

Industry & Trade Summary

**Furniture and Motor
Vehicle Seats**

**USITC Publication 3382
January 2001**

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



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PREFACE

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

This report on *Furniture* covers the period 1995 through 1999 and represents one of approximately 250 to 300 individual reports on a wide range of products. Listed below are the individual summary reports published to date on the minerals, metals, machinery, and miscellaneous manufactures sectors.

<i>USITC</i> <i>publication</i> <i>number</i>	<i>Publication</i> <i>date</i>	<i>Title</i>
2426	November 1991	Toys and models
2475	July 1992	Fluorspar and certain other mineral substances
2476	January 1992	Lamps and lighting fittings
2504	November 1992	Ceramic floor and wall tiles
2523	June 1992	Prefabricated buildings
2546	August 1992	Agricultural and horticultural machinery
2570	November 1992	Electric household appliances and certain heating equipment
2587	January 1993	Heavy structural steel shapes
2623	April 1993	Copper
2633	June 1993	Textile machinery and parts
2653	June 1993	Glass containers
2692	November 1993	Refractory ceramic products
2694	November 1993	Flat glass and certain glass products
2706	April 1994	Aluminum
2738	February 1994	Structural ceramic products
2742	March 1994	Fiberglass products
2748	March 1994	Brooms, brushes, and hair-grooming articles
2756	March 1994	Air-conditioning equipment and parts

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. i

PREFACE—*Continued*

<i>USITC publication number</i>	<i>Publication date</i>	<i>Title</i>
2757	March 1994	Builders hardware
2758	March 1994	Semifinished steel
2765	April 1994	Metalworking machine tools and accessories
2872	May 1995	Abrasives
2857	May 1995	Industrial food-processing machinery and related equipment
2858	May 1995	Precious metals
2880	June 1995	Stainless steel mill products
3018	March 1997	Gemstones
3161	March 1999	Certain nonferrous metals
3350	September 2000	Grain (Cereals)
3352	September 2000	Edible nuts
3355	September 2000	Newsprint
3373	November 2000	Distilled spirits
3382	January 2001	Furniture and motor vehicle seats

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ABSTRACT

This summary addresses trade and industry conditions for the furniture industry for the period 1995-99.

- Fully assembled mid- to upper-priced household furniture accounts for the largest portion of the U.S. furniture market. High transportation costs for such furniture constrain U.S. imports. U.S. manufacturers are cost efficient producers of top quality household furniture and are the industry leaders in the production and design of motor vehicle seats and systems office furniture.
- NAFTA partner trade in motor vehicle seats has increased significantly because of the integration of the North American automotive sector, growing investments in auto assembly plants in the United States and Mexico by Japanese and German producers, and the introduction of modular assembly for the interiors of automobiles.
- Furniture manufacturers and their dealer networks have overcome initial resistance to e-commerce and now embrace that marketing strategy to avoid losing business to competing virtual retailers. "Clicks and mortar" are emerging as an internet strategy.
- Canada is the principal source of U.S. imports of furniture, followed by China, Mexico, Italy, and Taiwan. The bulk of U.S. imports from China are low- to mid-priced wood household furniture and parts that can be cost efficiently shipped, especially ready-to-assemble (RTA) furniture.
- East Asian producers have opened assembly/production facilities in the United States for mid-to-upper priced, fully-assembled wood household furniture. Higher profit margins in this U.S. market segment are driving this strategy, although the lower-priced segment remains dominated by imports from East Asian manufacturers.
- Canada's close proximity to U.S. manufacturing locations makes it by far the leading foreign market for U.S.-made household and office furniture. Parts of motor vehicle seats shipped to Canada and Mexico for assembly into finished seats or seat covers account for the largest portion of U.S. exports.
- High transportation costs for fully-assembled furniture greatly reduces the cost competitiveness of U.S. furniture in other markets. To service more distant markets, several U.S. producers of office furniture and a few U.S. household furniture manufacturers have established fabrication facilities in Europe and Asia.

INTRODUCTION

This summary provides information on the U.S. and foreign industries producing furniture,¹ U.S. and foreign tariff policies and nontariff measures in effect for these products, and the U.S. industry's performance in domestic and foreign markets. The report covers the period 1995-99. The principal products covered by this summary are household furniture, office furniture, and motor vehicle seats.² Based on U.S. Department of Commerce, Bureau of the Census data,³ there were more than 19,000 domestic manufacturers of furniture in 1999, with U.S. producers' shipments totaling an estimated \$74 billion.⁴

The principal raw materials used to make furniture encompass a diverse range of products, including fabrics, cushions, plastics, furniture hardware, metal mill shapes, and wood (figure 1). The principal types of lumber used by North American wood furniture manufacturers are oak, cherry, yellow poplar, maple, and pine. Processes used in the manufacture of furniture vary widely from customized work requiring skilled workers to mass production performed by high-speed machines. U.S. producers of furniture consist primarily of: (1) integrated manufacturers of either household or office furniture; (2) assemblers of pre-cut wood household or upholstered furniture; (3) niche producers; or (4) automotive seat producers.

