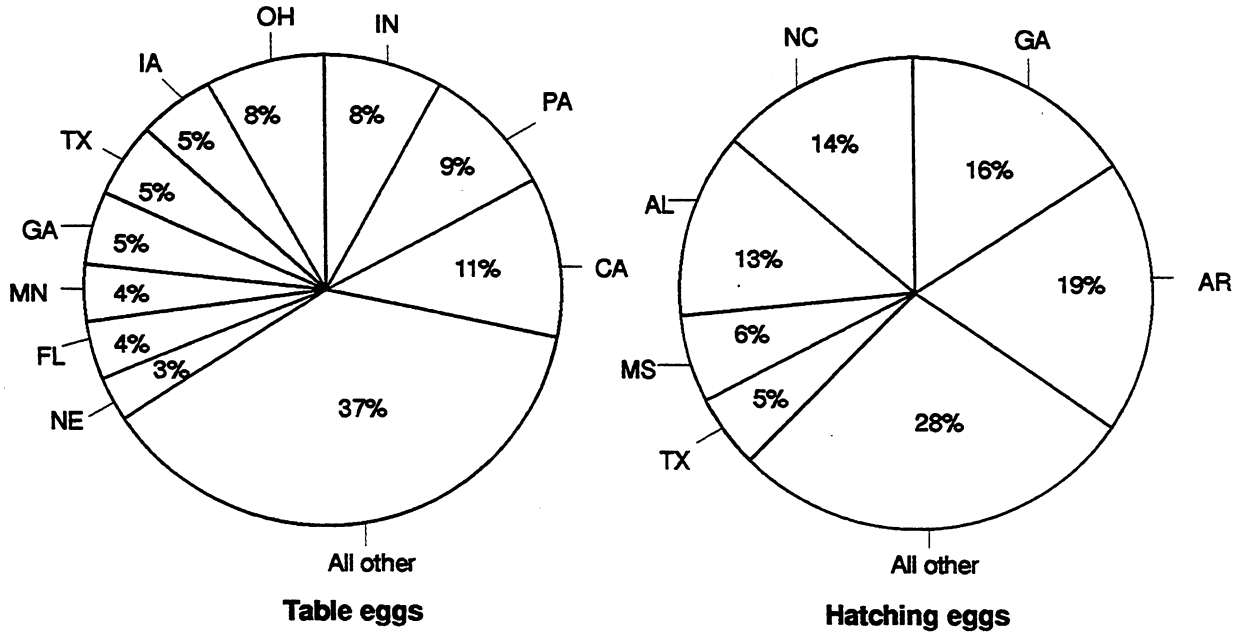
[12] See, for example, Mary C. Harding, "What are they giving away in Iowa?," *Egg Industry*, July/August 1994, pp. 16-20.

Figure 4
Eggs: Share of U.S. production, by sectors, 1993



Source: Estimated by the staff of the U.S. International Trade Commission, based on data from *Egg Industry*, various issues, and the U.S. Department of Agriculture.

Figure 5
Eggs: Geographic industry distribution of total U.S. production, by sectors and States, 1993



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

The hatching egg sector is much less dispersed geographically than the table egg sector. Arkansas is the leading producer State, accounting for 19 percent of total U.S. hatching egg production in 1993 (table A-4; figure 5). Other major producer States include Georgia (16 percent), North Carolina (14 percent) and Alabama (13 percent). Hatching egg producers generally are located near poultry meat and egg producers, their major markets. The distribution of hatching egg producers did not significantly change during 1989-93.

California led all States with 11 egg products plants (table A-4). Regionally, most egg products plants are in the Midwest—Minnesota had 8 plants in 1993; Iowa, 7; Nebraska, 7; Wisconsin, 5; and, Indiana, 5. Regional concentration of egg products production is determined largely by nearness to shell egg supplies, major end users, and the relatively small number of producers compared with shell eggs. There has been a general contraction in the number of plants in this sector across the United States during 1989-93.

Productivity

There are several measures of productivity in the egg industry. The principal ones are the hatchability ratio, which measures the share of hatching eggs that are successfully hatched; the rate of lay, which measures the number of eggs laid per hen during a year; and the feed-conversion ratio, which measures the amount of feed required to produce a quantity of eggs. The hatchability ratio for chickens has remained above 80 percent in recent years; this ratio is somewhat lower for turkeys and other types of poultry. The rate of lay was relatively stable during 1989-93 and reached 252 eggs per layer in 1993. The feed-conversion ratio is about 4 pounds of feed per dozen eggs. Most of the large gains in productivity in the egg industry were captured prior to the period under review, as the industry was transformed from a relatively large number of small-scale operations to a smaller number of large, vertically integrated complexes. Current productivity gains tend to be incremental.

The level of automation in the U.S. egg industry has risen mainly because of technological innovations and increasing vertical integration. Hatcheries employ sophisticated breeding techniques and incubating machinery; layer grow-out and egg production operations are generally computerized and environmentally controlled; and egg-processing plants use automated assembly-line processing and packaging lines.

Skilled scientific and technical staff are required for the research and development associated with selective breeding, hatching, and the development of optimal feed and growing conditions. Egg processors employ skilled engineers to develop and maintain highly efficient processing operations and managers to compete in an increasingly competitive global market.

Integration

Vertical integration has been a key factor in the growth and development of the U.S. egg industry. Industry characteristics that contributed to this structure include a relatively short production cycle (involving fast turnover and high production volumes that lead to economies of scale) and the linkages between specialized, discrete production stages (hatching, growout, laying, processing, and marketing).[13] Vertical integration is realized either through contracts (mainly backward integration in the growout stage) or ownership (both backward integration in the feed and hatching chick stages and forward integration in the further processing and marketing stages).

Horizontal integration in the U.S. egg industry has also increased in the long run. Many of the top U.S. egg producers are large agribusiness firms engaged in a wide range of agricultural activities.

Profitability

The U.S. egg industry generally experienced positive returns during the years 1989-93 (table A-5). Net returns for table egg producers ranged from 1.9 cents per dozen in 1992 to 16.6 cents per dozen in 1990. The trend in net returns tracked wholesale prices, because production costs were virtually constant during the period. Large annual variations in net returns are not unusual in the U.S. egg industry, owing mainly to price volatility.

Marketing Methods

Most hatching eggs are produced and utilized by shell egg producing firms to obtain laying hens, or by poultry meat producers to obtain growing stock. A relatively small share of hatching egg production is marketed by breeding firms to egg and poultry meat producers as breeder stock.

Most table eggs are sold through distributors, who then sell mainly to retail outlets (principally grocery stores) and public eating places (such as restaurants). Egg packers also directly market a substantial portion of their output to retail outlets, institutional foodservice operators, and other processors (who further process products for sale to retail outlets and restaurants, mostly fast-food outlets).

Most egg products are marketed directly by processors or through distributors to food processors and institutional foodservice operators. A relatively small share is marketed to retail outlets.

[13] These stages are specialized for a variety of reasons, including poultry lifecycle factors, disease avoidance concerns, and economic efficiency measures.

Egg marketing channels and methods have changed substantially over the years, particularly during the past decade. A much greater share of egg production currently is marketed through restaurants, particularly fast-food outlets, than in the past. Also, a greater share of egg production is marketed to egg breakers for further processing, as consumer demand for convenience foods has increased.

Prices

Commodity wholesale prices for shell eggs generally are set at markets and production areas around the country based on price quotes published at various frequencies by various State departments of agriculture, the USDA, and private organizations. The published price information is collected daily by these organizations through telephone contacts with sources such as egg packers, wholesalers, and brokers. Producers generally offer price variations based on the published quotes, depending on daily market conditions. There are various price categories for shell eggs, depending on the destination.

Table eggs generally are sorted and graded by size and quality and priced accordingly, with larger, higher quality eggs priced higher than those that are smaller and lower in quality. Shell eggs destined for egg processors generally are marketed as "nest run"[14] and are lower in price than graded, table eggs. Retail egg prices are set principally by retail outlets, which usually add a markup to the wholesale price that mainly reflects overhead costs. Retail outlets will, from time to time, feature eggs as a "loss leader" or a "tie in" to other products in order to attract customers to their establishments.

Prices for various egg product types and market levels generally dropped in 1992 (table A-6; figure 6). In 1993, most egg prices firmed, except for retail prices for table eggs.

Price discovery has been a long-term concern in the egg industry, as a relatively small share of wholesale egg sale transactions largely determines wholesale egg prices. Although about 95 percent of egg sales are conducted under pre-negotiated contracts, contract prices are based on price quotations for wholesale sales representing about 3 percent of the total market.[15] Efforts to improve price discovery have included the establishment of nest run trading as a price benchmark in 1966 and the development of daily trailer load egg sales reports in 1988.[16]

[14] Nest run refers to ungraded lots of eggs. Nest run eggs comprise many different size and quality categories.

[15] "Importance of wholesale egg trading on price discovery," *Egg Industry*, July/Aug. 1994, p. 28.

[16] "Trading News," *Egg Industry*, March 1995.

U.S. Government Programs

The U.S. egg industry generally does not benefit from directly targeted U.S. Government programs with regard to production assistance. General agricultural programs that affect the egg industry include loans provided by the Farmers Home Administration at below-market rates for operating and capital expenses, Federal and State inspection and research services, and special tax provisions. In addition, programs that affect the U.S. feed grain industry (mainly corn), such as land set-aside and acreage-reduction programs, deficiency payments to producers, and export-enhancement programs, affect feed prices and, therefore, egg production costs.

In contrast, U.S. shell egg exports have received direct benefits provided by the U.S. Department of Agriculture under the Export Enhancement Program (EEP). The EEP provides bonus payments for exports of shell eggs to approved markets. This program was initiated in May 1985 to help U.S. exporters of certain agricultural products, including eggs, meet competition in third-country markets from egg exports from major foreign producers benefiting from export assistance programs of foreign governments, such as France.[17] The levels and trends of U.S. shell egg exports under the EEP are discussed later in this report.

U.S. egg exports periodically have been eligible for credit guarantees under the Export Guarantee Program generally known as GSM-102.[18] The GSM-102 program guarantees repayment (to exporters or their assignees) of short-term loans (6 months to 3 years) made to eligible foreign markets for approved U.S. agricultural exports. The following tabulation shows available funding, registered exports, and the quantity and value of egg exports covered under GSM-102 during fiscal years 1989-93 (unpublished data from the U.S. Department of Agriculture, Foreign Agricultural Service (FAS), in millions of dollars and million dozen):[19]

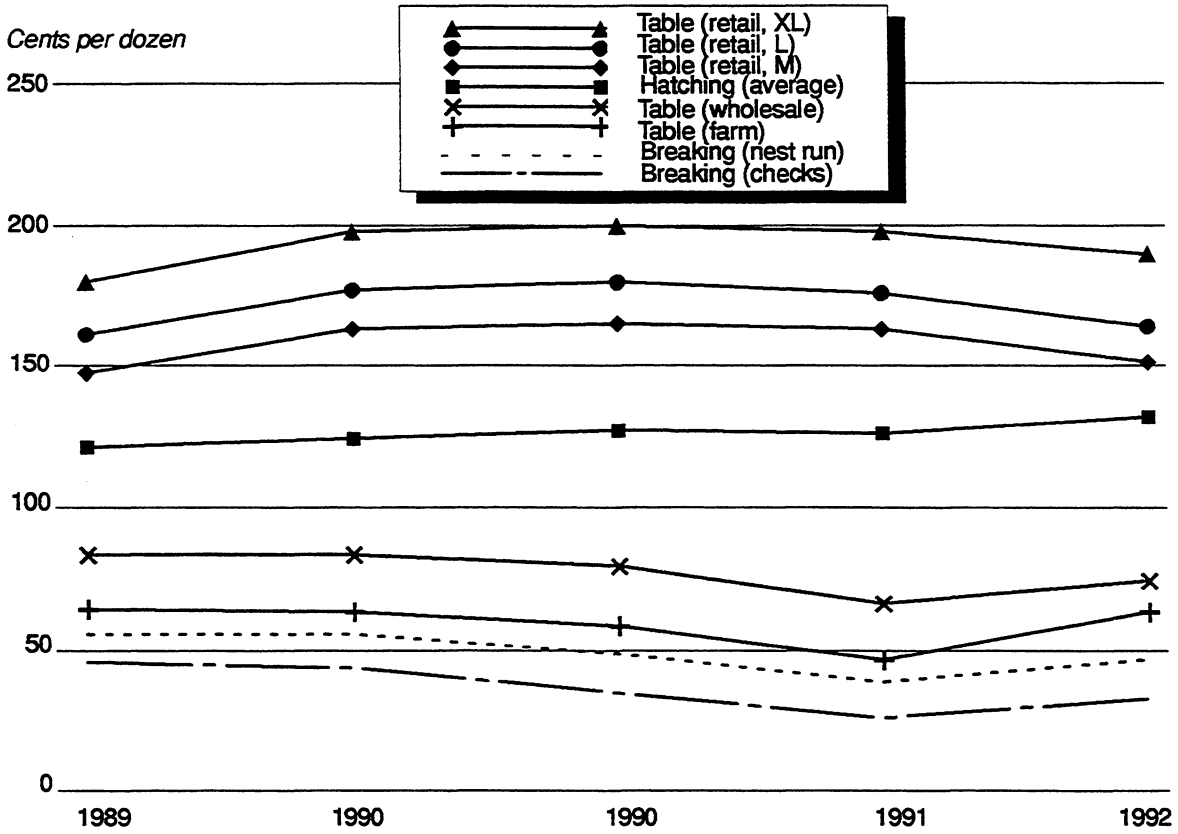
	1989	1990	1991	1992	1993
Available	0	0	$2.0	$4.0	$4.0
Registered ..	0	0	2.0	4.0	1.8
Exported:					
Value	0	0	1.8	0.8	3.2
Quantity ...	0	0	3.3	1.5	5.4

[17] See, for example, *Agricultural Export Assistance Update Quarterly Report* USDA, Foreign Agricultural Service, July 1993, p. 5.

[18] The program is administered by the USDA under the Food, Agriculture, Conservation, and Trade Act of 1990, 7 U.S.C. 5621 [Public Law 101-624, 104 Stat. 3672].

[19] All table egg exports covered under GSM-102 during the period were destined for Mexico.

Figure 6
Shell eggs: Prices, by types and levels, 1989-93



Note.—Checks are eggs with cracks.

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

These data do not indicate any actual outlays but rather represent the principal amounts that were covered by the GSM-102 program.[20]

The U.S. egg industry also benefits from the Market Promotion Program (MPP) established by the Food, Agriculture, Conservation, and Trade Act of 1990.[21] This program, formerly called the Targeted Export Assistance Program, provides funding to various trade promotion organizations to assist foreign market development activities, such as advertising, attendance at trade shows, and so forth. The U.S. Poultry and Egg Export Council, Inc. was allocated $7.1 million in fiscal year 1993 under the MPP.[22]

The current American Egg Board (AEB) was established in 1974 under the Egg Research and Consumer Information Act.[23] The AEB administers research, education, and promotional activities for the egg industry. Funding for the AEB is provided by assessments on U.S. egg producers with flocks of at least 75,000 laying hens. The current rate of assessment is 20 cents per case (30 dozen) produced.

U.S. Government Regulations

The production and marketing of eggs and egg products are subject to requirements under the Egg Products Inspection Act (EPIA).[24] The EPIA requires and provides for the continuous inspection of the processing of egg products and the control and disposition of restricted shell eggs (loss,[25] leakers,[26]

[20] The amount exported in a given year may exceed the amount registered owing to carryover from previous periods.

[21] 7 U.S.C. 5623 [Public Law 101-624, 104 Stat. 3674].

[22] USDA, Foreign Agricultural Service (FAS), *Agricultural Export Assistance Update Quarterly Report* July 1993.

[23] 7 U.S.C. 2701 et seq. [Public Law 93-428].

[24] 21 U.S.C. 1031 et seq.

[25] Eggs that are unfit for human consumption because of leakage, contamination, blood or meat spots, or being incubator rejects.

[26] Eggs with broken or cracked shells and with their contents leaking.

inedible,[27] incubator rejects,[28] checks,[29] and dirties[30]) in intrastate, interstate, and foreign commerce, and uniform standards, grades, and weight classes for eggs in interstate commerce. Checks and dirties are restricted to movement to official egg breaking plants for proper disposition, while leakers, inedible, loss, and incubator rejects must be destroyed, denatured, or otherwise handled to prevent their use as human food. Egg products processing is restricted to approved facilities and is subject to continuous inspection (including raw materials, operating procedures, and sanitation) and labeling requirements.

The production and marketing of egg products in the United States are subject to specific standards promulgated by the Food and Drug Administration (FDA).[31] These standards generally apply to ingredients, production processes, and labeling.

The USDA is in the process of implementing a new, voluntary inspection system called the Hazard Analysis and Critical Control Point (HACCP) System. The HACCP system stresses the prevention of contamination by identifying and controlling points in the production and processing system that are prone to contamination hazards. The egg products sector currently is participating in a pilot test project with the USDA with the aim of implementing the HACCP system, on a voluntary basis, by late 1995.[32]

Eggs and egg products are also subject to food labeling regulations of the FDA.[33] These regulations provide for mandatory labeling of nutrition information, including fat and cholesterol levels; definitions for descriptive terms such as "light," "lean," and "fresh"; and conditions for health claims concerning calcium and osteoporosis, fat and cardiovascular disease, fat and cancer, and salt and hypertension.

Consumer Characteristics and Factors Affecting Demand

The final consumer of eggs is the general population, which consumes eggs and egg products either in the home or in restaurants and institutions, as a main food item, or as an ingredient in other items. Home egg consumption is greatest in households that are relatively small in size, have lower than average incomes, and are located in rural Southern States.[34] Consumption of eggs is affected by many factors, including the size of the population, disposable income, consumer preferences (largely determined by tastes), consumer health concerns (mainly fat and cholesterol), product attributes (convenience and nutritional value), and the price of eggs relative to prices of competing protein sources. The price elasticity of demand for table eggs recently has been estimated to be -.1103,[35] which suggests that price changes have a relatively small effect on the quantity demanded. Although estimates for the income elasticity of demand for eggs are not available, data from one study indicate that consumption of table eggs tends to decrease as consumer income increases.[36] This suggests that table eggs are an inferior good in the U.S. market.[37]

A major concern of both egg consumers and producers in recent years is cholesterol in eggs. Numerous medical studies have linked cholesterol, which is found in eggs, to heart disease, and it is generally held that this linkage has adversely affected the U.S. egg market.[38] Under USDA and American Heart Association nutritional guidelines, an average egg contains about 213 milligrams of dietary cholesterol, or 71 percent of the recommended daily allowance of 300 milligrams. The U.S. egg industry, mainly under the auspices of the Egg Nutrition Center of the American Egg Board, has responded to the negative implications of egg cholesterol content by sponsoring research regarding the link between cholesterol and health, by sponsoring research to lower the cholesterol content of eggs, and by sponsoring a consumer education program promoting the use of eggs in moderation as part of a balanced diet. One recent study found no significant variation in blood cholesterol level for young male subjects consuming between zero and four eggs per day.[39]

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[27] Eggs that have rot, mold, blood rings, or embryo chicks.

[28] Eggs that have been unsuccessfully incubated.

[29] Eggs with broken or cracked shells but with shell membranes intact and not leaking.

[30] Eggs that have adhering dirt, foreign material, or prominent stains on their shells.

[31] 21 CFR 160.

[32] Staff telephone interview with an official of the USDA, Agricultural Marketing Service, Sept. 23, 1994.

[33] 21 CFR 100-169.

[34] Steven M. Lutz, David M. Smallwood, James R. Blaylock, and Mary Y. Hama, *Changes in Food Consumption and Expenditures in American Households During the 1980's*, USDA, ERS, Statistical Bulletin No. 849, Dec. 1992.

[35] Kuo S. Huang, *A Complete System of U.S. Demand for Food*, USDA, ERS, Technical Bulletin No. 1821, Sept. 1993, p. 27.

[36] Lutz, et al.

[37] An inferior good is one for which the quantity demanded declines as income increases.

[38] See, for example, U.S. House, Committee on Agriculture, *Egg Research and Consumer Information Act Amendments of 1993: Hearing Before the Subcommittee on Livestock of the Committee on Agriculture*, 103rd Cong., 1st sess., Sept. 14, 1993, p. 41.

[39] H.N. Ginsberg, et al., "A Dose Response Study of the Effects of Dietary Cholesterol on Fasting and Postprandial Lipid and Lipoprotein Metabolism in Healthy Young Men," *Arteriosclerosis and Thrombosis*, American Heart Association, Apr. 1994, pp. 576-586.

Another recurring concern in the U.S. egg market has been the contamination of eggs by the virus Salmonella enteritidis (salmonella). Several outbreaks of salmonella in the past have been blamed on eggs. A particularly damaging incident occurred in 1988 when the American Medical Association (AMA), referring to an article in the *Journal of the American Medical Association*, stated that eggs were the major source of salmonella outbreaks in the Northeast during the period January 1985-May 1987.[40] Concern was focused not only on the storage, handling, and cooking of eggs, but also on the possibility that the virus could infect eggs as they were being formed inside layers. This incident resulted in a rise in research regarding the introduction of salmonella during the egg production process and an increase in consumer education efforts regarding proper egg handling and preparation.

The salmonella issue has adversely affected the consumption of shell eggs,[41] but it has resulted in increased demand for egg products, which generally are processed by methods (pasteurization, drying) that eliminate salmonella. For example, a number of large foodservice chains switched their egg purchases from fresh shell eggs to pasteurized liquid eggs following the report.[42] The U.S. egg industry has responded to the salmonella issue with a voluntary salmonella control program that tests for the existence of salmonella in egg laying flocks and the disposition of salmonella-associated eggs.

FOREIGN INDUSTRY PROFILE

Global egg production expanded both in quantitative and geographic terms during 1989-93. The level of egg production during the period increased 12 percent to 597 billion eggs in 1993 (table A-1; figure 7). The primary global egg producers include China (36 percent of the total in 1993), the EU (14 percent), the United States (12 percent), and the Former Soviet Union (11 percent). These producing areas comprise most of the world's population. In general, egg production declines in the EU and the Former Soviet Union were outpaced by increases in China, the United States, and other countries during 1989-93.

Global egg production is split evenly between brown eggs and white eggs (table A-7), with increasing brown egg production in recent years.[43] The bulk of global brown egg production (in terms of the number of layers) occurs in China (42 percent in 1991), followed by Western Europe (19 percent). White egg production is more evenly distributed between North America (22 percent), the Commonwealth of Independent States (CIS) (19 percent), China (16 percent), and Asia (14 percent). Brown eggs, which accounted for about 49 percent of total global egg production in 1991, represent a relatively large share of total egg production in Western Europe (75 percent), China (70 percent), Central Europe (65 percent), and Africa (65 percent). White egg production is the largest component in North America (90 percent), the Middle East (75 percent), the CIS (70 percent), Asia (65 percent), and South America (60 percent). The individual country variations within the Western European region ranged from virtually total brown egg production in 1992 in the United Kingdom, Portugal, Italy, and Ireland to half in Germany (table A-8). In aggregate, brown egg layers in Western Europe increased from a quarter of the total in 1970 to more than three quarters in 1992.

Global egg exports ranged between 16.7 billion and 17.4 billion eggs annually during 1989-93 (table A-9; figure 8).[44] The primary exporters in 1993 were the EU (three-quarters of the world total in 1993), the United States (11 percent), and China (5 percent). In 1993, global egg exports accounted for about 3 percent of production (tables A-1 and A-9). Following is a profile of the major global egg-producing industries.

China

China is the world's largest egg producer, accounting for 36 percent of total world production in 1993 (table A-1; figure 2) totaling 215 billion eggs that year. The Chinese egg industry traditionally has been domestically-oriented and relatively unsophisticated compared with Western industries. However, modern egg complexes have been built in recent years as the Chinese egg industry has expanded rapidly, aided by relatively low production costs (especially feed and labor), increasing imports of quality breeder stock, advances in disease control, and the entry of specialized egg producers into the market. In addition, the Chinese Government has promoted egg production, particularly in urban vicinities, as part of its "vegetable basket" program.[45] However, according to the USDA,

[40] Robert H. Brown, "Egg industry counters AMA report on salmonella outbreaks in Northeast," *Feedstuffs*, Apr. 11, 1988, p. 1.

[41] See, for example, Gary Thornton, "Salmonella Enteritidis: The Undefined Threat," *Egg Industry*, Jan./Feb. 1991, p. 18.

[42] John B. Hinge, "BonDente Develops Way To Pasteurize Eggs in the Shell," *Wall Street Journal*, Aug. 19, 1991.

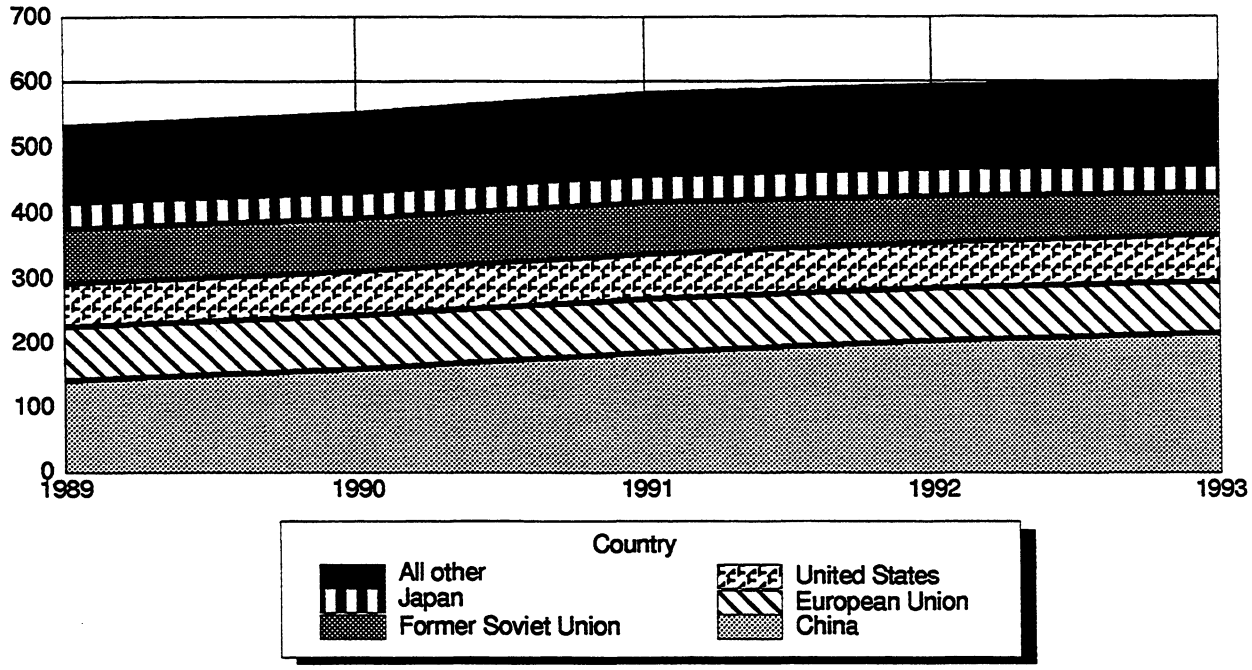
[43] Theo Peters, "Developments in the Brown Egg Market," *Poultry International*, Oct. 1993, p. 62.

[44] Including intra-EU trade. Exports ranged between 5.5 billion-7.0 billion eggs annually during 1989-93 excluding such trade.

[45] USDA, FAS, *China 1993 Annual Poultry Report*, Report No. CH4024, U.S. Embassy, Beijing, June 17, 1994, p. 17. This program was initiated in 1994 to counter a trend towards residential and industrial development of agricultural land on the outskirts of major urban areas.

Figure 7
Eggs: World production, by principal countries, 1989-93

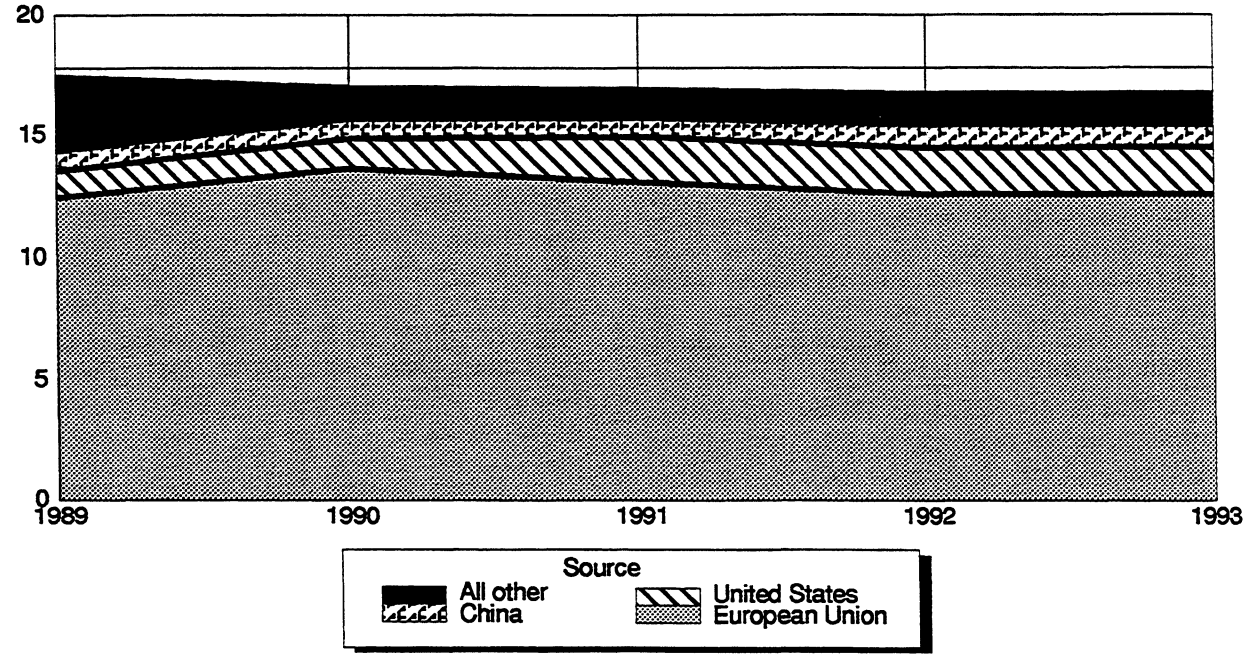
Billion eggs



Source: Compiled from official statistics of the U.S. Department of Agriculture and the Food and Agriculture Organization of the United Nations.

Figure 8
Eggs: World exports, by principal sources, 1989-93

Billion eggs



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

recent oversupply conditions and the gradual elimination of producer subsidies likely will limit further expansion.[46] In addition, improvements remain to be made in processing, marketing, and distribution methods.

Chinese egg production is distributed regionally as shown in the following tabulation (data from USDA, FAS, *China 1992 Annual Poultry Report*, Report No. CH9353A, U.S. Embassy, Beijing, June 20, 1993, p. 23, in percent, 1991):

Region	Share of total production
North	39
East	19
Northeast	13
Central	11
Southwest	6
Northwest	6
South	5
Total	100

Chinese egg production, by far, is concentrated in the Northern region of the country. The principal egg producing Provinces include Shangdong (17 percent), Jiangsu (11 percent), Henan (8 percent), and Hebei (7 percent).[47]

The bulk of Chinese egg production, about 80 percent, consists of chicken eggs; most of the remainder is accounted for by duck eggs. Most chicken egg production is of brown eggs and is marketed fresh, while a substantial portion of duck egg production is preserved.[48]

Exports are relatively minor compared with Chinese egg production, but have been rising. Chinese egg exports increased from 814 million pieces in 1989 to 900 million pieces in 1993, or by 11 percent (table A-9). Such exports accounted for less than one-half percent of production in 1993. Most Chinese egg exports are of fresh chicken and duck eggs to Hong Kong and Macau, and the remainder comprises mainly preserved duck eggs destined principally for the United States. In recent years, Chinese fresh chicken egg exports to Hong Kong have encountered increasing competition from U.S. exports.[49]

The USDA reports that the Chinese Government lifted subsidies for producers (mainly for feed) and consumers (prices) in recent years.[50] Producers continue to receive technical assistance from the Chinese National Poultry Industry Association.

European Union

The EU egg industry is the world's second-largest, accounting for 14 percent of global production in 1993 (table A-1; figure 2). However, production contracted 4 percent during 1989-93. The primary EU egg producers are France (19 percent of the EU total in 1993), Germany (18 percent), Italy (14 percent), the United Kingdom (13 percent), and the Netherlands (12 percent). The EU egg industry is structured similarly to that of the United States, with some notable exceptions.

Egg production in France was relatively flat during 1989-93 at around 15 billion eggs annually (table A-1). The French egg industry comprises two main sectors—the commercial sector (85 percent of production), characterized by integrated poultry complexes using caged layers, and the rural sector (15 percent of production), including free-range production.[51] About 98 percent of French egg production is of brown eggs (table A-8). Brittany is the primary egg-producing region in France, providing about 35 percent of the total.[52] There are approximately 228 hatcheries, 3 of which account for about 80 percent of total French production of egg-type[53] hatching eggs. About 3,300 farms account for about 60 percent of French table egg production; 430 of these account for 44 percent of the total. There are approximately 1,400 registered egg packing stations and 75 egg breaking plants in France.[54]

Exports have played an increasing role in the French egg industry in recent years. French egg exports rose 128 percent during 1989-93, accounting for 4 percent of production in 1989 and 8 percent in 1993 (table A-9). The primary export markets are within the EU, principally Spain and Germany.[55]

German egg production declined 17 percent during 1989-93 (table A-1). German egg production is evenly split among white and brown eggs. Germany led the EU in egg production until 1992, at which time it was overtaken by France. The decline was accounted for largely by supply and demand adjustments precipitated by German reunification during the period. About two-thirds of German egg production is accounted for by the former West Germany.[56] German egg exports

[46] USDA, FAS, *China 1992 Annual Poultry Report*, Report No. CH9353A, U.S. Embassy, Beijing, June 20, 1993, p. 24.
[47] Ibid., p. 23.
[48] Ibid.
[49] Ibid., p. 26.
[50] USDA, FAS, *China 1993 Annual Poultry Report*, Report No. CH4024, U.S. Embassy, Beijing, June 17, 1994, p. 17.
[51] "France: Egg Production," *Poultry International*, Feb. 1992, p. 36.
[52] Ibid.
[53] To produce laying hens.
[54] "France: Egg Production," *Poultry International*, Feb. 1992, p. 36.
[55] USDA, FAS, *France 1993 Annual Poultry Report*, Report No. FR4050, U.S. Embassy, Paris, June 20, 1994.
[56] USDA, FAS, *Germany 1993 Annual Poultry Report*, Report No. GM4045, U.S. Embassy, Bonn, June 13, 1994, p. 18.

fluctuated during 1989-93 and represented 10 percent of production in the latter year. Germany was the third-leading EU egg exporter during 1989-93, trailing the Netherlands and Belgium-Luxembourg (table A-9).

Italian egg production was relatively stable at about 11.5 billion eggs during 1989-93 (table A-1). Virtually all Italian egg production consists of brown eggs. Stagnant demand, mainly due to consumer health concerns, and a high degree of producer competition act to limit production.[57] Italian egg exports are minor and represented less than one-half percent of production in 1993 (tables A-1 and A-9).

British egg production was also stagnant during 1989-93 and hovered at about 10.7 billion eggs annually (table A-1). This pattern largely reflected sluggish demand due to consumers' concerns regarding animal welfare and salmonella.[58] The British egg industry comprises two distinct segments. The first comprises five large, integrated producers similar to those in the United States. This segment accounts for two-thirds of British egg production. The second comprises smaller, independent producers. Although about 85 percent of British egg production is accounted for by layers in cages, free-range and perchery (barn) production is also significant. Animal welfare is a sensitive issue in the United Kingdom, and consumers are willing to pay a premium for eggs produced using these less efficient methods.[59]

The Netherlands is the fifth-leading EU egg producer, but is the leading EU egg exporter. Egg production in the Netherlands declined during 1989-93 to 10 billion eggs in the latter year (table A-1). Slightly more than half of Dutch egg production consists of brown eggs. The production chain of the Dutch egg industry is not vertically integrated, but is highly specialized. The industry comprises about 21 hatcheries, 2,973 egg farms, 420 packing stations, and 21 egg products facilities.[60] About one-half of shell egg production is accounted for by 8 percent of Dutch egg farms. Production efficiency increased from 268 eggs per hen in 1985 to 293 eggs per hen in 1990, with a further increase to 329 eggs per hen forecast for 2005.[61] Dutch egg exports fluctuated between 7.4 billion and 8.4 billion eggs annually during 1989-93 (table A-9), representing nearly three-fourths of Dutch egg production in 1993. Most exports consist of intra-EU trade.

The EU egg industry benefits from a variety of measures provided both by the EU and member-country governments. The EU measures, administered under the Common Agricultural Policy (CAP), include the maintenance of minimum (sluicegate[62]) market prices, variable import levies, and export refunds.[63] Member-country government measures vary greatly and include such items as import-licensing requirements, health and sanitary regulations, and tax benefits.

The EU egg industry is facing major changes in its operating environment. The EU has stated that it is committed to CAP reforms owing both to internal economic pressures as well as to GATT obligations.[64] A significant change in terms of impact on trade is a reduction in export refunds agreed to by the EU in the course of the GATT Uruguay Round Agreement (URA) negotiations. The following tabulation shows the level of EU egg export refunds during 1989-93 (in millions of ECU, facsimile from the Economic Research Service (ERS), USDA):

1989	1990	1991	1992	1993[1]
48.4	33.1	35.7	33.0	42.0

[1] Amount appropriated; does not represent actual expenditures.

Under the URA, the level of EU export refunds is to decline to a level not to exceed 22.8 million ECU by the year 2000.

Another major change facing EU egg producers is the regulation of laying hens in battery cages. EU directive 86/113 (readopted as directive 88/166) establishes standards regarding cage dimensions, stocking density, and cage slope.[65] This measure became effective January 1, 1995, and likely will raise production costs for EU egg producers.

[57] USDA, FAS, *Italy 1993 Annual Poultry Report*, Report No. IT4025, U.S. Embassy, Rome, June 20, 1994, pp. 6-7.

[58] USDA, FAS, *UK 1993 Annual Poultry Report*, Report No. UK4021, U.S. Embassy, London, June 17, 1994, pp. 26-32.

[59] Ibid.

[60] H.H.M. Zeelen, "The Netherlands: Developments in Egg Production," *Poultry International*, Sept. 1994, p. 40.

[61] Ibid., p. 41.

[62] A minimum domestic price that is calculated on the basis of feed costs.

[63] See, for example, Commission of the European Communities, *The Agricultural Situation in the Community, 1993 Report, Brussels, 1994.*

[64] See, for example, Commission of the European Communities, *The Agricultural Situation in the Community, 1992 Report*, Brussels, 1993, pp. 9-16.

[65] USDA, FAS, *UK 1992 Annual Poultry Report*, Report No. UK3023, U.S. Embassy, London, June 14, 1993, p. 25. The standards require cages to have an area of 450 square centimeters per bird, a height of 40 centimeters, and a floor slope of 8 degrees. Recommendations may be forthcoming to increase the area to 800 square centimeters.

Former Soviet Union

The Former Soviet Union was the fourth-leading egg producer in the world during 1989-93 (table A-1; figure 2). Its egg production dropped by one-quarter during the period, owing mainly to the dissolution of the Soviet Union and the Council of Mutual Economic Assistance (CMEA) and the resulting economic disruptions.[66] The Former Soviet Union accounted for 16 percent of global egg production in 1989, but declined to 11 percent in 1993. White eggs dominated egg production in the Former Soviet Union, accounting for about 80 percent of total production in 1991.

By far Russia is the primary egg producer of the Former Soviet Union. In 1989, Russia accounted for 58 percent of Soviet egg production;[67] in 1993, Russia alone was the world's fifth-leading egg producer, supplying 6 percent of the world total. Egg production in Russia declined by 22 percent during 1989-93 (table A-1). This decline resulted mainly from adverse economic conditions precipitated by the breakup of the Soviet Union. These conditions have limited supplies of breeder stock, hatching eggs, and feed grains. Geographically, egg production in Russia occurs mainly in the Central (21 percent of the total quantity in 1993), Urals (15 percent), West Siberia (12 percent), and Volga (11 percent) economic regions.[68] Productivity, as measured by the rate of lay, ranged between 179 eggs per layer in the North Caucasus region to 247 in the Urals region and averaged 221 throughout Russia in 1993.[69] Production costs soared 740 percent in 1993 to 16,300 rubles per 1,000 eggs compared with 1,940 rubles the previous year.[70] However, prices rose by nearly as much (710 percent), and egg producers maintained positive average profits in 1993, according to official statistics.[71]

The Russian egg industry is highly concentrated and is organized into regional "ptitseproms."[72] For most of its history, the industry has been owned by the State. However, with the breakup of the Soviet Union, privatization is increasing in the Russian egg industry. In some cases, private, joint-stock companies have been formed from various discrete production operations that formerly composed the regional ptitseproms, with service agreements and some cross-investment occurring between the two.[73] In 1992, 22 percent of Russian egg production was accounted for by the private sector.[74] The Russian Government provides production subsidies for egg producers, particularly since the decontrol of prices. In late 1992, a production subsidy of 1,400 rubles (about $9 at 150 rubles per dollar) per 1,000 eggs was set. In addition, the government purchases the bulk of production from state and collective farms. During 1993, state trading organizations purchased 60 percent of such production, up from 57 percent during the previous year.[75] The Russian egg industry faces considerable uncertainty regarding issues such as government assistance both to producers and consumers, land reform, privatization, business legislation, taxation, foreign investment, financing, and infrastructure (distribution, marketing). Russian exports of eggs are relatively minor and represent a minuscule portion of production (tables A-1 and A-9).

Ukraine is the second-leading egg producer of the Former Soviet Union, accounting for 20 percent of the Soviet total in 1989. Egg production in Ukraine declined 31 percent during 1989-93 (table A-1), for the same reasons affecting Russian production. The Ukrainian egg industry is largely state-owned and is administered by 25 regional ptitseproms. The largest, Kiev ptitseprom, administers 39 poultry and egg operations, of which 19 are state-owned, 18 are collective, and 2 are private.[76] Of these, there are 2 layer hatcheries, 4 layer-growing facilities, and 6 egg-laying operations. The largest Ukrainian egg firm, Kievskaya, produces about 200 million eggs annually, or about 2 percent of the total.[77] Ukrainian egg exports are believed to be minor, with some destined for Poland.[78] The Ukrainian egg industry faces the same uncertainties as the Russian industry.

Japan

Japan provided 7 percent of global egg production in 1993 and was the fifth-leading producer (table A-1; figure 2). Japanese egg exports are insignificant; none were reported in 1992 and 1993. Japanese egg production increased 7 percent during 1989-93 and is

[66] The CMEA, which was disbanded in 1991, comprised the Soviet Union, Poland, East Germany, Czechoslovakia, Romania, Hungary, Bulgaria, Cuba, and Vietnam.

[67] The Soviet Union accounted for 16 percent and Russia 9 percent of world egg production in 1989.