¹ Furniture is defined as moveable, utilitarian articles that are generally placed on the floor (e.g., sofas, bookcases, desks, chairs, chests, cabinets, and bed frames). For the purposes of tariff classification, furniture such as motor vehicle seating, is considered movable even if it is designed for bolting to the floor. See World Customs Organization, *Explanatory Notes of the Harmonized Commodity Description and Coding System*, Section XX, Chapter 94--Miscellaneous Manufactured Articles, Furniture, Volume V, p. 1697. For industry discussion on pillows, and quilts see USITC, *Industry and Trade Summary, Home Textiles*, publication 3170, Mar. 1999.

² Household furniture accounted for an estimated 52 percent (\$38.4 billion) of U.S. producers' shipments of products in 1999; office furniture accounted for 17 percent (\$12.5 billion); and motor vehicle seats and parts, 10 percent (\$7.5 billion). All other types of furniture accounted for the remaining 21 percent (\$15.5 billion) of shipments in 1999. "Other furniture" consists of: (1) kitchen cabinets; (2) fixtures for restaurants and stores (display cases and booths); (3) fixed seating for stadiums, and theaters; (4) specialized furniture for laboratories, hospitals, public buildings, libraries, churches, and schools; and (5) mattresses.

³ The U.S. industries examined in the report are included in the following North American Industrial Classification System (NAICS) categories: (1) Kitchen Cabinets NAICS Industry No. 3371A; (2) Household furniture, NAICS Industry No. 3371B-3371E; (3) Institutional Furniture, NAICS Industry No. 3371F; (4) Office Furniture, NAICS Industry No. 3372 A, 3372C, and 3372D; (5) Automobile Seat Covers, NAICS Industry No. 3363; (6) Mattresses, NAICS No. 3379 (7) Laboratory Furniture and Parts, NAICS Industry No. 3391; and (8) Medical Furniture, NAICS Industry No. 3391.

⁴ The American Furniture Manufacturers Association forecasts that the growth in U.S. shipments of household furniture will be 2.8 percent in 2000, compared with 7.6 percent in 1999. The Business Furniture Manufacturers Association forecasts office furniture shipments to increase by 4 percent in 2000, compared with almost no growth in 1999. According to industry sources, the private sector held back on office furniture purchases until they were certain that U.S. economic growth would remain strong through 2000.

Figure 1
Furniture and motor vehicle seats: Principal raw materials, producer types, major products, and principal consumers