[68] USDA, FAS, *Russia 1994 Annual Poultry Report*, Report No. RS9453A, U.S. Embassy, Moscow, Oct. 7, 1994, p. 10.

[69] Ibid.

[70] Ibid., p. 16.

[71] Ibid.

[72] Ptitseproms are state poultry production and marketing organizations.

[73] "Report from Russia," *Poultry International*, Sept. 1994, p. 44.

[74] USDA, FAS, *Russia 1993 Annual Poultry Report*, Report No. RS3064, U.S. Embassy, Moscow, Aug. 31, 1993, p. 8.

[75] USDA, FAS, *Russia 1994 Annual Poultry Report*, Report No. RS9453A, U.S. Embassy, Moscow, Oct. 7, 1994, p. 12.

[76] Tom Boomsma, "Helping hands for egg production in Kiev," *Egg Industry*, Jan./Feb. 1994, pp. 16-17.

[77] Ibid.

[78] Ibid.

becoming more concentrated with larger scale producers. The total number of Japanese egg farms declined from 62,109 in 1970 to 9,310 in 1991, while the share of the laying flock accounted for by large farms (more than 50,000 layers each) rose from zero in 1970 to nearly 50 percent in 1991.[79] In 1992, large producers (more than 100,000 layers) accounted for only 4 percent of the total number of egg farms but 38 percent of production capacity (in terms of layers).[80] Furthermore, the number of egg farms declined 8 percent in 1992 while the number of layers rose 3 percent; the average flock size increased 10 percent.[81] A "temporary partial tax exemption measure" allowing depreciation of large scale, windowless egg farms contributed to this trend.[82] The productivity of Japanese egg producers increased from 13.7 kilograms per hen in 1970 to 16.4 kilograms per hen in 1990.[83]

U.S. TRADE MEASURES

Tariff Measures

The provisions of the *Harmonized Tariff Schedules of the United States* (HTS) for the eggs covered in this summary are shown in table A-10. This table shows the general and special column-1 rates of duty applicable to U.S. imports of eggs as of January 1, 1994. In addition, the table shows U.S. exports and imports of eggs, by HTS subheading, during 1993. The aggregated trade-weighted average rate of duty for all products included in this summary was equivalent to 0.83 percent ad valorem in 1993. Appendix B includes an explanation of tariff and trade agreement terms. Under the URA, U.S. duties on eggs and egg products are to be reduced in six annual stages by about 20 percent.[84]

Other Trade Measures

U.S. shell egg exports benefit from USDA bonus payments under the Export Enhancement Program (EEP) administered by the Commodity Credit Corporation (CCC). During 1989-93, U.S. exports of shell eggs under the EEP rose 178 percent to about 74 million dozen (table A-11). Bonus payments increased from $412,475 in 1989 to nearly $11 million in 1993 (table A-11; figure 9). The primary EEP-approved market was Hong Kong, which accounted for about three-fourths of the quantity of EEP shell egg exports during 1989-93.

The share of the quantity of total shell egg exports accounted for by EEP exports rose from about 12 percent in 1989 to 52 percent in 1993 (table A-11). EEP bonuses accounted for 2 percent of the total value of exports in 1989; this share rose to 23 percent in 1993 (table A-11; figure 9). EEP bonuses also accounted for a rising share of the unit value of total U.S. egg exports during 1989-93. The ratio of the unit value of EEP bonuses to the unit value of total exports approached nearly one-half during 1993 (table A-11).

Section 411(a) of the Uruguay Round Agreements Act (URAA) [85] extends the EEP through 2001 and requires the CCC "to administer the program in a manner consistent with the U.S. Uruguay Round commitments."[86] The Statement of Administrative Action that accompanied the URAA stated that the CCC is to "administer egg EEP initiatives in a manner to maximize benefits to the entire industry," and that the CCC is to "make particular efforts to enable the U.S. egg industry to maintain a strong presence in Hong Kong."[87]

Under the URA, the United States committed itself to reduce both the quantity of eggs eligible for the EEP program and the export payments made thereunder as follows (data from the USDA, Foreign Agricultural Service, *Poultry: World Markets and Trade*, Circular Series: FL&P 1-94, Jan. 1994, p. 12; quantity in 1,000 dozen, value in $1,000):

	1995	1996	1997
Quantity	30,262	25,593	20,925
Value	7,588	6,391	5,195
	1998	**1999**	**2000**
Quantity	16,256	11,588	6,920
Value	3,998	2,801	1,604

Nontariff Measures

U.S. imports of eggs are subject to animal and plant health and sanitary regulations promulgated by the USDA pursuant to the Egg Products Inspection Act (EPIA), as amended.[88] These regulations generally require that egg imports must comply with any standards, rules, and regulations that apply to the like domestic products.[89] U.S. imports of shell eggs for

[79] Toru Komai, "Two Decades of Changes in Japan," *Poultry International*, June 1993, p. 26. Abstracted from a paper presented at the Laung Suwan International Poultry Symposium, Bangkok.

[80] USDA, FAS, *Japan 1992 Annual Poultry Report*, Report No. JA3068, U.S. Embassy, Tokyo, June 21, 1993, p. 7.

[81] Ibid., pp. 7-8.

[82] Ibid., p. 8.

[83] Komai, p. 27.

[84] Office of the United States Trade Representative, *Draft Uruguay Round Tariff Schedules*, volume I, Agriculture.

[85] Public Law 103-465, 108 Stat. 4809, approved Dec. 8, 1994.

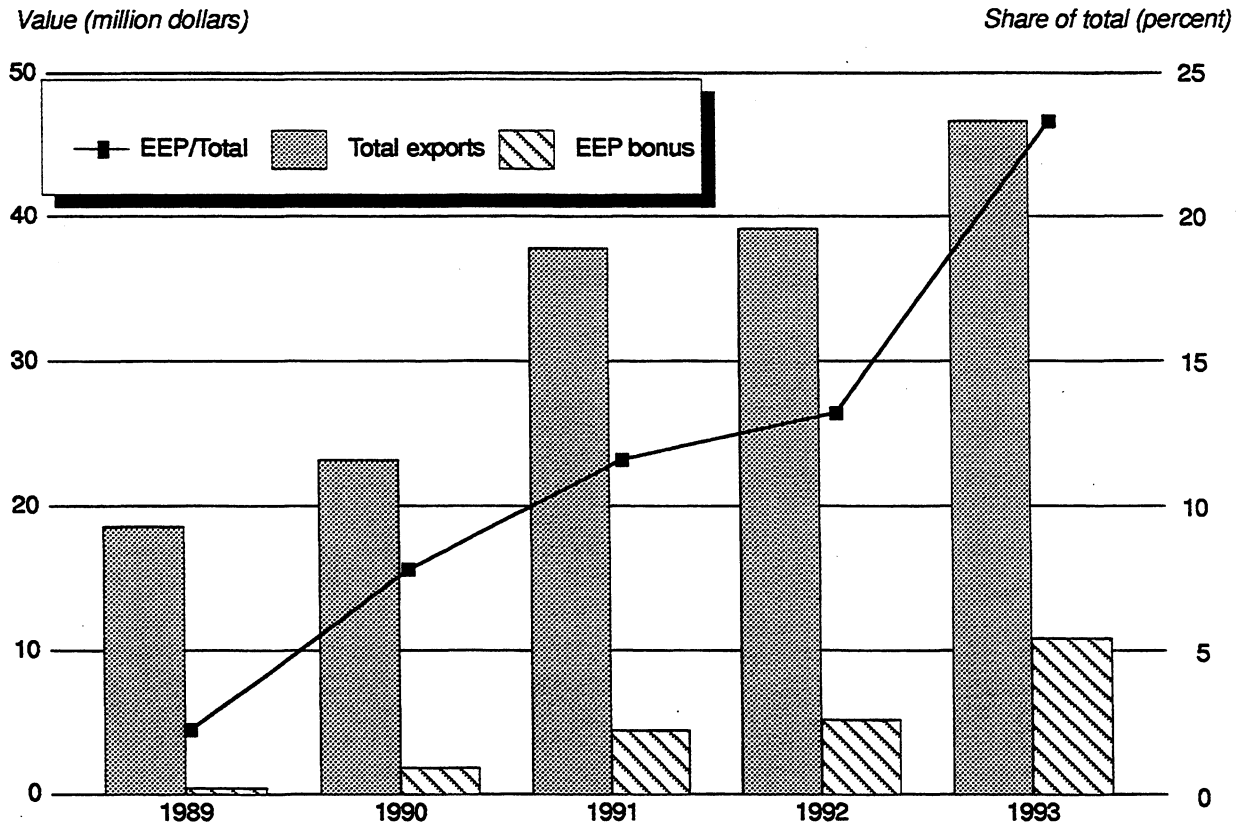
[86] Statement of Administrative Action, submitted by the Administration with proposed Uruguay Round implementing legislation on Sept. 27, 1994, and approved by Congress when it passed the URAA, p. 76. See sec. 101(a) of the URAA.

[87] Ibid., p. 77.

[88] 21 U.S.C. 1031 et seq.

[89] 7 CFR 59.900.

Figure 9
Shell eggs: Total U.S. exports and exports under the Export Enhancement Program, 1989-93



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

human consumption generally are restricted to certain countries certified to be free of various poultry and poultry-borne diseases, including viscerotropic velogenic Newcastle disease.[90]

Imports of hatching eggs may enter from any part of the world but must be accompanied by a foreign inspection certificate insuring the absence of Newcastle disease and other communicable poultry diseases.[91]

Imports of egg products are regulated under the EPIA and by the requirements set forth in the Regulations Governing the Inspection of Eggs and Egg Products.[92]

Imports of eggs and egg products for human consumption are also subject to FDA Requirements for Specific Eggs and Egg Products to ensure that such imports conform to the same standards of identity and labeling requirements as do domestically produced eggs.[93]

Additional U.S. note 3 to the HTS prohibits the importation of eggs of wild birds, except for eggs of game birds imported for propagating purposes under regulations prescribed by the Secretary of the Interior and specimens imported for scientific collections.

Under the Sanitary/Phytosanitary (SPS) Agreement negotiated in the Uruguay Round, members of the World Trade Organization are committed to base SPS trade restrictions on scientific risk-assessment

[90] 9 CFR 94.6(a)(2). Viscerotropic velogenic Newcastle disease is a highly contagious respiratory disease that primarily affects chickens and turkeys. Due to its ability to spread quickly and its potential to devastate commercial egg and meat flocks, this disease is strictly controlled. Countries approved to export shell eggs to the United States, as of September 1994, were Australia, Canada, Chile, Denmark, Fiji, Finland, Great Britain, Iceland, New Zealand, Northern Ireland, Norway, Republic of Ireland, and Sweden. Imports from other countries may be entered only if they meet certain requirements.

[91] 9 CFR 92.5(b).

[92] 7 CFR 2859.900-970. Countries approved to export egg products to the United States, as of September 1994, were Canada and the Netherlands.

[93] 21 CFR 160.

measures and to harmonize such measures.[94] The SPS Agreement also provides for the mutual recognition of equivalent SPS systems and an allowance for regional restrictions regarding animal disease. Thus, the potential exists for regions within a country to be considered free of disease and, therefore, be free from trade restrictions that were formerly applied nationwide.

FOREIGN TRADE MEASURES

Tariff Measures

In general, international rates of duty applicable to imports of hatching eggs are relatively low (duty free in most major markets), whereas such rates for table eggs and processed egg products are relatively high. The rates of duty applicable to egg imports in major foreign markets generally are higher than duty rates for corresponding imports in the U.S. market (tables A-10 and A-12).

Canadian tariff rates for egg imports prior to the URA ranged from 3.5 cents per dozen for shell eggs to 20% ad valorem for dried eggs (table A-12); most egg imports were also subject to quantitative restrictions (as discussed in the following section). As part of the URA, Canada committed to reduce tariffs,[95] convert its quantitative restrictions on certain egg imports to a tariff rate quota system, and reduce both the in-quota and over-quota tariff rates, as shown in table A-13. All Canadian egg tariffs are to be reduced in 5 annual stages between 1995-2000.

Under the URA, Canada also committed to increase the quantity for which the lower, in-quota tariff rates apply. The global initial quota quantity for eggs and egg products, other than for hatching, is 12.822 million dozen eggs, rising to 21.370 million dozen during 1995-2000.[96] The global initial and final quota quantity for broiler hatching eggs and chicks is 7.949 million dozen.[97] In addition, Canada maintained the right to allocate the access between hatching eggs and live chicks (converted to a shell egg basis).[98] The Government of Canada recently indicated that market access levels for U.S. exports of eggs and egg products established under the CFTA (discussed in the following section) will take precedence over the in-quota levels scheduled under the URA for the purposes of applying the in-quota tariff if the CFTA level is greater.[99]

In Hong Kong egg imports enter free of duty; Hong Kong agreed to bind egg duty rates in the URA at zero.

Japanese imports of eggs are subject to duties that range from zero for hatching eggs to 25 percent ad valorem for various egg products (table A-12). Under the URA, Japan has agreed to lower duties by 15 to 24.8 percent by the year 2000.

Mexican duty rates on imports of eggs were 50 percent ad valorem during the period under review. Under the URA, Mexico agreed to lower duties on eggs by between 10 percent and 26 percent by the year 2000. Under the North American Free Trade Agreement (NAFTA), Mexico agreed to eliminate nominal duties on most eggs and egg products in 10 equal annual stages beginning January 1, 1994.[100] However, a previous system of import licenses has been replaced under the NAFTA by a tariff rate quota (TRQ). The TRQ allows duty-free entry of U.S. exports to a level of 9.6 million dozen eggs beginning January 1, 1994; this amount is scheduled to expand by 3 percent annually (compounded) for 10 years. The initial over-quota tariff rate is 50 percent ad valorem; 24 percent of this tariff is to be eliminated during the first 6 years of the NAFTA, with the remainder phased out over the following 4 years.[101] Trade liberalization was not extended to egg trade between Mexico and Canada under the NAFTA.

The EU is not a major market for U.S. exports of eggs, largely because of its restrictive tariff structure. EU duties on imports of eggs and egg products range from 10 to 22 percent ad valorem (table A-12). Virtually all EU egg imports are subject to additional variable levies. These levies generally are applied when import prices fall below a sluicegate price. These variable levies generally are so high as to effectively prohibit imports of eggs from extra-EU sources. Under the URA, the EU committed to reduce tariffs on egg imports by 36 percent and to establish a global minimum market access level for egg imports of 112,000 metric tons in the first year of the agreement, rising to 208,000 metric tons by the end of the sixth year.[102]

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[94] Office of the United States Trade Representative, *Final Texts of the GATT Uruguay Round Agreements Including The Agreement Establishing The World Trade Organization As Signed on April 15, 1994*, Washington, DC, pp.69-83.

[95] On items not subject to quantitative restrictions.

[96] Shell egg equivalent basis. Data from Legal Instruments Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations Done at Marrakesh on 15 April, 1994, Schedule V, Canada.

[97] Ibid.

[98] Ibid.

[99] USDA, FAS, *Canadian-Uruguay Round Implementation*, Report No. 05718, U.S. Embassy, Ottawa, Nov. 8, 1994.

[100] Egg albumen duties were eliminated effective January 1, 1994.

[101] USDA, FAS, *Dairy, Livestock, and Poultry: World Poultry Situation*, Circular Series FL&P 1-93, Jan. 1993, p. 21.

[102] USDA, FAS, *UK Annual Poultry Report, 1994*, Report No. UK4021, U.S. Embassy, London, June 17, 1994, p. 32.

Nontariff Measures

The importation of certain eggs into Canada is regulated by the Canadian Egg Marketing Agency (CEMA) and the Canadian Broiler Hatching Egg Marketing Agency (CBHEMA). Prior to January 1, 1995, these agencies set import quotas on certain eggs as part of domestic supply management regimes (table A-14). The Canadian Government, under the import quota system, periodically allowed for supplemental imports above the quota levels whenever domestic production did not satisfy demand (table A-14). These quotas were liberalized under the United States-Canada Free-Trade Agreement (CFTA) for U.S. exports and have been converted to a tariff rate quota under the URA. U.S. market access under the CFTA, effective January 1, 1989, was set at 21.1 percent of the previous year's Canadian production for broiler hatching eggs (17.4 percent) and chicks (3.7 percent); 1.647 percent of the previous year's production level for shell eggs (except for hatching);[103] 0.714 percent for frozen, liquid, and further processed eggs; and 0.627 percent for powdered eggs. The approximate quantity of annual U.S. exports allowed under these CFTA quotas, based on recent Canadian production levels, was about 14 million dozen eggs.[104]

Under the URA, Canada committed to convert the absolute quota system on egg imports to a tariff rate quota system, as discussed in the previous section. Market access for U.S. egg exports to Canada, in terms of the amount eligible for the in-quota tariff rate, is the greater of the URA or the CFTA quotas.

Mexico restricts the distribution of U.S. eggs imported duty-free under the NAFTA TRQ if these eggs are destined for areas beyond the northern border region. Mexican importers outside these areas are required to participate in an auction system to obtain a portion of the TRQ; auctions are held only in the event domestic supply cannot fulfill demand. No such auctions had occurred as of July 1994.[105]

Imports of eggs into EU member countries are subject to various health and sanitary regulations and restrictions that apply to domestic egg production in each country. These regulations and restrictions currently are being harmonized in conjunction with the EU market integration known as "EC 1992"[106] and are also subject to the Sanitary/Phytosanitary Agreement of the URA, as discussed earlier. The relatively high EU import tariffs and supplemental variable levies are considered to pose a greater barrier to U.S. egg exports than do nontariff measures.

URA EFFECTS

The tariff and nontariff commitments made by the United States and other major egg markets under the URA likely will have a negligible impact in the U.S. egg market.[107] U.S. producers enjoy relatively low production costs and advantages in transportation and distribution in the domestic market, and current SPS restrictions will remain in place. U.S. egg exports likely will experience a small rise owing to global duty reductions and improvements in market access. However, the reduction of export incentives, both in the United States and the EU, lends uncertainty to the overall impact of the URA on U.S. egg exports.

U.S. MARKET

The U.S. egg market is one of the largest in the world. The U.S. market accounted for about 9 percent of world table egg consumption in 1993, trailing only China and the EU (table A-15; figure 10). On a per capita basis, table egg consumption totaled about 179 eggs in 1993 (table A-16). The U.S. egg market is complex and dynamic, and it comprises many product forms and consumption patterns, which are discussed in the following sections.

Consumption

U.S. egg consumption during 1989-93 (tables A-17 through A-20; figure 11) is shown in the following tabulation (in millions of dozen, estimated based on data from the U.S. Department of Agriculture):

[103] Imports in this category generally are limited to eggs for further processing.

[104] Shell-egg equivalent basis. USDA, FAS, *Canada 1993 Annual Poultry Report*, Report No. CA4035, U.S. Embassy, Ottawa, June 1, 1994, p. 17.

[105] USDA, FAS, *Mexico 1993 Annual Poultry Report*, Report No. MX4045, U.S. Embassy, Mexico City, July 18, 1994, p. 24.

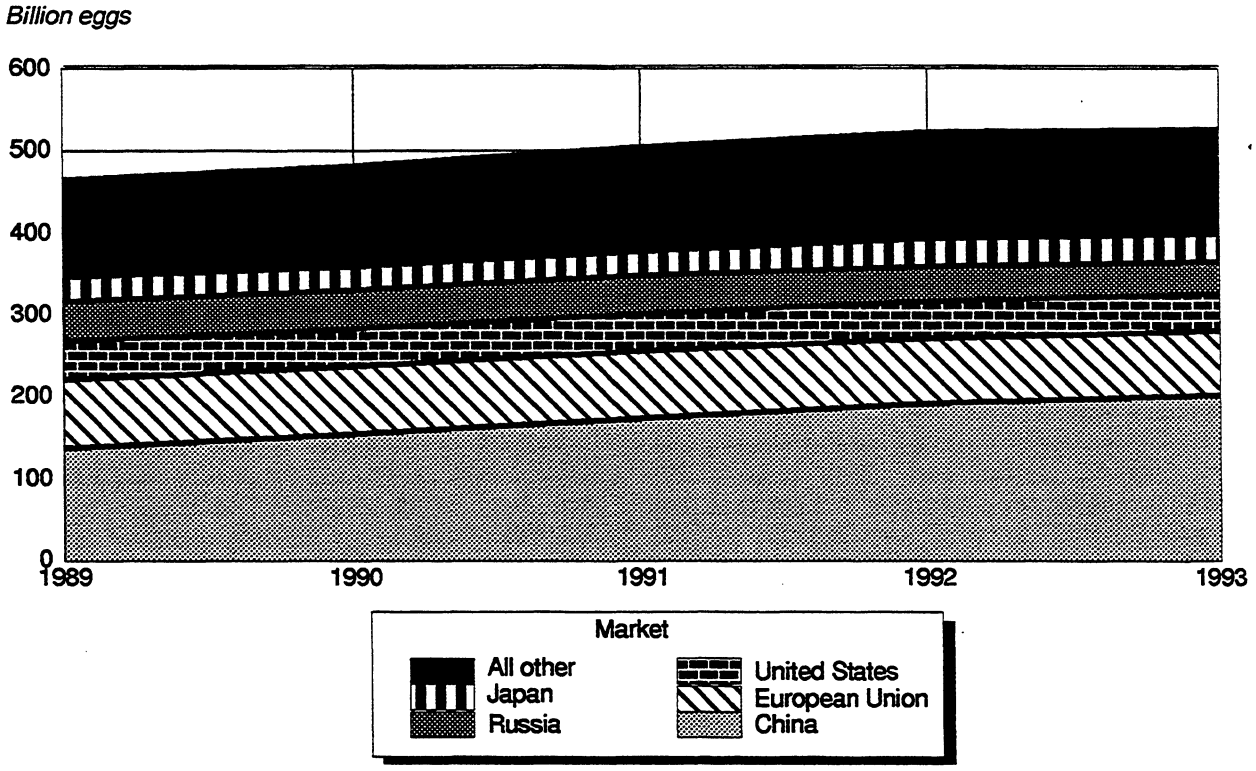
[106] EC Commission, *Completing the Single Market, White Paper to the European Council*, June 1985.

[107] See discussion in USITC, *Potential Impact on the U.S. Economy and Industries of the GATT Uruguay Round Agreements*, Vol. I, investigation No. 332-353, USITC publication 2790, June 1994, pp. II-13-II-15.

Year	Hatching eggs	Table eggs	Egg products[1]	Total
1989	697	4,007	882	5,586
1990	725	3,918	967	5,610
1991	814	3,875	1,011	5,700
1992	762	3,866	1,092	5,720
1993	824	3,852	1,152	5,828

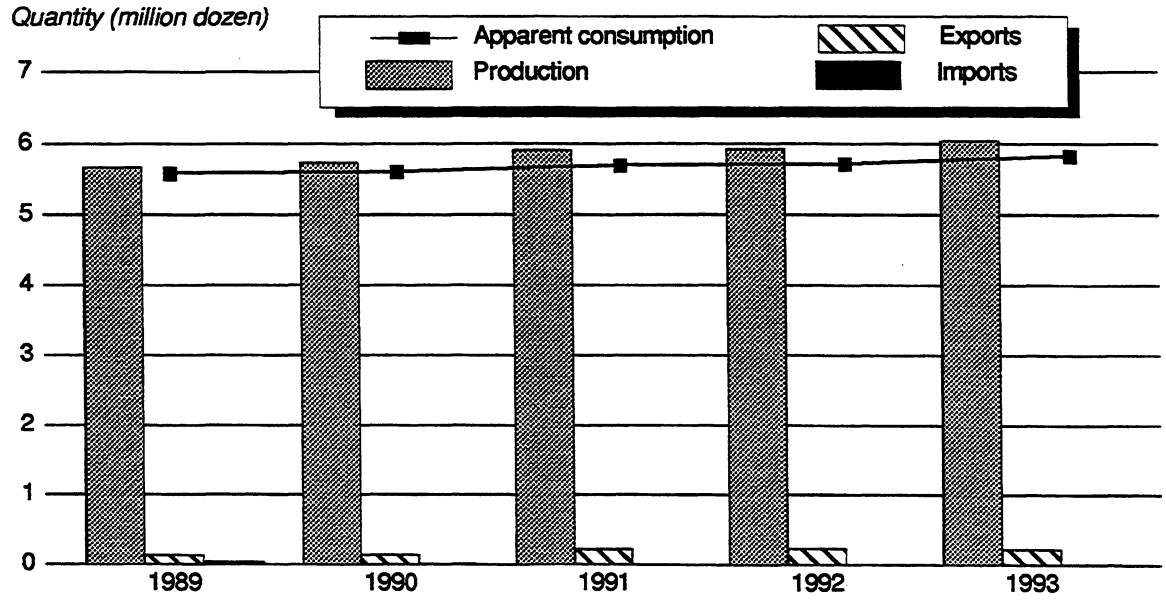
[1] Shell egg equivalent.

Figure 10
Eggs: World consumption, by principal markets, 1989-93



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

Figure 11
Eggs: U.S. production, exports, imports, and apparent consumption, 1989-93



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

During 1989-93, U.S. consumption of table eggs declined 4 percent, continuing a long-term trend. Hatching egg consumption rose 18 percent during the period, mainly reflecting a continuing rise in the demand for poultry meat (which originates in hatching eggs). Likewise, U.S. consumption of egg products rose 31 percent during 1989-93, as expanding processed and convenience food markets absorbed greater amounts of shell egg production.

U.S. per capita consumption of all eggs decreased modestly during 1989-93 (table A-21; figure 12). However, this trend differed by product form. Per capita consumption of shell eggs declined 7 percent during 1989-93, extending a long term pattern—per capita consumption dropped 36 percent since 1970. This decline was mitigated by a 25-percent increase in per capita consumption of egg products during the period (up 68 percent since 1970) (table A-21; figure 12). A continuing consumer concern regarding cholesterol and changing consumption patterns favoring convenience foods has adversely affected the consumption of table eggs, while increased use of egg products in processed food items has increased the demand for such products.

In concert with declining per capita consumption of shell eggs, a shift in at-home egg consumption from a main dish to ingredients has occurred in recent years. A recent consumer survey showed that in 1981, 53 percent of sampled home egg consumption was as an ingredient; this share rose to 57 percent in 1991.[108] However, the breakfast meal dominates U.S. home egg consumption. The survey respondents reported that, in 1991, 17 percent of home breakfast meals included eggs, compared to 10 percent for supper and 6 percent for lunch.[109] These shares were all lower than those in 1981, reflecting the declining trend in per capita shell egg consumption.

Imports typically supply a small share of U.S. egg consumption, except for hatching eggs. During 1989-93, imports of shell eggs (except for hatching) and egg products accounted for 1 percent or less of domestic consumption annually (tables A-17, A-19, and A-20). Imports of hatching eggs accounted for 1 percent of the quantity and between 2 and 3 percent of the value of annual consumption during the period (table A-18).

The primary competitive factors in the U.S. egg market include price, quality, transportation, and government health and sanitary restrictions.[110] These factors favor U.S. producers, which are among the most cost-efficient in the world. Hatching egg imports account for a relatively larger share of consumption, owing to the multinational nature of producers and the high-value, technologically specialized nature of the product.

Production

Total U.S. egg production increased from 5.7 billion dozen in 1989 to 6.0 billion dozen in 1993, or by 6 percent (table A-22; figure 13). Hatching egg production rose 18 percent during the period and accounted for 14 percent of total egg production in 1993. Increasing demand for poultry meat accounted for the bulk of this rise. Table egg production (including breaking eggs), which accounted for about two-thirds of the total, declined 2 percent during 1989-93, owing mainly to declining demand (table A-22). Egg products production rose by about one-third during 1989-93 and accounted for 21 percent of the total the latter year. Increasing demand for egg products by the food-processing and food service industries led to this rise.

Imports

Foreign egg producers generally cannot compete with the relatively low-cost U.S. industry in the domestic market. In addition, health and sanitary restrictions limit foreign sources and product forms of U.S. egg imports. Furthermore, the perishable nature and commodity status of fresh shell eggs discourage long-range shipping from areas whose egg producers enjoy certain cost advantages (mainly labor) over U.S. producers. As a result, imports typically account for less than one-half percent of the U.S. market for eggs annually and consist mainly of hatching eggs and specialty egg items.

Total U.S. egg imports increased irregularly in value from $28 million in 1989 to $35 million in 1993, or by one quarter (table A-23; figure 14). However, the quantity declined irregularly from 37 million dozen in 1989 to 11 million dozen in 1993 (table A-17).[111] Principal single country sources were Canada (38 percent of the value in 1993), Namibia (15 percent), the United Kingdom (14 percent), Israel (13 percent), and China (7 percent) (figure 14).

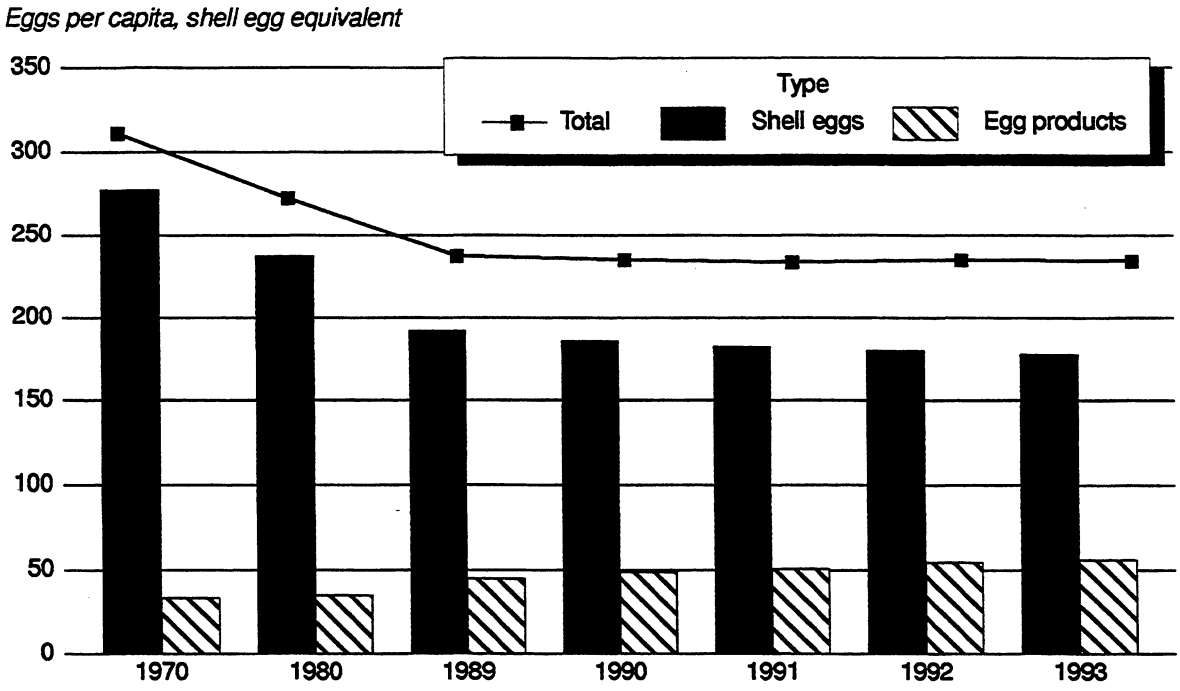
[108] Virginia Lazar, "At-home egg consumption remains steady," *Egg Industry*, May/June 1993, pp. 20-23, based on a National Eating Trends survey by the NPD Group.

[109] Ibid.

[110] Health and sanitary restrictions effectively limit the source of U.S. imports to foreign producers with relatively high cost structures. See footnotes 87 and 89.

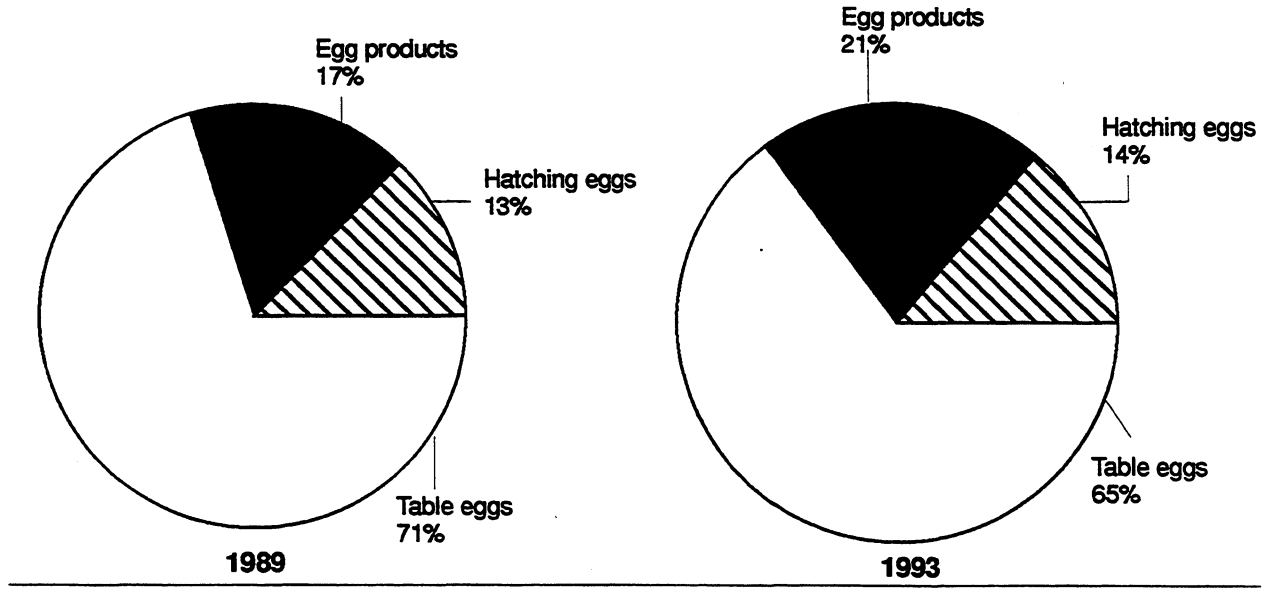
[111] This divergence in trends is explained by a substantial increase in the unit value of relatively high-value hatching eggs, particularly of ratites.

Figure 12
Eggs: U.S. annual per capita consumption, by types, 1970, 1980, and 1989-93



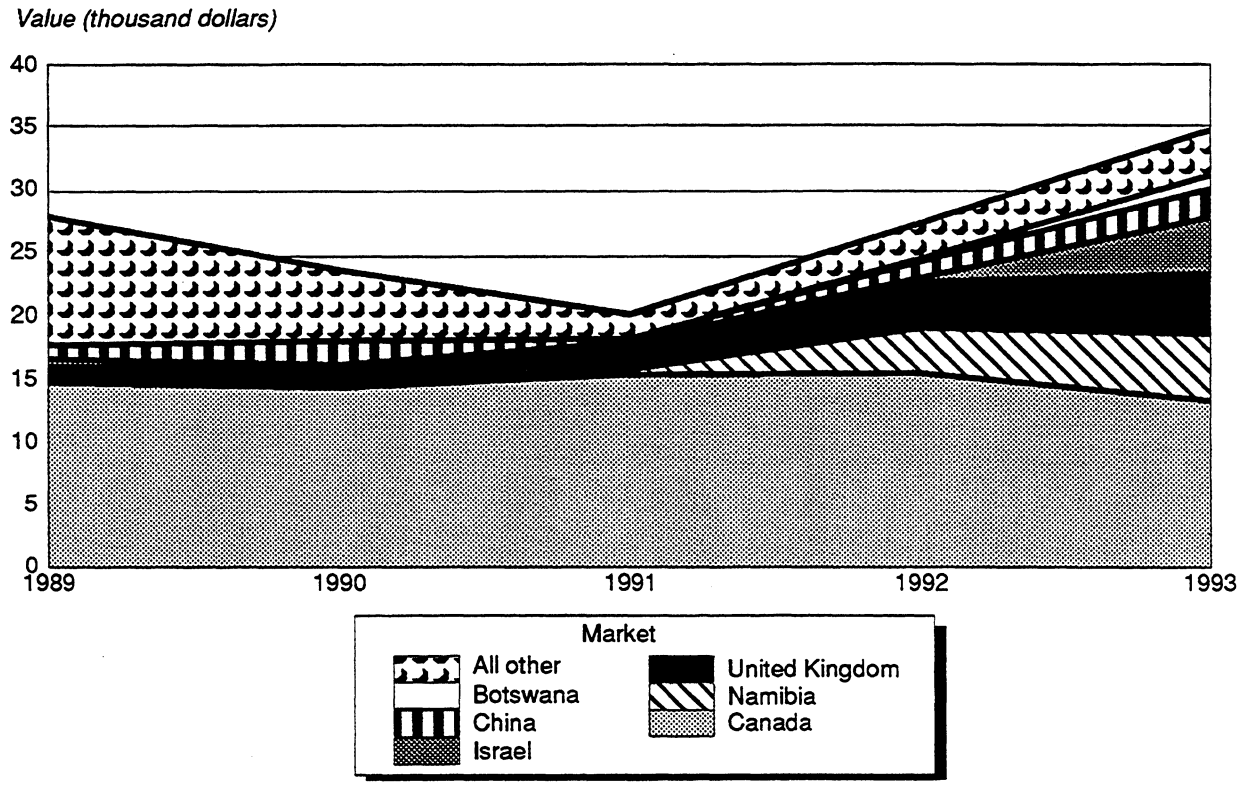
Source: Compiled from official statistics of the U.S. Department of Agriculture.

Figure 13
Eggs: U.S. production, by types, 1989 and 1993



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

Figure 14
Eggs: U.S. imports for consumption, by principal sources, 1989-93



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

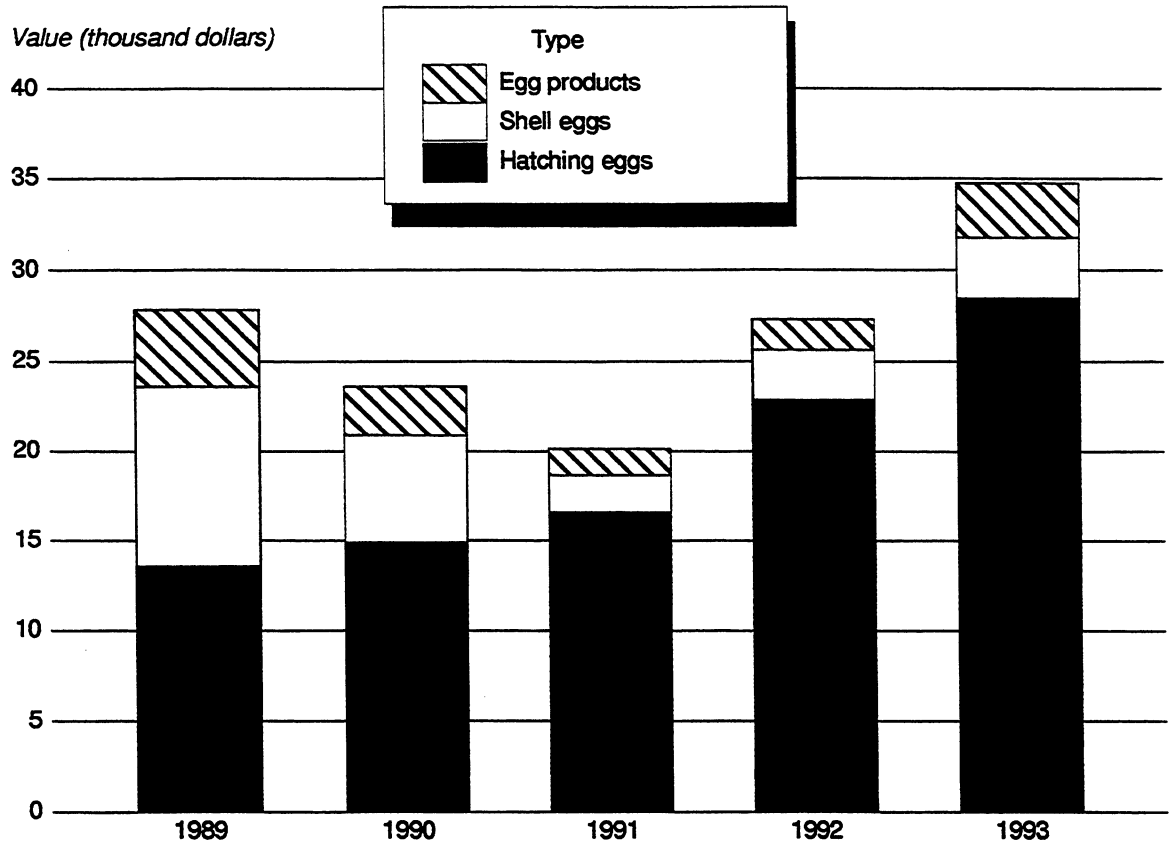
U.S. egg imports are composed mainly of hatching eggs, which accounted for 82 percent of the total value in 1993 (figure 15). U.S. imports of hatching eggs were relatively stable in terms of quantity at about 2 million dozen annually during 1989-93 (table A-24). The value, however, rose 110 percent during the period and reached $29 million in 1993, mainly the result of increased imports of high-valued ostrich and emu eggs. The average annual unit value of U.S. hatching egg imports nearly doubled during 1989-93 to $13.01 per dozen the latter year (table A-24). Principal sources include Canada (mainly chicken and turkey breeder stock eggs), Namibia (mainly ostrich and emu breeder stock eggs), the United Kingdom (mainly chicken and turkey breeder stock eggs), and Israel (mainly chicken and turkey breeder stock eggs).

U.S. imports of shell eggs, other than for hatching, accounted for about 9 percent of total egg imports in 1993. Such imports decreased from 24 million dozen, valued at $10 million, in 1989 to 2 million dozen, valued at $3 million, in 1993 (table A-25). The decline reflected a return to more typical import levels following abnormally high imports in 1989 because of temporary supply shortages following an outbreak of avian influenza.[112] Principal sources included China (60 percent of the total value in 1993) and Taiwan (24 percent). The great bulk of such imports are of specialty egg products, such as preserved duck eggs; most of the remainder consists of breaking eggs for the egg products industry.

U.S. imports of egg products accounted for about 9 percent of total egg imports in 1993. Such imports trended downward during 1989-91 before recovering to about 2,000 metric tons, valued at $3 million, in 1993 (table A-26). By far the principal supplier is Canada, which accounted for 73 percent of the total in 1993. Most imports from Canada are of such typical egg products as liquid, frozen, and dried egg yolks and egg albumen. Most of the remainder is composed of specialty egg items, such as canned boiled quail eggs, from Asian and European sources.

[112] The shortages were suffered principally in the breaking egg sector.

Figure 15
Eggs: U.S. imports for consumption, by types, 1989-93



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

Pronounced shifts occurred in the market share of U.S. egg imports during 1989-93, both in terms of suppliers and product types. Overall, imports became more concentrated among the leading suppliers during 1989-93 (table A-23). The share provided by Canada, by far the primary supplier, rose markedly during 1989-91 before falling substantially in 1992 and 1993. The decline in Canada's share was captured mainly by Namibia and Israel. The share of total imports held by hatching eggs rose substantially during 1989-93, particularly between 1990 and 1991 (tables A-23 and A-24). This gain was mirrored by a decline in the share held by shell eggs.