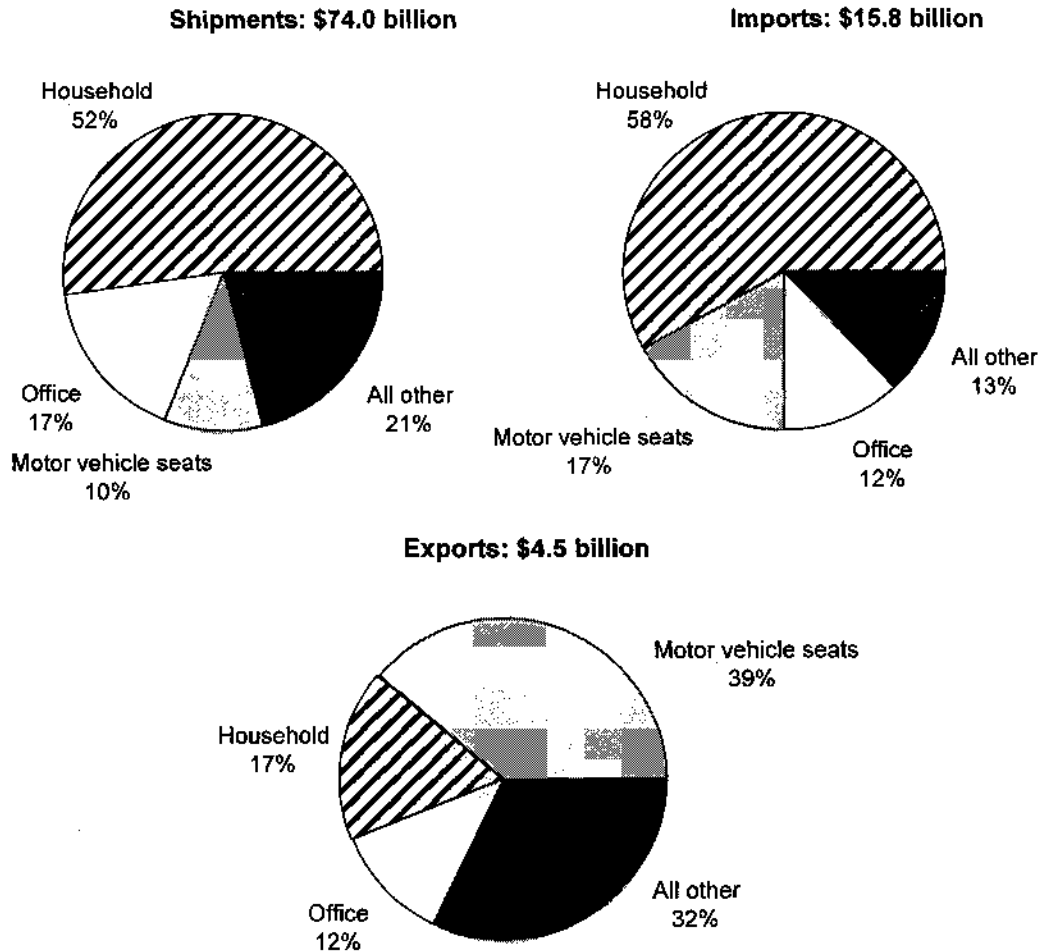
U.S. Furniture Industry			
Principal raw materials	Producer types	Major products	Principal consumers
<ul style="list-style-type: none"> • Wood • Metal mill shapes • Plastics • Fabric and cushions • Paint and varnish • Furniture hardware 	<ul style="list-style-type: none"> • Integrated manufacturer • Assembler • Niche producer • Automotive seat producer 	<ul style="list-style-type: none"> • Household furniture • Office furniture • Ready-to-assemble (RTA) furniture • Upholstered furniture • Automobile seating • Institutional furniture • Outdoor furniture • Mattresses 	<ul style="list-style-type: none"> • Retailers and e-tailers • Government purchasing agents • Corporate purchasing agents • Households • Motor vehicle producers

Source: U.S. Department of Commerce, Bureau of the Census, 1997 *Economic Census*; industry sources.

Although the United States is a net importer of furniture, and imports have increased steadily during 1995-99, U.S. producers are world-class manufacturers which still supply the bulk of the U.S. furniture market (figure 2). Fully assembled, mid- to upper-priced wood household furniture such as dining room tables, chests of drawers, and upholstered sofas and chairs, account for the bulk of U.S. household furniture consumption. Foreign producers, with the exception of Canada, are at a significant disadvantage in this segment of the U.S. market because of the high transportation costs associated with fully assembled household furniture. The majority of household furniture producers in Mexico have not been able to enter the mid-to-upper priced segment of the U.S. furniture market because they have not acquired the necessary production technology for furniture finishes. U.S. office furniture producers dominate the domestic market because they are the industry leaders in the manufacture of systems office furniture owing to highly automated methods of manufacture and top quality designs.

Motor vehicle seats accounted for the largest share of U.S. exports, with most of these parts and finished seats going to plants in Canada and Mexico for the assembly of automobile seats and motor vehicles, respectively. These exports reflect the highly rationalized nature of North American automobile production as U.S. producers of motor vehicles have major assembly operations in Canada and Mexico. Exports of office furniture are limited because the leading U.S. producers typically supply foreign markets from manufacturing facilities located in those markets.

Figure 2:
Furniture: U.S. producers' shipments, imports, and exports, by category, and share of total in 1999



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

The United States, the European Union (EU), and the East-Asian countries of China, Taiwan, Malaysia, and Indonesia were the major world producers and exporters of furniture in 1999. EU furniture producers operate highly automated plants for ready-to-assemble (RTA) household furniture; and according to industry sources, certain EU manufacturers have a worldwide reputation for top quality, fully-assembled household and office furniture. Superior quality and design have enabled certain Italian household furniture producers (especially those concentrating on upholstered leather sofas) to compete successfully in world markets. East-Asian producers of RTA furniture are reported by industry sources as effectively competing with U.S. manufacturers on the basis of having access to a skilled, low-cost labor force, and steadily improving methods of wood working and finishing. Although Canada and Mexico are the largest trading partners with the United States, the NAFTA partners are not major world furniture exporters. A significant portion of U.S. trade with Canada and Mexico involves integrated North American production of motor vehicle seats.