U.S. importers of eggs vary depending on the type of product. Hatching egg importers generally are U.S. subsidiaries of multinational poultry-breeding companies. These companies are based primarily in Canada and Europe, which are the sources of U.S. imports. U.S. importers of shell eggs generally consist of egg packers and processors along the Canadian border. These importers form a regional market with Canadian suppliers and mainly import during temporary periods of supply imbalances. U.S. importers of egg products generally are firms that import egg products for pharmaceutical and other specialized uses.

FOREIGN MARKETS

Foreign Market Profile

The world egg market experienced substantial gains in recent years. A combination of technological advances that have lowered production costs (and prices), the transfer of technology from advanced producing areas to developing ones, rising global incomes both in developed and developing nations, changes in marketing channels, and changes in consumer preferences, has led to an increase in world demand for eggs. An increasing share of this market has shifted to further-processed egg products.[113]

World egg consumption increased by 13 percent from 465 billion in 1989 to 526 billion in 1993 (table

[113] See, for example, "Top Production Companies in POULTRY INTERNATIONAL's Area," *POULTRY INTERNATIONAL*, Jan. 1995., p. 12.

A-15; figure 10). The leading consumer on an absolute basis, China, accounted for 38 percent of the world total in 1993.[114] Following China that year were the EU (15 percent), the Former Soviet Union (10 percent), the United States (9 percent), and Japan (7 percent). The trend in consumption among these leading markets was mixed during 1989-93, with gains experienced in China and Japan and declines in the EU, the United States, and the Former Soviet Union.

World egg imports ranged between 15.1 billion eggs in 1989 to 16.0 billion eggs in 1991 (table A-27; figure 16).[115] Principal global importers include the EU (72 percent of global imports in 1993), Hong Kong (11 percent), and Japan (5 percent). On a global basis, imports accounted for about 3 percent of egg consumption in 1993 (tables A-15 and A-27).

China

China, by far, is the world's largest egg market and is also among the fastest growing. The size of the Chinese egg market has been determined by population growth as well as increasing consumer demand. Chinese egg consumption grew 47 percent during 1989-93 and reached 202 billion the latter year (table A-15). Per capita egg consumption totaled 170 in 1993, up 35 percent from the level in 1989 (table A-16; figure 17). Per capita consumption in urban households outpaces that in rural ones, as shown in the following tabulation (data from USDA, FAS, *China 1992 Annual Poultry Report*, Report No. CH3038, U.S. Embassy, Beijing, June 30, 1993, p. 25, in kilograms per capita):

Market	1987	1988	1989	1990	1991
Urban	6.56	6.87	7.05	7.25	8.26
Rural	2.25	2.28	2.41	2.41	2.73

Domestic consumption of fresh shell eggs accounts for about 90 percent of total Chinese egg production, followed by domestic consumption of preserved eggs (5 percent), egg exports (less than 1 percent), and use by domestic food processors (the remainder).[116]

China is a relatively minor global importer of eggs; such imports totaled about 60 million eggs in 1993 (table A-27). Imports account for a very small share of consumption and consist mainly of shell eggs from Russia, likely the result of barter arrangements.[117] China lowered tariffs on imports of all eggs by 5 percentage points effective January 1, 1993.

European Union[118]

The EU is the second-leading world market for eggs. In 1993, the EU accounted for 15 percent of total world egg consumption (table A-15; figure 10). The EU egg market is two-tiered. The first tier comprises the larger, more populous members that are the principal EU egg markets, namely Germany, France, Italy, the United Kingdom, and Spain. These members together accounted for 84 percent of total EU egg consumption in 1993. The second tier of the EU egg market consists of smaller, less populous countries that account for relatively minor shares of egg consumption.

The EU egg market has declined in recent years, owing mainly to the same factors that affected the U.S. market. Egg consumption in the EU dropped 4 percent during 1989-93, with consumption flat or declining in most member states. Per capita egg consumption in the EU during 1993 ranged from a high of 268 in France to a low of 172 in Portugal (table A-16). The EU egg market was supplied mainly by domestic production and intra-EU trade, as import barriers are restrictive and production has been more than sufficient to meet internal demand. U.S. exports generally are not competitive in the EU egg market for these reasons. Excluding intra-EU trade, imports accounted for less than 2 percent of EU egg consumption in 1993 (tables A-15 and A-27).

Former Soviet Union

The Former Soviet Union was the world's third-largest market for eggs during 1989-93; Russia alone was the world's fourth-leading market. Russian egg consumption declined in recent years because of economic difficulties that have adversely affected both the supply of and demand for eggs. Russian egg consumption fell from 49 billion in 1989 to 39 billion in 1993, or by 21 percent (table A-15; figure 10). Per capita consumption in Russia fell even more, from 257 eggs in 1989 to 131 in 1993, or by 49 percent (table A-16; figure 17).

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[114] Table egg consumption.

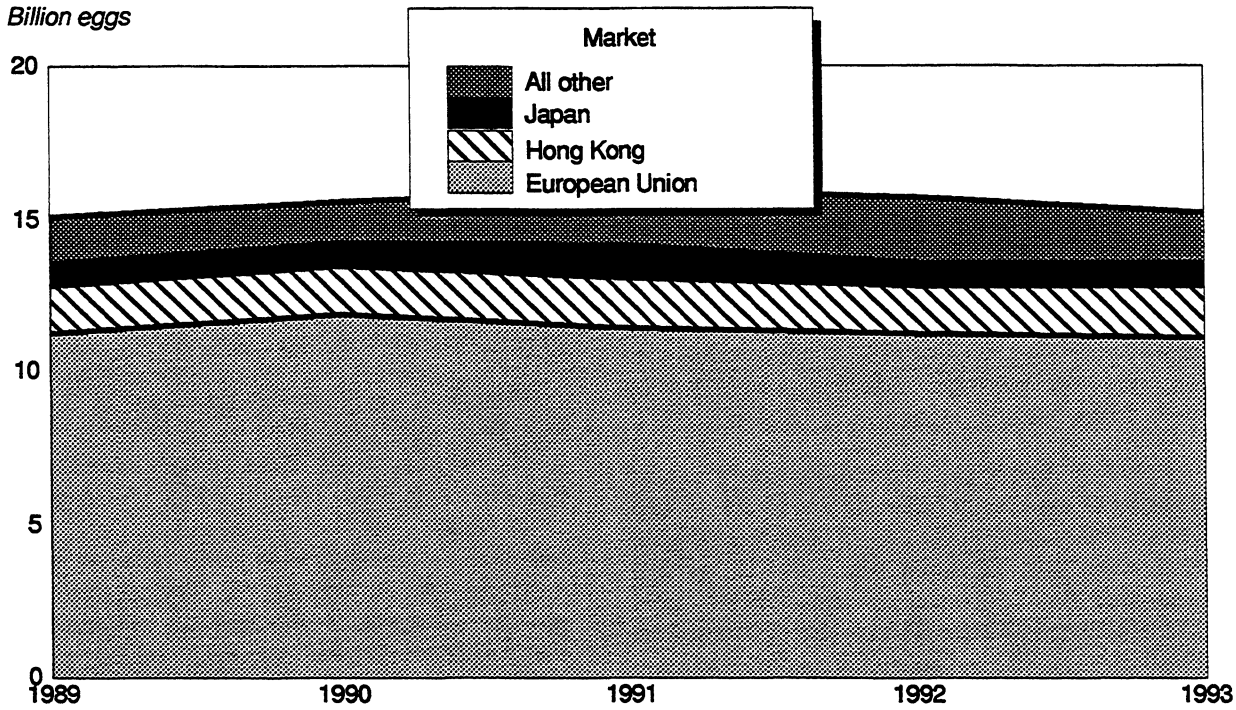
[115] Including intra-EU trade. Excluding such trade, imports ranged between 4.1 and 6.1 billion eggs annually during 1989-93.

[116] USDA, FAS, *China 1992 Annual Poultry Report*, Report No. CH3038, U.S. Embassy, Beijing, June 30, 1993, p. 25.

[117] USDA, FAS, *China 1993 Annual Poultry Report*, Report No. CH4024, U.S. Embassy, Beijing, June 17, 1994, p. 18.

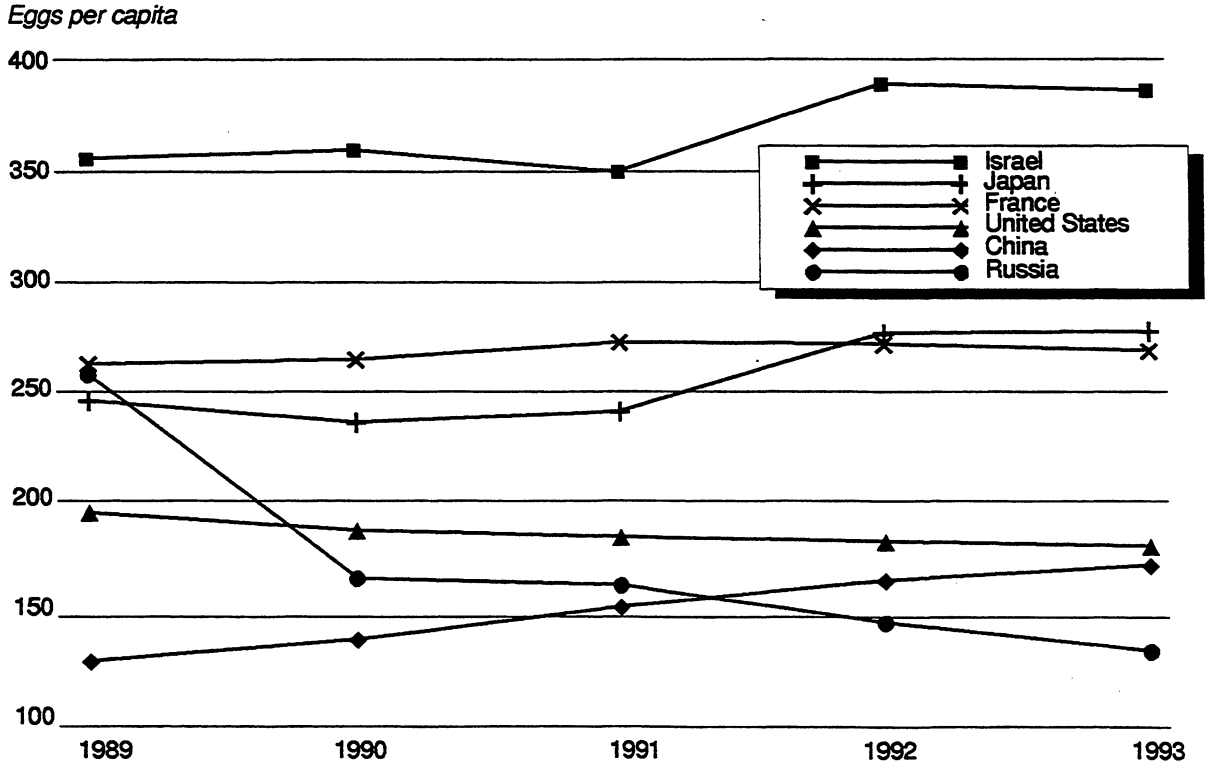
[118] During the period under review, the European Union comprised Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom.

Figure 16
Eggs: World imports, by principal markets, 1989-93



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

Figure 17
Eggs: Annual per capita consumption, by selected countries, 1989-93



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

Russia is a relatively minor global importer of eggs, totaling about 70 million eggs in 1993 (table A-27), and accounting for only a very small share of consumption. Imports fell substantially in the years following the dissolution of the Soviet Union. Most Russian imports traditionally were supplied by countries in the Former Soviet Union[119] and the Council for Mutual Economic Assistance (CMEA). In the past, most trade between the Former Soviet Union and the CMEA was conducted in "transferable rubles," an accounting system to value barter and countertrade; Former Soviet Union imports were generally paid for by raw material exports. However, the dissolution of the CMEA and the Soviet Union in 1991, which changed the pricing and financing of egg imports, and current regional economic difficulties have led to decreased Russian egg imports.

Ukraine traditionally has been the second major egg market of the Former Soviet Union. Economic and political developments related to those in Russia led to a decline in the Ukrainian egg market, as egg consumption fell 31 percent during 1989-93 (table A-15). The drop in consumption resulted mainly from production declines, as economic difficulties have affected the availability of breeder stock and feed.

Japan

Japan is the fifth-leading world egg market and an important one for U.S. exports of egg products. In 1993, Japan accounted for 7 percent of the world egg market (table A-15). After declining slightly during 1989-91, Japanese egg consumption increased 15 percent in 1992 and remained relatively flat in 1993 (table A-15; figure 10). Per capita egg consumption in Japan varied during the period and ranged from a high of 277 in 1993 to a low of 235 in 1990 (table A-16; figure 17). Japan is a relatively minor world egg importer, accounting for about 5 percent of global egg imports in 1993 (table A-27; figure 16). Japanese egg imports ranged between 751 million in 1989 and 1 billion in 1991 (table A-27). However, Japan is a major egg export market for the United States, mainly for egg products.

U.S. Exports

The U.S. egg industry historically has been oriented toward the domestic market. The relatively large size and affluence of the domestic market, the perishability of fresh shell eggs, and agricultural policies[120] in major global markets have tended to discourage exports. In recent years, however, slow consumption growth in the U.S. market combined with rising incomes in the Middle East and Asia, the increased availability of refrigerated transportation, and the availability of certain U.S. Government export assistance programs have contributed to an increase in U.S. egg exports, both in absolute terms and as a share of U.S. output.

The United States is the world's second-leading egg exporter, trailing the EU as a group and the Netherlands in terms of a single country (table A-9; figure 8). In 1993, the United States accounted for 11 percent of total world exports.[121]

Total U.S. egg exports increased from $88 million in 1989 to $133 million in 1993, or by 52 percent (table A-28; figure 18). Major markets include Canada (one-fourth of the total in 1993), Hong Kong (19 percent), Japan (18 percent), and Mexico (8 percent). U.S. egg exports generally increased to all major markets during 1989-93. The greatest growth occurred in exports to nontraditional markets such as the EU (principally hatching eggs and egg products) and Colombia (primarily hatching eggs). The greatest contraction occurred in exports to Iraq (mainly hatching eggs) and to certain Caribbean Basin Economic Recovery Act (CBERA) countries (principally hatching and table eggs).

The composition of U.S. egg exports is relatively evenly distributed among hatching eggs (35 percent of the total value in 1993), table eggs (35 percent), and egg products (30 percent) (tables A-28 through A-31). These shares shifted during 1989-93, as the share held by hatching eggs declined and the share held by other shell eggs increased. U.S. egg exports to Asian, CBERA, and Organization of Petroleum Exporting Countries (OPEC) markets are the most concentrated (Hong Kong—table eggs; Japan—egg products; CBERA—hatching eggs; OPEC—table eggs), while those to other major markets are more diverse (figure 19).

U.S. exports of hatching eggs during 1989-93 peaked at 32 million dozen, valued at $55 million, in 1991 (table A-29). Major single-country markets included Canada (39 percent of the value in 1993), Jamaica (10 percent), Spain (7 percent), Mexico (6 percent), and Colombia (6 percent). The principal regional markets included North America (Canada and Mexico—45 percent of the value in 1993), CBERA

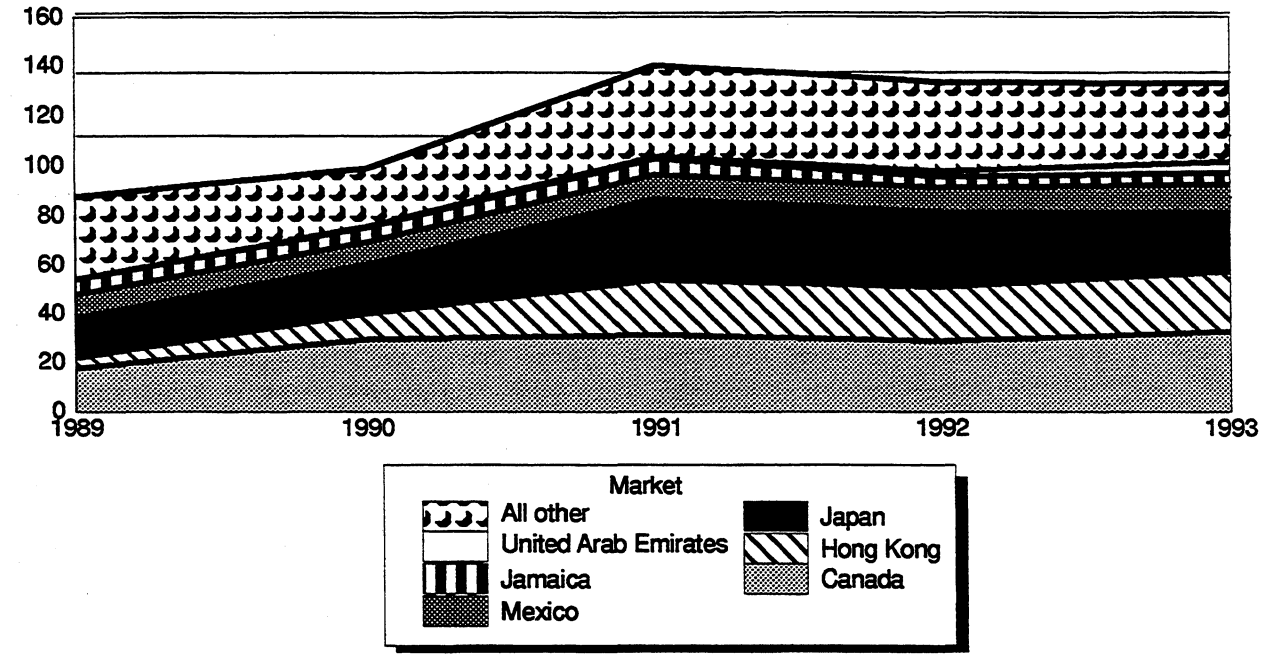
[119] USDA, ERS, *Agricultural Statistics of the Former USSR Republics and the Baltic States*, Statistical Bulletin Number 863, Sept. 1993, pp. 184-201.

[120] Such as relatively high import barriers and export incentives.

[121] Including intra-EU trade. Excluding such trade, the U.S. share totaled 28 percent in 1993 and remained behind that of the EU.

Figure 18
Eggs: U.S. exports of domestic merchandise, by principal markets, 1989-93

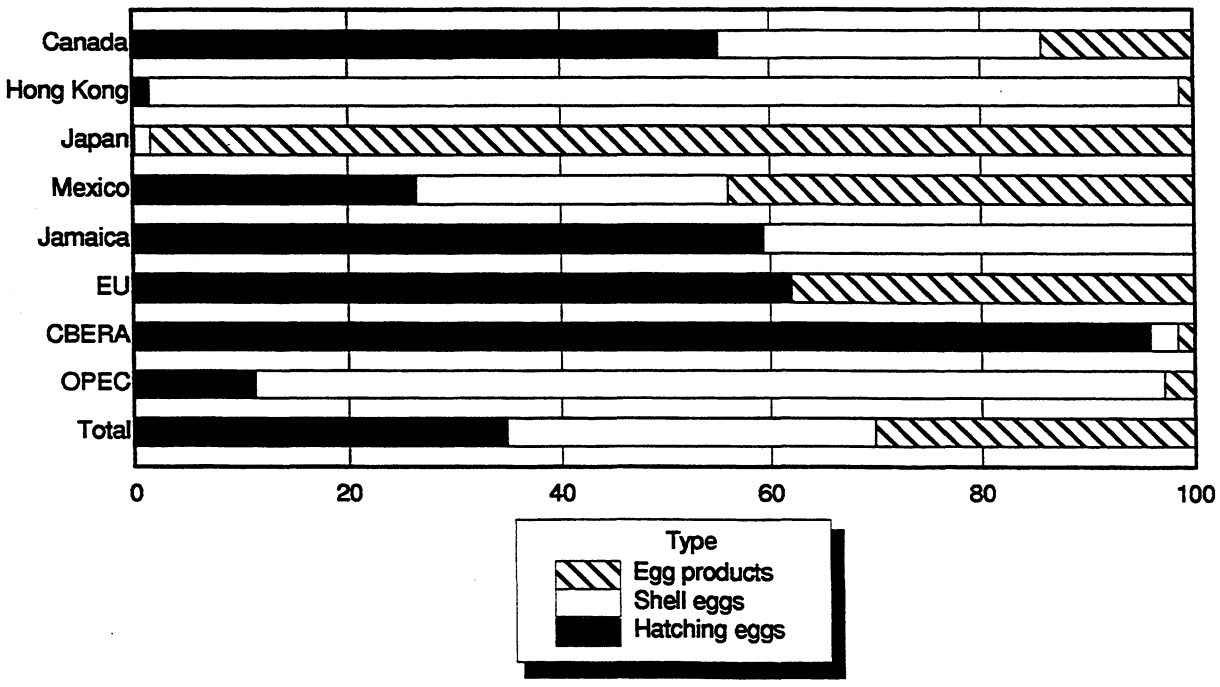
Value (thousand dollars)



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

Figure 19
Eggs: Composition of U.S. exports to major markets, 1993

Share of total (percent)



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

countries (24 percent), and the EU (15 percent). Most exports of hatching eggs to North America and CBERA markets are for growing stock for egg laying and poultry meat purposes. Most exports to the EU are of higher value breeder stock.

U.S. exports of table eggs[122] rose annually during 1989-93, reaching 74 million dozen, valued at $47 million, the latter year (table A-30). Primary table egg single-markets included Hong Kong (52 percent of the value in 1993), Canada (21 percent), United Arab Emirates (9 percent), and Mexico (7 percent). Major regional markets included Asia (53 percent), North America (28 percent), and OPEC countries (13 percent).

U.S. exports of egg products during the period under review peaked at about 23,000 metric tons, valued at $49 million, in 1992 (table A-31). The principal single country markets were Japan (59 percent of the total value in 1993), Mexico (12 percent), Canada (12 percent), and Germany (6 percent). Major regional markets included Asia (63 percent), North America (24 percent), and the EU (11 percent). The primary products included liquid and frozen yolks (35 percent), dried yolks (22 percent), dried whole eggs (17 percent), dried albumen (17 percent), other albumen (8 percent), and other whole eggs (3 percent).

The major shifts in U.S. egg exports in terms of markets during 1989-93 involved a significant increase in the share exported to markets benefitting from the EEP, primarily Hong Kong, and a slight decline in the export share to traditional markets such as Canada and Japan. However, the share exported to leading markets together (Canada, Hong Kong, Japan, and Mexico) increased during the period. In terms of products, there was a shift in the share of exports held by shell eggs, mainly at the expense of the share held by hatching eggs. Increased exports of table eggs under the EEP contributed to these shifts.

U.S. exporters of eggs and egg products generally are primary producers. Hatching egg exporters include multinational poultry breeding firms shipping product to overseas affiliates to improve the breeder stock (principally grandparent) or to emerging poultry meat and egg operations for parent breeder stock, growout, or laying stock. Shell egg exporters include major producer-packers, which often consolidate export orders through the U.S. Poultry and Egg Export Council. Egg products exporters include major U.S. producers, which ship primarily to food processors in major global markets (Japan, EU, and Mexico).

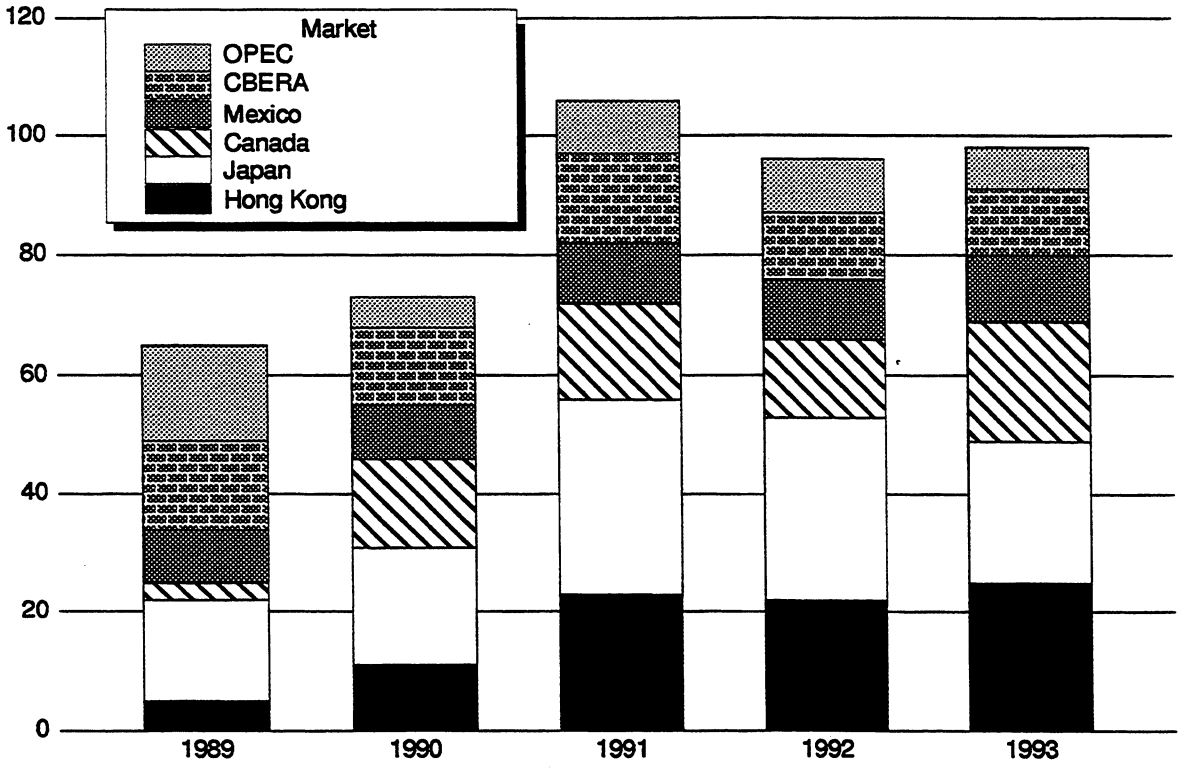
U.S. TRADE BALANCE

The U.S. trade balance for eggs was positive and rose from a surplus of $60 million in 1989 to $120 million in 1991 before falling to $98 million in 1993 (table A-32). The balance improved during the period with respect to most major markets (figure 20). The largest surpluses were with the top three markets of Canada, Hong Kong, and Japan; CBERA countries provided the largest surplus in terms of major country groups. The positive balance resulted from increases in exports of shell eggs to Hong Kong and Mexico and of egg products to Japan that outpaced rising hatching egg imports. Also, movements in the exchange rates between the U.S. dollar and the currencies of major markets, particularly Japan, contributed to the trend in the U.S. trade balance in eggs during 1989-93.

[122] This category includes other shell eggs, such as preserved duck eggs. However, exports of such items are believed to be negligible.

Figure 20
Eggs: U.S. trade balance, by principal markets, 1989-93

Value (million dollars)



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

APPENDIX A
STATISTICAL TABLES

Table A-1
Eggs: World production, by selected country groups and countries, 1989-93
(Million eggs)

Country group and country	1989	1990	1991	1992	1993
North America:					
Canada	5,719	5,661	5,666	5,614	5,670
Mexico	17,950	18,040	19,840	19,650	20,140
United States	67,178	67,987	69,352	70,592	71,476
Total	90,847	91,688	94,858	95,856	97,286
South America:					
Argentina	3,350	3,900	4,550	3,900	3,400
Brazil	12,174	13,454	13,655	14,190	12,700
Venezuela	2,600	1,146	1,928	2,353	2,252
Total	18,124	18,500	20,133	20,443	18,352
EU:					
Belgium-Luxembourg	2,724	2,941	3,134	3,196	3,203
Denmark	1,410	1,409	1,435	1,440	1,300
France	15,050	14,629	15,300	15,375	15,400
Germany	17,794	16,800	15,525	15,165	14,700
Greece	2,507	2,566	2,514	2,495	2,540
Ireland	640	640	640	640	640
Italy	11,223	11,454	11,568	11,454	11,470
Netherlands	10,660	10,801	10,762	10,458	10,000
Portugal	1,520	1,590	1,671	1,814	1,840
Spain	10,140	10,659	10,184	8,675	8,985
United Kingdom	10,547	10,658	11,006	10,699	10,680
Total	84,215	84,147	83,739	81,411	80,758
Other Western Europe:					
Austria	1,695	1,664	1,691	1,690	1,700
Finland	1,288	1,232	1,077	1,087	1,120
Total	2,983	2,896	2,768	2,777	2,820
Eastern Europe:					
Hungary	4,250	4,300	4,100	4,000	3,900
Poland	8,200	7,649	6,500	6,300	6,200
Romania	7,600	7,100	6,900	6,700	5,450
Total	20,050	19,049	17,500	17,000	15,550
Former Soviet Union:					
Armenia	561	518	485	244	357
Azerbaijan	1,056	985	958	780	857
Belarus	3,651	3,657	3,718	3,417	3,300
Estonia	600	547	560	430	446
Georgia	861	769	619	569	535
Kazakhstan	4,253	4,204	4,075	3,542	3,304
Kyrgyzstan	704	714	650	593	536
Latvia	890	819	761	609	330
Lithuania	1,331	1,273	1,235	951	982
Moldova	1,154	1,129	1,061	801	804
Russia	49,024	47,470	47,132	42,552	38,000
Tajikistan	619	592	455	316	286
Turkmenistan	328	327	300	310	259
Ukraine	17,393	16,287	15,188	13,445	12,000
Uzbekistan	2,429	2,453	2,347	1,525	1,571
Total	84,854	81,744	79,544	70,084	63,566
Middle East:					
Israel	1,898	1,843	1,797	1,901	1,952
Saudi Arabia	2,800	2,900	2,863	2,850	2,915
Turkey	7,200	7,500	7,300	7,800	8,100
Total	11,898	12,243	11,960	12,551	12,967
Africa (Egypt)	3,000	3,200	3,000	3,000	3,050
Asia:					
China	140,900	158,920	185,000	203,980	215,000
Hong Kong	34	34	33	21	18
India	19,600	23,320	24,675	26,075	27,570
Japan	40,356	40,318	41,638	42,911	43,120
South Korea	6,919	7,145	7,770	7,750	8,200
Taiwan	4,450	4,500	4,806	5,146	5,450
Total	212,259	234,237	263,922	285,883	299,358
Oceania (Australia)	3,286	3,468	3,540	3,710	3,784
Total, world	531,516	551,172	580,964	592,715	597,491

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

Table A-2
Eggs: Number of plants, by types, as of May 1989-93

Type	1989	1990	1991	1992	1993
Shell egg packing plants:					
Federally inspected	180	163	160	165	167
Total	1,514	1,272	1,154	1,072	977
Egg products plants	91	84	81	81	84
Shell egg packing and egg products plants	11	9	8	7	3
Hatcheries	505	485	474	465	453
Total[1]	2,099	1,832	1,701	1,611	1,511

[1] Exclusive of double counting.

Source: USDA, AMS, Poultry Division, *List of Plants Operating Under USDA Poultry and Egg Grading and Egg Products Inspection Programs*, various years; unpublished data from the AMS.

Table A-3
Eggs: Industry concentration, by sectors, 1989-93

(Share of production, in percent)

Sector	1989	1990	1991	1992	1993
Shell egg producers:					
Top 4 firms	14	15	17	17	21
Top 8 firms	20	22	24	24	31
Top 20 firms	32	34	37	37	48
Egg breakers:					
Top 4 firms	(1)	(1)	55	56	56
Top 8 firms	(1)	(1)	70	68	70
Top 20 firms	(1)	(1)	92	87	90
Further processors:					
Top 4 firms	(1)	(1)	(1)	60	59
Top 8 firms	(1)	(1)	(1)	72	73
Top 20 firms	(1)	(1)	(1)	93	95

[1] Not available.

Source: Estimated by the staff of the U.S. International Trade Commission based on data from *Egg Industry*, various issues, and the USDA.

Table A-4
Eggs: Geographic industry distribution, by sectors and States, 1989-93

Sector and State	1989	1990	1991	1992	1993
	Share of total U.S. production (percent)				
Shell eggs:					
Table eggs:					
California[1]	12.5	12.7	12.7	11.5	10.6
Pennsylvania	8.6	8.1	8.4	8.8	8.9
Indiana	9.2	9.0	8.8	8.4	8.4
Ohio[1]	7.4	7.9	7.9	8.3	8.3
Iowa	3.6	3.6	3.7	4.7	[1]5.4
Texas	4.9	4.8	4.9	4.9	5.0
Georgia	4.9	4.9	4.8	4.5	4.6
Minnesota	3.7	4.1	4.4	4.5	4.2
Florida	4.1	4.0	4.0	3.6	3.8
Nebraska[1]	1.8	2.0	2.4	2.9	3.3
All other	39.3	38.7	37.9	38.0	37.4
Total, table eggs	100.0	100.0	100.0	100.0	100.0
Hatching eggs:					
Arkansas	17.5	18.4	17.8	18.0	18.7
Georgia	15.3	15.5	15.6	16.0	15.8
North Carolina	15.3	13.7	13.1	13.1	13.5
Alabama	12.1	13.1	13.2	13.3	13.0
Mississippi	6.0	6.1	6.6	6.3	6.4
Texas	4.8	5.3	4.9	5.0	5.0
All other	29.0	27.9	28.7	28.3	27.5
Total, hatching eggs	100.0	100.0	100.0	100.0	100.0
	Number of plants				
Egg products:					
California	14	14	14	14	11
Minnesota	8	8	8	8	8
Iowa	10	9	8	7	7
Nebraska	6	6	5	6	7
Wisconsin	7	5	6	6	5
New Jersey	6	4	5	5	5
Indiana	4	4	3	5	5
All other	47	43	40	37	39
Total, egg products	102	93	89	88	87

[1] Includes hatching eggs to avoid disclosing individual operations; the number of such eggs is believed to be low.

Source: Calculated based on statistics of the USDA, NASS, *Layers and Egg Production*, various annual summaries.

Table A-5
Table eggs: Estimated costs and returns, 1989-93

(Cents per dozen)

Year	Production costs		Wholesale		
	Feed	Total	Total costs	Price	Net returns
1989	31.2	49.4	69.9	85.1	15.2
1990	28.6	46.8	67.3	83.9	16.6
1991	28.4	46.6	67.1	79.6	12.5
1992	27.8	46.0	66.5	68.5	1.9
1993	27.4	45.6	66.1	75.1	9.0

Source: USDA, ERS, *Livestock and Poultry Situation and Outlook Report*, various issues.

Table A-6
Eggs: Prices, by products and market levels, 1989-93

Product and market level	1989	1990	1991	1992	1993
	(Cents per dozen)				
Shell eggs:					
Hatching eggs	120	123	126	125	131
Table eggs:					
Farm	62.53	62.00	56.65	45.09	61.93
Wholesale (NY, grade A large)	81.91	82.19	77.52	65.41	72.53
Retail (LA, grade AA):					
Extra large	180	198	200	198	190
Large	161	177	180	176	164
Medium	147	163	165	163	151
Breaking eggs:					
Heavy nest run (Central, truckIot)	53.56	53.72	46.82	37.04	44.82
Checks and undergrades (Central, less than truckIot)	44.17	41.74	33.46	23.60	31.39
	(Cents per pound)				
Egg products:					
Liquid (f.o.b., tank truckIots, Central):					
Whole	44.88	44.16	38.96	33.54	39.94
Whites	50.48	41.69	30.03	29.58	36.53
Yolks	47.40	63.44	63.29	43.87	47.45
Frozen (Eastern, 30 lb. containers, truckIots):					
Whole	55.88	59.58	54.58	44.98	50.26
Whites	57.10	50.35	39.79	37.91	44.34
Yolks (sugared)	57.48	69.78	72.51	52.85	57.41
Dried:					
Whole (NY, Philadelphia)	201	207	186	164	183
Whites (spray)	453	391	297	289	366
Yolks	125	161	177	136	133

Source: USDA, ERS, *U.S. Egg and Poultry Statistical Series, 1960-92*, Jan. 1994; USDA, AMS, *Poultry Market Statistics*, various annual issues; unpublished data from the USDA, AMS and NASS.

Table A-7
Eggs: Distribution of layers, by areas and types, 1991

Area	Number	Share of world total	Share of country total
	Million	*Percent*	
Brown layers:			
China	500	42	70
North America	30	3	10
Western Europe	220	19	75
CIS	70	6	30
Asia[1]	100	8	35
Central Europe	110	9	65
South America	60	5	40
Africa	70	6	65
Middle East	20	2	25
World	1,180	100	49
White layers:			
China	200	16	30
North America	270	22	90
Western Europe	80	7	25
CIS	230	19	70
Asia[1]	170	14	65
Central Europe	60	5	35
South America	100	8	60
Africa	40	3	35
Middle East	70	6	75
World	1,220	100	51
All layers:			
China	700	29	-
North America	300	12	-
Western Europe	300	12	-
CIS	300	12	-
Asia[1]	270	12	-
Central Europe	170	7	-
South America	160	7	-
Africa	110	5	-
Middle East	90	4	-
World	2,400	100	-

[1] Excluding China.

Note.—Shares are presented as given by the author.

Source: Theo Peters, "Development in the Brown Egg Market," *Poultry International,* Oct. 1993, p. 62.

Table A-8
Eggs: Western European brown layers, 1970 and 1992

(Percent)

Country	1970	1992
France	98	98
Germany	15	50
United Kingdom	25	100
Spain	30	65
Portugal	25	100
Italy	20	100
Netherlands	25	55
Belgium	20	80
Turkey	25	80
Greece	20	80
Ireland	20	100
Others	25	50
Total	25	77

Source: Theo Peters, "Developments in the Brown Egg Market," *Poultry International,* Oct. 1993, p. 62.

Table A-9
Eggs: World exports, by selected country groups and countries, 1989-93

(Million eggs)

Country group and country	1989	1990	1991	1992	1993
North America:					
Canada	261	274	267	378	408
United States	1,099	1,206	1,852	1,884	1,903
Total	1,360	1,480	2,119	2,262	2,311
South America:					
Brazil	2	4	20	22	10
Venezuela	0	0	0	6	4
Total	2	4	20	28	14
EU:					
Belgium-Luxembourg	1,712	1,687	1,714	1,843	1,862
Denmark	143	197	178	170	172
France	571	893	1,048	1,170	1,300
Germany	1,537	1,880	1,300	1,100	1,490
Greece	0	6	20	30	25
Ireland	3	3	3	3	3
Italy	50	56	29	51	40
Netherlands	7,980	8,248	8,373	7,869	7,380
Portugal	22	22	66	53	43
Spain	25	53	112	49	53
United Kingdom	410	620	243	245	251
Total, including intra-EU	12,453	13,665	13,086	12,583	12,619
Intra-EU	10,416	11,483	10,832	9,759	9,850
Other Western Europe					
(Finland)	326	329	208	191	230
Russia	0	20	20	10	5
Eastern Europe:					
Hungary	125	100	95	95	90
Poland	15	107	10	10	20
Romania	535	0	0	0	0
Total	675	207	105	105	110
Middle East:					
Israel	145	46	50	49	51
Saudi Arabia	166	203	173	213	221
Turkey	1,214	47	16	16	7
Total	1,525	296	239	278	279
Africa (South Africa)	34	90	111	92	86
Asia:					
China	814	786	788	965	900
Hong Kong	55	45	35	36	36
Japan	4	2	2	0	0
Taiwan	26	0	0	9	9
Total	899	833	825	1,001	945
Oceania (Australia)	100	38	38	41	41
Total, world:					
Including intra-EU	17,374	16,962	16,771	16,591	16,640
Excluding intra-EU	6,958	5,479	5,939	6,832	6,790

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

Table A-10
Eggs: Harmonized Tariff Schedule subheading; description; U.S. col. 1 rate of duty as of Jan. 1, 1994; U.S. exports, 1993; and U.S. imports, 1993

HTS subheading	Description	Col. 1 rate of duty as of Jan. 1, 1994		U.S. exports, 1993	U.S. imports, 1993
		General	Special[1]		
				Million dollars	
0407.00.00	Birds' eggs, in shell, fresh, preserved, or cooked	3.5¢/doz.	Free (A,E,IL, J,MX) 1.4¢ doz. (CA)	93	32
0408.11.00	Egg yolks, dried	59.5¢/kg.	Free (E,IL,J,MX) 23.8¢/kg. (CA)	9	(2)
0408.19.00	Egg yolks, other than dried	12.1¢/kg.	Free (E,IL,J,MX) 4.8¢/kg. (CA)	14	2
0408.91.00	Whole eggs, not in shell, dried	59.5¢/kg.	Free (E,IL,J,MX) 23.8¢/kg. (CA)	7	(2)
0408.99.00	Whole eggs, not in shell, other than dried	12.1¢/kg.	Free (E,IL,J,MX) 4.8¢/kg. (CA)	(2)	1
3502.10.10	Egg albumin, dried	59.5¢/kg.	Free (E,IL,J,MX) 23.8¢/kg. (CA)	6	1
3502.10.50	Egg albumin, other than dried	12.1¢/kg.	Free (E,IL,J,MX) 4.8¢/kg. (CA)	3	(2)

[1] Progams 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); United States-Canada Free-Trade Agreement, goods of Canada (CA) and Mexico (MX); Caribbean Basic Economic Recovery Act (E); United States-Israel Free Trade Area (IL); and Andean Trade Preference Act (J).
[2] Less than $500,000.

Source: USITC, *Harmonized Tariff Schedule of the United States (1994).* Exports and imports compiled from official statistics of the U.S. Department of Commerce.

Table A-11
Shell eggs: Total U.S. exports and exports under the Export Enhancement Program (EEP), 1989-93

Item	1989	1990	1991	1992	1993
Total exports:					
Quantity (*dozen*)	26,807,899	26,444,037	51,315,966	57,679,959	74,474,905
Value (*dollars*)	18,585,045	23,195,311	37,785,973	39,148,861	46,647,134
Unit value (*per dozen*)	$0.69	$0.88	$0.74	$0.68	$0.63
EEP exports:					
Quantity (*dozen*)	3,130,635	6,689,745	19,659,048	25,530,171	38,768,690
Bonus paid (*dollars*)	412,475	1,814,631	4,397,950	5,156,913	10,870,664
Average bonus (*per dozen*)	$0.13	$0.27	$0.22	$0.20	$0.28
EEP exports/ total exports (*percent*)	11.7	25.3	38.3	44.3	52.1
EEP bonus paid/total value (*percent*)	2.2	7.8	11.6	13.2	23.3
EEP average bonus/unit value (*percent*)	18.8	30.7	29.7	29.4	44.4

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

Table A-12
Eggs: Rates of duty, by selected countries and product types

Country and HTS subheading	Description	MFN rate of duty
Canada:		
04.07.00.00	Birds' eggs, in shell, fresh, preserved, or cooked	3.5¢/doz.
04.08.11.00	Egg yolks, dried	20% ad val.
04.08.19.00	Egg yolks, other than dried	15.43¢/kg
04.08.91.00	Whole eggs, not in shell, dried	20% ad val.
04.08.99.00	Whole eggs, not in shell, other than dried	15.43¢/kg.
35.02.10.10	Egg albumin, dried	20% ad val.
35.02.10.50	Egg albumin, other than dried	15.43¢/kg.
Japan:		
04.07.00.11	Hatching eggs	Free
04.07.00.21	Shell eggs, other than for hatching, fresh, chilled, or frozen	20% ad val.
04.07.00.22	Shell eggs, other than for hatching, other than fresh, chilled, or frozen	25% ad val.
04.08.11.00	Egg yolks, dried	25% ad val.
04.08.19.00	Egg yolks, other than dried	25% ad val.
04.08.91.00	Whole eggs, not in shell, dried	25% ad val.
04.08.99.00	Whole eggs, not in shell, other than dried	25% ad val.
35.02.10.00	Egg albumin	20% ad val.
European Union:		
04.07.00.11	Hatching eggs, of turkeys or geese	12% ad val.
04.07.00.19	Hatching eggs, of poultry other than turkeys or geese	12% ad val.
04.07.00.30	Shell eggs, of poultry, other than for hatching	12% ad val.
04.07.00.90	Shell eggs, other than of poultry	12% ad val.
04.08.11.10	Egg yolks, dried	22% ad val.
04.08.19.11	Egg yolks, liquid	22% ad val.
04.08.19.19	Egg yolks, frozen	22% ad val.
04.08.91.10	Whole eggs, not in shell, dried	22% ad val.
04.08.99.10	Whole eggs, not in shell, other than dried	22% ad val.
35.02.10.91	Egg albumin, dried	10% ad val.
35.02.10.99	Egg albumin, other than dried	10% ad val.
Russia:		
04.07.00.11	Hatching eggs, of turkeys or geese	Free
04.07.00.19	Hatching eggs, of poultry other than turkeys or geese	Free
04.07.00.30	Shell eggs, of poultry, other than for hatching	Free
04.07.00.90	Shell eggs, other than of poultry	Free
04.08.11.10	Egg yolks, dried	Free
04.08.19.11	Egg yolks, liquid	Free
04.08.19.19	Egg yolks, frozen	Free
04.08.91.10	Whole eggs, not in shell, dried	Free
04.08.99.10	Whole eggs, not in shell, other than dried	Free
35.02.10.91	Egg albumin, dried	15% ad val.
35.02.10.99	Egg albumin, other than dried	15% ad val.
China:		
04.07.00.21	Chicken eggs, in shell, fresh	55% ad val.
04.07.00.22	Duck eggs, in shell, fresh	55% ad val.
04.07.00.23	Goose eggs, in shell, fresh	55% ad val.
04.07.00.29	Other eggs, in shell, fresh	55% ad val.
04.07.00.91	Salted eggs	65% ad val.
04.07.00.92	Lime-preserved eggs	65% ad val.
04.07.00.99	Other prepared or preserved eggs, in shell	65% ad val.
04.08.11.00	Egg yolks, dried	65% ad val.
04.08.19.00	Egg yolks, other than dried	65% ad val.
04.08.91.00	Whole eggs, not in shell, dried	65% ad val.
04.08.99.00	Whole eggs, not in shell, other than dried	65% ad val.
35.02.10.10	Egg albumin, dried	55% ad val.
35.02.10.50	Egg albumin, other than dried	25% ad val.

Note.—Values are in foreign currency units.

Source: Compiled by the staff of the U.S. International Trade Commission.

Table A-13
Eggs: Canadian tariff reductions under the Uruguay Round Agreement

Tariff item number	Description of product	Base rate	Bound rate	Implementation period	Special safeguard[1]
0407	Birds' eggs, in shell, fresh, preserved, or cooked:				
	Of fowls of the species Gallus domesticus:				
0407.00.11	Hatching, for broilers, within access commitment	3.5¢/doz.	1.51¢/doz.	1995/2000	No
0407.00.12	Hatching, for broilers, over access commitment	280.4% but not < 342.7¢/doz.	238.3% but not < 291.2¢/doz.	1995/2000	Yes
0407.00.18	Other, within access committment	3.5¢/doz.	1.51¢/doz.	1995/2000	No
0407.00.19	Other, over access committment	192.3% but not < 94.0¢/doz.	163.5% but not < 79.9¢/doz.	1995/2000	Yes
0407.00.90	Other	3.5¢/doz.	1.51¢/doz.	1995/2000	No
0408	Birds' eggs, not in shell, and egg yolks, fresh, dried, cooked, by steaming or by boiling in water, moulded, frozen or otherwise prepared or preserved, whether or not containing added sugar or other sweetening matter:				
	Egg yolks:				
0408.11	Dried:				
0408.11.10	Within access commitment	20%	8.6%	1995/2000	No
0408.11.20	Over access commitment	720.1¢/kg.	612.1¢/kg.	1995/2000	Yes
0408.19	Other:				
0408.19.10	Within access commitment	15.43¢/kg.	6.63¢/kg.	1995/2000	No
0408.19.20	Over access commitment	178.5¢/kg.	151.7¢/kg.	1995/2000	Yes
	Other:				
0408.91	Dried:				
0408.91.10	Within access commitment	20%	8.6%	1995/2000	No
0408.91.20	Over access commitment	720.1¢/kg.	612.1¢/kg.	1995/2000	Yes
0408.99	Other:				
0408.99.10	Within access commitment	15.43¢/kg.	6.63¢/kg.	1995/2000	No
0408.99.20	Over access commitment	178.5¢/kg.	151.7¢/kg.	1995/2000	Yes
3502	Albumins, albuminates and other albumin derivatives:				
3502.10	Egg albumin:				
	Dried, evaporated, desiccated or powdered:				
3502.10.11	Within access commitment	20%	8.6%	1995/2000	No
3502.10.12	Over access commitment	720.1¢/kg.	612.01¢/kg.	1995/2000	Yes
	Other:				
3502.10.91	Within access commitment	15.43¢/kg.	6.63¢/kg.	1995/2000	No
3502.10.91[2]	Over access commitment	178.5¢/ kg.	151.7¢/kg.	1995/2000	Yes

[1] As specified under the provisions of Article 5 of the Agreement on Agriculture of the Uruguay Round Agreement.
[2] It appears that this item number is a typographical error.

Note.—Percentages are ad valorem; values are in Canadian currency units.

Source: Legal Instruments Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations Done at Marrakesh on 15 April, 1994, Schedule V, Canada.

Table A-14
Eggs: Canadian import quotas, by type, 1989-93

Type and year	Global quota	Global utilization	Share utilized
	1,000 dozen		*Percent*
Shell eggs:			
1989	7,164	6,831	95.35
1990	7,052	6,859	97.26
1991	7,049	6,955	98.67
1992	7,049	6,983	99.06
1993	7,064	4,639	65.67
	Number of eggs		
Broiler hatching eggs:			
1989[1]	54,410,439	55,381,826	101.79
1990	84,231,408	83,545,716	99.19
1991	80,637,693	79,880,244	99.06
1992	82,861,196	73,947,240	89.24
1993	82,733,473	80,736,444	97.59
Broiler hatching chicks:[2]			
1989	(3)	(3)	(3)
1990[4]	3,770,709	3,109,335	82.46
1991	17,147,096	14,615,838	85.24
1992	17,619,909	13,722,287	77.88
1993	17,592,750	14,486,827	82.35

[1] Beginning May 9.
[2] 1 chick = 1.27 eggs.
[3] Not applicable.
[4] Beginning Sept. 13.

Source: USDA, FAS, *Canada 1993 Annual Poultry Report*, Report #CA4035, U.S. Embassy, Ottawa, June 1, 1994, pp. 18-19.

Table A-15
Eggs: World consumption, by selected country groups and countries, 1989-93

(Million eggs)

Country group and country	1989	1990	1991	1992	1993[1]
North America:					
Canada	4,435	4,300	4,280	4,061	4,115
Mexico	16,233	16,281	17,839	17,666	18,144
United States	47,708	46,696	46,139	46,078	45,824
Total	68,376	67,277	68,258	67,805	68,083
South America:					
Argentina	3,050	3,100	3,750	2,817	2,205
Brazil	12,174	13,450	13,635	14,168	12,700
Venezuela	2,325	1,030	1,829	2,218	2,089
Total	17,549	17,580	19,214	19,203	16,994
EU:					
Belgium-Luxembourg	2,165	2,337	2,446	2,468	2,465
Denmark	1,375	1,364	1,412	1,464	1,298
France	15,806	14,989	15,490	15,526	15,420
Germany	21,615	20,620	19,998	19,532	18,680
Greece	2,527	2,593	2,535	2,500	2,550
Ireland	847	847	847	847	807
Italy	12,306	12,317	12,475	12,409	12,400
Netherlands	3,302	3,299	3,246	3,387	3,420
Portugal	1,515	1,580	1,613	1,767	1,804
Spain	10,586	10,977	10,307	8,869	9,178
United Kingdom	10,961	11,453	11,730	11,300	11,284
Total	83,005	82,376	82,089	80,069	79,306
Other Western Europe:					
Austria	1,674	1,649	1,645	1,646	1,652
Finland	881	832	800	824	818
Total	2,555	2,481	2,445	2,470	2,470
Eastern Europe:					
Romania	7,459	6,956	6,277	6,535	5,910
Poland	5,620	5,490	5,520	7,245	6,695
Total	13,079	12,446	11,797	13,780	12,605
Former Soviet Union:					
Russia	49,241	47,670	47,252	42,630	39,070
Ukraine	17,393	16,287	15,188	13,445	12,000
Total	66,634	63,957	62,440	56,075	51,070
Middle East:					
Israel	1,520	1,551	1,590	1,853	1,902
Saudi Arabia	2,400	2,470	2,525	2,590	2,590
Turkey	5,637	6,570	7,300	7,300	7,540
Total	9,557	10,591	11,415	11,743	12,032
Africa (Egypt)	3,000	2,800	2,645	2,700	2,750
Asia:					
China	137,100	154,180	173,377	191,203	201,660
Hong Kong	1,364	1,401	1,466	1,393	1,498
India	19,600	23,320	24,675	26,075	27,570
Japan	30,000	29,100	29,800	34,380	34,590
South Korea	6,701	6,810	7,370	7,350	7,780
Taiwan	3,834	3,840	3,845	4,452	4,771
Total	198,599	218,651	240,533	264,853	277,869
Oceania (Australia)	2,794	3,017	3,097	3,230	3,290
Total, world	465,148	481,176	503,933	521,928	526,469

[1] Preliminary.

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

Table A-16
Eggs: World per capita consumption, by selected country groups and countries, 1989-93

(Eggs per person)

Country groups and countries	1989	1990	1991	1992	1993[1]
North America:					
Canada	171	162	159	148	149
Mexico	193	184	197	191	192
United States	192	186	183	181	179
South America:					
Argentina	97	96	115	86	66
Brazil	83	88	88	90	79
Venezuela	124	52	91	107	99
EC:					
Belgium-Luxembourg	195	226	236	237	236
Denmark	220	265	274	284	248
France	262	264	272	271	268
Germany	253	260	250	243	231
Greece	240	258	252	248	253
Ireland	226	241	241	241	229
Italy	169	214	216	214	214
Netherlands	183	221	216	224	225
Portugal	129	152	155	169	172
Spain	248	282	264	227	234
United Kingdom	173	199	204	196	194
Other Western Europe:					
Austria	220	214	211	209	209
Finland	178	167	160	165	163
Eastern Europe (Poland)	198	144	144	189	174
FSU (Russia)	257	164	161	144	131
Middle East:					
Israel	356	360	350	390	387
Saudi Arabia	154	152	153	152	147
Turkey	104	115	125	122	124
Africa (Egypt)	58	52	48	48	48
Asia:					
China	126	136	151	163	170
Hong Kong	242	241	250	237	253
Japan	245	235	240	276	277
Oceania (Australia)	170	170	170	170	170

[1] Preliminary.

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

Table A-17
Eggs: U.S. production, beginning stocks, imports for consumption, exports of domestic merchandise, ending stocks, apparent U.S. consumption, ratio of imports to consumption, and ratio of exports to production, 1989-93

Year	U.S. production	Beginning stocks	U.S. imports	U.S. exports	Ending stocks	Apparent U.S. consumption	Ratio of imports to consumption	Ratio of exports to production
							Percent	
				Quantity (*million dozen*)				
1989	5,675	15	37	131	11	5,586	1	2
1990	5,737	11	17	143	12	5,610	(1)	2
1991	5,915	12	6	220	13	5,700	(1)	4
1992	5,942	13	8	231	14	5,720	(1)	4
1993	6,039	14	11	225	11	5,828	(1)	4
				Value (*million dollars*)				
1989	4,731	13	28	88	9	4,675	1	2
1990	4,823	9	24	99	10	4,747	1	2
1991	4,787	10	20	140	11	4,665	(1)	3
1992	4,148	9	27	134	10	4,042	1	3
1993	4,701	11	35	133	8	4,605	1	3
				Unit value (*dollars per dozen*)				
1989	0.83	0.85	0.76	0.68	0.85	0.84	(2)	(2)
1990	.84	.85	1.38	.69	.85	.85	(2)	(2)
1991	.81	.83	3.55	.64	.83	.82	(2)	(2)
1992	.70	.71	3.35	.58	.71	.71	(2)	(2)
1993	.78	.79	3.13	.59	.79	.79	(2)	(2)

[1] Less than 0.5 percent.
[2] Not meaningful.

Note.—Includes hatching eggs, table eggs, breaking eggs, and egg products. Quantities converted to shell egg equivalent basis.

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

Table A-18
Hatching eggs: U.S. production, exports of domestic merchandise, imports for consumption, apparent U.S. consumption, ratio of imports to consumption, and ratio of exports to production, 1989-93

Year	U.S. production	U.S. exports	U.S. imports	Apparent U.S. consumption	Ratio of imports to consumption	Ratio of exports to production
					Percent	
	Quantity *(million dozen)*					
1989	720	26	2	697	1	4
1990	750	27	2	725	1	4
1991	844	32	2	814	1	4
1992	786	27	2	762	1	3
1993	848	26	2	824	1	3
	Value *(million dollars)*					
1989	864	45	14	833	2	5
1990	922	45	15	892	2	5
1991	1,063	55	17	1,025	2	5
1992	983	45	23	961	2	5
1993	1,111	46	29	1,094	3	4
	Unit value *(dollars per dozen)*					
1989	1.20	1.75	6.54	1.20	(2)	(2)
1990	1.23	1.68	6.52	1.23	(2)	(2)
1991	1.26	1.74	9.29	1.26	(2)	(2)
1992	1.25	1.71	10.27	1.26	(2)	(2)
1993	1.31	1.77	13.01	1.33	(2)	(2)

[1] Less than 0.5 percent.
[2] Not meaningful.

Note.—Figures may not add to the totals shown, due to rounding.

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

Table A-19

Table eggs: U.S. production, beginning stocks, imports for consumption, exports of domestic merchandise, ending stocks, apparent U.S. consumption, ratio of imports to consumption, and ratio of exports to production, 1989-93

Year	U.S. production	Beginning stocks	U.S. imports	U.S. exports	Ending stocks	Apparent U.S. consumption	Ratio of imports to consumption	Ratio of exports to production
							Percent	
				Quantity (*million dozen*)				
1989	4,006	15	24	27	11	4,007	1	1
1990	3,936	11	9	26	12	3,918	(1)	1
1991	3,926	12	1	51	13	3,875	(1)	1
1992	3,922	13	2	58	14	3,866	(1)	1
1993	3,922	14	2	75	11	3,852	(1)	2
				Value (*million dollars*)				
1989	3,285	12	10	19	9	3,279	(1)	1
1990	3,228	9	6	23	10	3,210	(1)	1
1991	3,063	9	2	38	10	3,025	(1)	1
1992	2,549	8	3	39	9	2,513	(1)	2
1993	2,863	10	3	47	8	2,821	(1)	2
				Unit value (*dollars per dozen*)				
1989	0.82	0.82	0.41	0.69	0.82	0.82	(2)	(2)
1990	.82	.82	.67	.88	.82	.82	(2)	(2)
1991	.78	.78	1.95	.74	.78	.78	(2)	(2)
1992	.65	.65	1.24	.68	.65	.65	(2)	(2)
1993	.73	.73	1.81	.63	.73	.73	(2)	(2)

[1] Less than 0.5 percent.
[2] Not meaningful.

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

Table A-20
Egg products: U.S. production, exports of domestic merchandise, imports for consumption, apparent U.S. consumption, ratio of imports to consumption, and ratio of exports to production, 1989-93

Year	U.S. production	U.S. exports	U.S. imports	Apparent U.S. consumption	Ratio of imports to consumption	Ratio of exports to production
					Percent	
	Quantity *(1,000 pounds)*					
1989	846,187	24,137	4,728	826,778	1	3
1990	974,701	30,604	2,911	947,008	(2)	3
1991	1,063,632	50,074	1,140	1,014,698	(2)	5
1992	1,188,167	50,040	2,092	1,140,219	(2)	4
1993	1,289,853	46,000	3,661	1,247,514	(2)	4
	Quantity *(1,000 dozen)*[1]					
1989	949,000	78,000	11,000	882,000	1	8
1990	1,051,000	90,000	6,000	967,000	1	9
1991	1,145,000	137,000	3,000	1,011,000	(2)	12
1992	1,234,000	146,000	4,000	1,092,000	(2)	12
1993	1,269,000	124,000	7,000	1,152,000	1	10
	Value *(1,000 dollars)*					
1989	582,191	24,322	4,245	562,114	1	4
1990	673,186	30,973	2,740	644,953	(2)	5
1991	661,395	47,484	1,438	615,349	(2)	7
1992	615,654	48,930	1,643	568,367	(2)	8
1993	726,884	39,974	2,956	689,866	(2)	6
	Unit value *(dollars per pound)*					
1989	0.69	1.01	0.90	0.68	(3)	(3)
1990	.69	1.01	.94	.68	(3)	(3)
1991	.62	.95	1.26	.61	(3)	(3)
1992	.52	.98	.79	.50	(3)	(3)
1993	.56	.87	.81	.55	(3)	(3)
	Unit value *(dollars per dozen)*					
1989	0.61	0.31	0.39	0.64	(3)	(3)
1990	.64	.34	.46	.67	(3)	(3)
1991	.58	.35	.48	.61	(3)	(3)
1992	.50	.34	.41	.52	(3)	(3)
1993	.57	.32	.49	.60	(3)	(3)

[1] Converted to shell egg equivalent basis using conversion factors in USDA, ERS, *Weights, Measures, and Conversion Factors for Agricultural Commodities and Their Products*, Washington, D.C., June 1992, p. 35.
[2] Less than 0.5 percent.
[3] Not meaningful.

Note.—Annual quantity changes may differ between different measures of quantity owing to variations in the composition of egg product forms.

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

Table A-21
Eggs: U.S. per capita consumption, by items, 1970, 1980, and 1989-93

(Number of eggs, shell egg equivalent)

Item	1970	1980	1989	1990	1991	1992	1993
Shell eggs	277.2	237.4	192.2	185.9	182.6	180.4	177.8
Egg products	33.5	35.1	45.1	49.1	50.9	54.6	56.4
Total	310.7	272.5	237.3	235.0	233.5	235.0	234.2

Source: Estimated by the staff of the U.S. International Trade Commission based on data from USDA, ERS, *U.S. Egg and Poultry Statistical Series, 1960-92*, Statistical Bulletin No. 872, Jan. 1994; USDA, ERS, *Livestock and Poultry Situation and Outlook*, various issues.

Table A-22
Eggs: U.S. production, by types, 1989-93

Type	1989	1990	1991	1992	1993
	Quantity *(million dozen, shell egg equivalent)*				
Hatching eggs	720	750	844	786	848
Table eggs	4,006	3,936	3,926	3,922	3,922
Egg products	949	1,051	1,145	1,234	1,269
Total	5,675	5,737	5,915	5,942	6,039
	Share of total *(percent)*				
Hatching eggs	13	13	14	13	14
Table eggs	71	69	66	66	65
Egg products	17	18	19	21	21
Total	100	100	100	100	100

Note.—Figures may not add to totals shown due to rounding.

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

Table A-23
Eggs: U.S. imports for consumption, by principal sources, 1989-93

(1,000 dollars)

Source	1989	1990	1991	1992	1993
Canada	14,760	14,334	15,394	15,511	13,324
Namibia	0	0	390	3,535	5,273
United Kingdom	1,288	1,786	2,158	3,638	4,743
Israel	599	69	37	317	4,425
China	1,091	1,886	241	1,280	2,274
Botswana	1	2	0	224	1,096
Taiwan	1,202	1,475	1,094	778	907
Republic of South Africa	2	0	0	444	506
Netherlands	1,496	349	181	50	399
Thailand	209	138	301	323	327
Other	7,201	3,577	343	1,212	1,481
Total	27,849	23,617	20,137	27,311	34,755

Note.—Figures may not add to totals shown due to rounding.

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

Table A-24
Hatching eggs:[1] U.S. imports for consumption, by principal sources, 1989-93

Item	1989	1990	1991	1992	1993
			Quantity *(dozen)*		
Canada	1,767,162	1,917,201	1,620,882	1,913,28	71,437,468
Namibia	0	0	217	17,966	2,170
United Kingdom	184,435	276,861	80,403	115,877	181,280
Israel	0	0	0	191	97,547
Botswana	0	0	0	186	914
Republic of South Africa	0	0	0	110,911	244,477
Netherlands	29,730	19,350	20,130	4,776	90,755
Portugal	0	0	0	0	239
France	26,100	61,052	63,720	60,344	65,473
Mexico	0	0	0	9	151
All other	63,666	13,271	1,377	6,323	70,251
Total	2,071,093	2,287,735	1,786,729	2,229,870	2,190,725
			Value *(1,000 dollars)*		
Canada	11,401	12,278	13,734	14,452	11,158
Namibia	0	0	390	3,454	5,273
United Kingdom	1,275	1,778	2,112	3,637	4,727
Israel	0	0	0	317	4,300
Botswana	0	0	0	224	1,096
Republic of South Africa	0	0	0	444	506
Netherlands	308	288	181	50	399
Portugal	0	0	0	0	292
France	152	239	167	292	258
Mexico	0	0	0	2	182
All other	413	341	21	24	311
Total	13,550	14,924	16,603	22,895	28,502
			Unit value *(per dozen)*		
Canada	$6.45	$6.40	$8.47	$ 7.55	$7.76
Namibia	-	-	1,795.85	192.24	2,430.11
United Kingdom	6.91	6.42	26.27	31.38	26.08
Israel	-	-	-	1,661.68	44.08
Botswana	-	-	-	1,202.15	1,199.34
Republic of South Africa	-	-	-	4.00	2.07
Netherlands	10.35	14.89	8.97	10.57	4.39
Portugal	-	-	-	-	1,223.23
France	5.84	3.91	2.62	4.83	3.94
Mexico	-	-	-	188.89	1,205.96
All other	6.49	25.70	14.92	3.84	4.42
Average	6.54	6.52	9.29	10.27	13.01

[1] HTS item 0407.00.0020.

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

Table A-25
Shell eggs, other than for hatching:[1] U.S. imports for consumption, by principal sources, 1989-93

Item	1989	1990	1991	1992	1993
			Quantity *(dozen)*		
China	960,381	1,606,576	151,654	615,842	1,107,029
Taiwan	355,029	408,700	262,201	261,119	298,240
New Zealand	0	0	3,195	21,955	36,796
Hong Kong	222,357	108,707	[2]8	510	63,024
Israel	1,145,808	0	0	0	255,420
Denmark	56,572	41,322	6,354	30,196	25,242
Thailand	7,209	6,939	19,838	12,081	19,593
United Kingdom	0	0	0	83	7,533
Canada	92,445	3,900	621,158	8,970	1,728
Panama	0	0	0	0	4,350
All other	21,396,611	6,755,302	9,020	1,292,843	0
Total	24,236,412	8,931,446	1,073,428	2,243,599	1,818,955
			Value *(1,000 dollars)*		
China	1,037	1,872	241	1,150	1,986
Taiwan	926	1,070	816	729	793
New Zealand	0	0	14	90	151
Hong Kong	317	182	[2]2	2	127
Israel	329	0	0	0	89
Denmark	150	100	29	89	84
Thailand	19	26	39	26	37
United Kingdom	0	0	0	1	15
Canada	225	31	946	58	9
Panama	0	0	0	0	5
All other	7,052	2,671	9	628	0
Total	10,055	5,952	2,095	2,773	3,297
			Unit value *(per dozen)*		
China	$1.08	$1.16	$1.59	$1.87	$1.79
Taiwan	2.61	2.62	3.11	2.79	2.66
New Zealand	-	-	4.26	4.11	4.11
Hong Kong	1.43	1.67	[2] 211.50	2.97	2.02
Israel	.29	-	-	-	.35
Denmark	2.65	2.43	4.62	2.95	3.32
Thailand	2.58	3.79	1.98	2.12	1.87
United Kingdom	-	-	-	16.27	2.05
Canada	2.44	7.87	1.52	6.46	5.36
Panama	-	-	-	-	1.24
All other	.33	.40	.98	.49	-
Average	.41	.67	1.95	1.24	1.81

[1] HTS item 0407.00.0040.
[2] These data are believed to be in error.

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

Table A-26
Egg products:[1] U.S. imports for consumption, by principal sources, 1989-93

Item	1989	1990	1991	1992	1993
	Quantity *(kilograms)*				
Canada	1,603,360	994,771	221,443	661,809	1,344,777
Thailand	148,787	82,455	192,123	225,218	220,685
China	14,486	1,418	0	11,875	26,321
Japan	7,825	17,714	10,209	22,056	19,895
Taiwan	102,290	136,498	62,847	18,481	28,498
Israel	192,234	80,000	12,348	0	5,000
France	3,100	2,250	3,600	3,250	4,200
Malaysia	0	0	0	6,140	8,543
Sweden	6,992	0	0	0	1,432
Hong Kong	1,041	0	0	0	1,090
All other	64,569	5,483	14,361	0	242
Total	2,144,684	1,320,589	516,931	948,829	1,660,683
	Value *(1,000 dollars)*				
Canada	3,133	2,026	715	1,001	2,156
Thailand	190	111	262	297	291
China	54	5	0	129	188
Japan	54	89	65	128	130
Taiwan	271	405	278	49	90
Israel	271	69	37	0	37
France	23	19	30	28	34
Malaysia	0	0	0	11	23
Sweden	24	0	0	0	3
Hong Kong	9	0	0	0	2
All other	215	16	53	0	3
Total	4,245	2,740	1,438	1,643	2,956
	Unit value *(per kilogram)*				
Canada	$ 1.95	$ 2.04	$ 3.23	$1.51	$1.60
Thailand	1.28	1.35	1.36	1.32	1.32
China	3.74	3.77	-	10.90	7.15
Japan	6.86	5.02	6.38	5.80	6.52
Taiwan	2.65	2.97	4.42	2.65	3.16
Israel	1.41	.87	2.97	-	7.33
France	7.27	8.30	8.20	8.49	8.05
Malaysia	-	-	-	1.81	2.64
Sweden	3.45	-	-	-	2.17
Hong Kong	8.85	-	-	-	1.71
All other	3.34	2.96	3.67	-	12.62
Average	1.98	2.08	2.78	1.73	1.78

[1] HTS items 0408.11.00, 0408.19.0000, 0408.91.0000, 0408.99.0000, 3502.10.1000, and 3502.10.5000.

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

Table A-27
Eggs: World imports, by selected country groups and countries, 1989-93

(Million eggs)

Country group and country	1989	1990	1991	1992	1993[1]
North America:					
Canada	409	430	404	407	395
Mexico	164	136	135	151	180
United States	302	109	28	52	60
Total	875	566	539	558	575
South America:					
Argentina	5	5	25	30	16
Venezuela	3	0	46	38	41
Total	8	5	71	68	57
EU:					
Belgium-Luxembourg	1,153	1,083	1,026	1,115	1,124
Denmark	108	152	155	194	170
France	1,327	1,253	1,238	1,321	1,220
Germany	5,358	5,700	5,763	5,467	5,470
Greece	20	33	41	35	35
Ireland	210	210	210	210	210
Italy	1,133	919	936	1,006	970
Netherlands	622	746	857	798	800
Spain	471	371	235	243	246
United Kingdom	824	1,415	967	846	855
Total:					
Including intra-EU	11,226	11,882	11,428	11,235	11,100
Intra-EU	10,416	11,483	10,832	9,759	9,850
Other Western Europe					
(Austria)	350	413	413	296	303
Russia	199	200	120	78	70
Eastern Europe (Poland)	0	60	514	965	515
Middle East:					
Saudi Arabia	29	29	66	36	31
Turkey	1	5	11	30	30
Total	30	34	77	66	61
Africa (Egypt)	20	0	0	0	0
Asia:					
China	23	53	50	88	60
Hong Kong	1,605	1,631	1,690	1,633	1,740
Japan	751	769	1,093	771	775
Total	2,379	2,453	2,833	2,492	2,575
Total, world:					
Including intra-EU	15,087	15,722	16,023	15,810	15,316
Excluding intra-EU	4,671	4,139	5,191	6,051	5,466

[1] Preliminary.

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

Table A-28
Eggs: U.S. exports of domestic merchandise, by principal markets, 1989-93

(1,000 dollars)

Market	1989	1990	1991	1992	1993
Canada	17,565	29,496	31,287	28,743	32,700
Hong Kong	4,502	10,835	22,843	22,411	24,749
Japan	16,584	20,286	32,705	30,572	24,034
Mexico	9,397	8,733	9,752	9,623	11,069
Jamaica	6,190	6,062	6,549	4,430	4,774
United Arab Emirates	34	246	735	2,139	4,324
West Germany	974	1,147	2,350	4,224	3,970
Spain	25	242	2,180	1,714	3,081
Colombia	110	68	510	2,008	2,644
Netherlands	407	503	1,003	3,083	2,185
Total other	31,883	21,478	30,304	24,555	19,390
Total	87,671	99,095	140,218	133,502	132,919

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

Table A-29
Hatching eggs:[1] U.S. exports of domestic merchandise, by principal markets, 1989-93

Market	1989	1990	1991	1992	1993
			Quantity *(dozen)*		
Canada	9,064,520	11,178,628	9,820,828	8,912,370	9,878,416
Jamaica	3,431,765	3,669,539	3,641,681	2,588,579	2,806,811
Spain	0	30,682	332,011	275,790	803,976
Mexico	1,087,071	2,878,780	3,896,506	1,624,848	2,864,884
Colombia	6,041	4,500	239,473	1,209,257	1,842,098
Nicaragua	0	91,000	389,092	884,477	1,332,038
West Germany	447,504	267,324	191,493	175,783	329,695
Brazil	856,769	1,197,757	754,936	718,307	708,612
Netherlands	108,380	116,577	135,656	703,654	490,788
Trinidad and Tobago	352,576	567,243	517,140	326,643	594,014
All other	10,261,570	6,771,150	11,622,185	9,116,607	4,436,378
Total	25,616,196	26,773,180	31,541,001	26,536,315	26,087,710
			Value *(1,000 dollars)*		
Canada	11,445	18,420	16,422	14,823	18,018
Jamaica	5,577	6,045	6,543	4,391	4,774
Spain	0	231	2,174	1,714	3,081
Mexico	1,108	2,771	4,066	1,727	2,928
Colombia	5	3	314	1,782	2,599
Nicaragua	0	151	683	1,391	2,133
West Germany	416	838	400	394	1,588
Brazil	763	1,476	1,336	661	1,587
Netherlands	292	434	901	1,558	1,116
Trinidad and Tobago	732	1,136	979	611	877
All other	24,426	13,423	21,130	16,372	7,597
Total	44,764	44,927	54,948	45,422	46,298
			Unit value *(per dozen)*		
Canada	$1.26	$1.65	$1.67	$1.66	$1.82
Jamaica	1.63	1.65	1.80	1.70	1.70
Spain	-	7.52	6.55	6.21	3.83
Mexico	1.02	.96	1.04	1.06	1.02
Colombia	.89	.66	1.31	1.47	1.41
Nicaragua	-	1.66	1.76	1.57	1.60
West Germany	.93	3.14	2.09	2.24	4.82
Brazil	.89	1.23	1.77	.92	2.24
Netherlands	2.69	3.72	6.64	2.21	2.27
Trinidad and Tobago	2.08	2.00	1.89	1.87	1.48
All other	2.38	1.98	1.82	1.80	1.71
Average	1.75	1.68	1.74	1.71	1.77

[1] Schedule B number 0407.00.0020.

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

Table A-30
Shell eggs, other than for hatching:[1] U.S. exports of domestic merchandise, by principal markets, 1989-93

Market	1989	1990	1991	1992	1993
			Quantity *(dozen)*		
Hong Kong	7,035,610	13,841,197	29,740,332	29,616,812	38,780,240
Canada	3,416,792	7,397,721	14,407,403	14,118,835	16,577,755
United Arab Emirates	52,480	369,869	1,037,220	3,240,158	8,048,055
Mexico	12,495,949	2,318,055	3,246,544	5,669,449	4,213,706
Kuwait	0	0	0	179,310	2,831,288
Oman	81,300	0	316,800	432,077	1,798,947
Bermuda	418,850	389,929	383,602	334,775	167,932
Japan	113,285	53,354	131,236	349,894	432,631
South Korea	16,410	79,481	91,252	310,572	213,278
Israel	37,438	121,764	134,872	113,720	226,895
All other	3,139,785	1,872,667	1,826,705	3,314,357	1,184,178
Total	26,807,899	26,444,037	51,315,966	57,679,959	74,474,905
			Value *(1,000 dollars)*		
Hong Kong	4,341	10,574	22,074	21,596	24,072
Canada	3,320	5,965	9,274	8,202	9,993
United Arab Emirates	34	246	669	2,090	4,312
Mexico	7,404	4,201	2,950	3,745	3,268
Kuwait	0	0	0	127	1,704
Oman	67	0	199	248	1,061
Bermuda	417	278	264	222	528
Japan	243	194	234	380	352
South Korea	15	52	68	249	184
Israel	22	73	81	75	136
All other	2,722	1,612	1,974	2,215	1,037
Total	18,585	23,195	37,786	39,149	46,647
			Unit value *(per dozen)*		
Hong Kong	$0.62	$0.76	$0 .74	$0.73	$0.62
Canada	.97	.81	.64	.58	.60
United Arab Emirates	.65	.66	.65	.64	.54
Mexico	.59	1.81	.91	.66	.78
Kuwait	-	-	-	.71	.60
Oman	.82	-	.63	.57	.59
Bermuda	.99	.71	.69	.66	3.14
Japan	2.15	3.63	1.78	1.09	.81
South Korea	.89	.66	.74	.80	.86
Israel	.60	.60	.60	.66	.60
All other	.87	.86	1.08	.67	.88
Average	.69	.88	.74	.68	.63

[1] Schedule B number 0407.00.0040.

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

Table A-31
Egg products:[1] U.S. exports of domestic merchandise, by principal markets, 1989-93

Market	1989	1990	1991	1992	1993
	Quantity *(kilograms)*				
Japan	7,702,151	7,315,558	14,511,847	12,440,034	11,560,726
Mexico	388,984	967,531	1,348,587	2,107,930	2,695,709
Canada	1,418,180	4,690,844	5,073,971	5,398,044	4,199,211
West Germany	173,428	49,999	394,987	1,137,567	824,288
Netherlands	39,251	20,567	8,465	165,127	276,123
United Kingdom	89,938	192,114	248,770	252,974	174,803
Hong Kong	117,304	11,884	247,423	278,199	181,229
South Korea	69,004	144,268	163,807	223,960	70,256
Singapore	22,366	61,207	160,850	79,726	97,302
Austria	6,000	20,000	115,000	0	61,970
All other	921,854	407,776	439,611	614,303	723,596
Total	10,948,460	13,881,748	22,713,318	22,697,864	20,865,213
	Value *(1,000 dollars)*				
Japan	16,338	20,083	32,459	30,179	23,677
Mexico	885	1,761	2,736	4,151	4,874
Canada	2,800	5,111	5,591	5,719	4,689
West Germany	558	308	1,950	3,524	2,382
Netherlands	115	69	39	538	1,059
United Kingdom	581	1,188	1,189	1,140	722
Hong Kong	147	79	359	653	334
South Korea	207	623	689	914	226
Singapore	75	183	422	242	217
Austria	14	54	466	0	192
All other	2,601	1,513	1,585	1,870	1,603
Total	24,322	30,973	47,484	48,930	39,974
	Unit value *(per kilogram)*				
Japan	$2.12	$2.75	$2.24	$2.43	$2.05
Mexico	2.27	1.82	2.03	1.97	1.81
Canada	1.97	1.09	1.10	1.06	1.12
West Germany	3.22	6.16	4.94	3.10	2.89
Netherlands	2.93	3.37	4.55	3.26	3.84
United Kingdom	6.47	6.19	4.78	4.51	4.13
Hong Kong	1.25	6.63	1.45	2.35	1.84
South Korea	3.01	4.32	4.21	4.08	3.22
Singapore	3.37	2.99	2.62	3.04	2.23
Austria	2.40	2.71	4.05	-	3.10
All other	2.82	3.71	3.61	3.04	2.21
Average	2.22	2.23	2.09	2.16	1.92

[1] Schedule B numbers 0408.11.0000, 0408.19.0000, 0408.91.0000, 0408.99.0000, 3502.10.1000, and 3502.10.5000.

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

Table A-32
Eggs: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1989-93[1]

(Million dollars)

Item	1989	1990	1991	1992	1993
U.S. exports of domestic merchandise:					
Canada	18	29	31	29	33
Hong Kong	5	11	23	22	25
Japan	17	20	33	31	24
Mexico	9	9	10	10	11
Jamaica	6	6	7	4	5
United Arab Emirates	(2)	(2)	1	2	4
Germany	1	1	2	4	4
Spain	(2)	(2)	2	2	3
Colombia	(2)	(2)	1	2	3
Nicaragua	0	(2)	1	1	2
All other	32	22	31	26	19
Total	88	99	140	134	133
EU	3	5	9	12	11
OPEC	16	5	9	9	8
ASEAN	1	1	1	1	1
CBERA	15	13	15	12	11
Central Europe	(2)	0	0	(2)	(2)
U.S. imports for consumption:					
Canada	15	14	15	16	13
Hong Kong	(2)	(2)	(2)	(2)	(2)
Japan	(2)	(2)	(2)	(2)	(2)
Mexico	0	0	0	(2)	(2)
Jamaica	0	0	0	0	0
United Arab Emirates	0	0	0	0	0
Germany	3	2	0	(2)	(2)
Spain	(2)	0	0	0	0
Colombia	0	0	0	0	(2)
Nicaragua	0	0	0	0	0
All other	10	7	5	12	21
Total	28	24	20	27	35
EU	6	4	3	4	6
OPEC	0	0	0	(2)	0
ASEAN	(2)	(2)	(2)	(2)	(2)
CBERA	(2)	0	0	1	(2)
Central Europe	0	(2)	0	(2)	0
U.S. merchandise trade balance:					
Canada	3	15	16	13	19
Hong Kong	5	11	23	22	25
Japan	17	20	33	30	24
Mexico	9	9	10	10	11
Jamaica	6	6	7	4	5
United Arab Emirates	(2)	(2)	1	2	4
Germany	-2	-1	2	4	4
Spain	(2)	(2)	2	2	3
Colombia	(2)	(2)	1	2	3
Nicaragua	0	(2)	1	1	2
All other	22	14	26	15	-1
Total	60	75	120	107	98
EU	-3	1	6	8	5
OPEC	16	5	9	9	7
ASEAN	1	(2)	(2)	(2)	(2)
CBERA	15	13	15	11	11
Central Europe	(2)	(3)	0	(2)	(2)

[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" and not "Central Europe."
[2] Less than $500,000.
[3] Less than -$500,000.

Note.—Figures may not add to totals shown due to rounding.
Source: Compiled from official statistics of the U.S. Department of Commerce.

APPENDIX B
EXPLANATION OF 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 incorporate the internationally adopted Harmonized Commodity Description and Coding System through the 6-digit level of product description and have U.S. product subdivisions at the 8-digit level. Chapters 98 and 99 contain special U.S. classifications and temporary rate provisions, respectively.

Duty rates in the ***general*** subcolumn of HTS column 1 are most-favored-nation (MFN) rates, many of which have been eliminated or are being reduced as concessions resulting from the Uruguay Round of Multilateral Trade Negotiations. Column 1-general duty rates apply to all countries except those enumerated in HTS general note 3(b) (Afghanistan, Azerbaijan, Cuba, Kampuchea, Laos, North Korea, and Vietnam), which are subject to the rates set forth in ***column 2***. Albania, Armenia, Belarus, Bosnia, Bulgaria, the People's Republic of China, Croatia, the Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Macedonia, Moldova, Mongolia, Poland, Romania, Russia, Slovakia, Slovenia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan are accorded MFN treatment. Specified goods from designated MFN-eligible 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 or in the general notes. If eligibility for special tariff rates is not claimed or established, goods are dutiable at column 1-general rates. The HTS does not enumerate those countries as to which a total or partial embargo has been declared.

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 for 10 years and extended three times thereafter, applies to merchandise imported on or after January 1, 1976 and before the close of July 30, 1995. Indicated by the symbol "A" or "A*" in the special subcolumn, 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 4 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. Indicated by the symbol "E" or "E*" in the special subcolumn, the CBERA provides duty-free entry to eligible articles, and reduced-duty treatment to certain other articles, which are the product of and imported directly from designated countries, as set forth in general note 7 to the HTS.

Free rates of duty in the special subcolumn followed by the symbol "IL" are applicable to products of Israel under the ***United States-Israel Free Trade Area Implementation Act*** of 1985 (IFTA), as provided in general note 8 to the HTS.

Preferential nonreciprocal duty-free or reduced-duty treatment in the special subcolumn followed by the symbol "J" or "J*" in parentheses is afforded to eligible articles the product of designated beneficiary countries under the ***Andean Trade Preference Act*** (ATPA), enacted as 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 11 to the HTS.

Preferential or free rates of duty in the special subcolumn followed by the symbol "CA" are applicable to eligible goods of Canada, and those followed by the symbol "MX" are applicable to eligible goods of Mexico, under the ***North American Free Trade Agreement***, as provided in general note 12 to the HTS, implemented effective January 1, 1994 by Presidential Proclamation 6641 of December 15, 1993.

Other special tariff treatment applies to particular ***products of insular possessions*** (general note 3(a)(iv)), goods covered by the ***Automotive Products Trade Act*** (APTA) (general note 5) and the ***Agreement on Trade in Civil Aircraft*** (ATCA) (general note 6), ***articles imported from freely associated states*** (general note 10), ***pharmaceutical products*** (general note 13), and ***intermediate chemicals for dyes*** (general note 14).

The ***General Agreement on Tariffs and Trade 1994*** (GATT 1994), annexed to the Agreement Establishing the World Trade Organization, replaces an earlier agreement (the GATT 1947 [61 Stat. (pt. 5) A58; 8 UST (pt. 2) 1786]) as the primary multilateral system of disciplines and

principles governing international trade. Signatories' obligations under both the 1994 and 1947 agreements focus upon 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, dispute settlement, and other measures. The results of the Uruguay Round of 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 importing and exporting countries to negotiate bilateral agreements limiting textile and apparel shipments, or for importing countries to take unilateral action in the absence or violation of an agreement. These agreements establish quantitative limits on textiles and apparel of cotton, other vegetable fibers, wool, man-made fibers or silk blends in an effort to prevent or limit market disruption in the importing countries—restrictions that would otherwise be a departure from GATT provisions. The United States has bilateral agreements with many supplying countries, including the four largest suppliers: China, Hong Kong, the Republic of Korea, and Taiwan.