International competition in the household furniture industry reportedly is becoming more intense because: (1) the quality of East-Asian woodworking and finishing is now comparable to furniture made in the United States and the EU, (2) demand for RTA furniture has increased in response to design improvements that have made it closer in appearance to traditional furniture and easy to assemble,⁵ and (3) reciprocal tariff reductions granted under bilateral and multilateral trade agreements have reduced importers' costs.⁶ Staged elimination of U.S. tariffs on all furniture, except mattresses imported from Canada under the U.S.-Canada Free-Trade Agreement, was completed on January 1, 1993.⁷ One year later, U.S. tariffs on furniture from Mexico were reduced to zero under the North American Free Trade Agreement.⁸ On January 1, 1999, the United States, seven other countries,⁹ and the EU reduced their normal trade relations (formerly most-favored-nations) rates of duty on furniture, except mattresses, to zero under the Uruguay Round of multilateral trade negotiations.

U.S. INDUSTRY PROFILE

U.S. producers of household furniture, office furniture, and motor vehicle seats and parts¹⁰ are the principal focus of this summary. These firms account for the bulk of U.S. shipments and trade. Firms employing over 200 workers will receive particular attention because they account for most of the investment, employment, furniture innovation, and improvements in technology.

Investment

U.S. furniture producers have established a modest number of foreign production facilities in order to supply their overseas market. U.S. direct investment abroad in furniture and fixtures during 1994-1998 (latest data available) averaged \$1.2 billion annually (table 1). The bulk of U.S. direct investment abroad was in Canada and the EU. Foreign direct investment in the United States for furniture was less than half as large during this period. EU and East Asian furniture manufacturers are believed to account for the bulk of foreign direct investment in the United States. Klausner, a German owned household furniture manufacturer located in Asheboro, North Carolina, is the fourth largest furniture

⁵ RTA furniture can be assembled and knocked down (i.e. disassembled) any number of times. As a result, it can be cost effectively shipped by manufacturers. Households that frequently relocate have often preferred RTA furniture over fully-assembled furniture.

⁶ USITC staff interviews with various industry sources.

⁷ The staged elimination of U.S. tariffs on imports of mattresses from Canada under the U.S.-CFTA was completed on January 1, 1998.

⁸ The staged elimination of U.S. tariffs on imports of mattresses from Mexico under NAFTA will be completed on January 1, 2003.

⁹ Canada, Hong Kong, Japan, Korea, Norway, Singapore, and Switzerland.

¹⁰ Given the concentration and limited number of producers in the motor vehicle seat industry there are no published industry data on (1) U.S. Direct Investment Abroad, (2) U.S. employment, (3) U.S. wage rates, and (4) U.S. business failures.

manufacturer in the United States. A number of East Asian producers have established assembly operations in the United States (see “foreign industry profile”).

Table 1
Furniture: U.S. direct investment abroad and foreign direct investment in the United States
1994-98¹

(Million dollars)

Investment	1994	1995	1996	1997	1998
U.S. direct investment abroad	807	805	1,265	1,375	1,696
Capital outflow	50	101	275	205	329
Income ³	6	29	63	185	265
Foreign direct investment in the United States	290	331	(D)	618	618
Capital inflow	68	45	(D)	(D)	85
Income ³	66	42	66	57	44

¹ Latest data available.

² Parent's claim on affiliate's income.

(D) Data that could potentially reveal information on individual companies has been suppressed.

Note.—“Furniture and fixtures” includes the following furniture categories: institutional; hospital; permanent seating for movie theaters and stadiums; and fixtures such as restaurant booths, retail display cases, board room table. The product category does not include motor vehicle seats, kitchen cabinets, and mattress.

Source: U.S. Department of Commerce, Economics and Statistics Administration, Bureau of Economic Analysis, International Data, (1) *Foreign Direct Investment in the United States*, and (2) *U.S. Direct Investment Abroad*, Industry Detail for Position, Capital Flow and Income, 1994-98, found at Internet address <http://www.bea.doc>, retrieved June 7, 2000.

Employment and Wages

The rate of growth in employment in the furniture and fixture sector was significantly stronger than that for all manufacturing during 1995-99 (table 2). Employment growth was strongest in the office furniture industry because efforts to automate peaked in the mid-1990s, and employment recovered during 1997-99. The modest growth in employment for the household furniture industry during 1995-99 was due in part to increasing levels of productivity. The automation of wood household furniture production has been prompted, in part, by intensified international competition.¹¹

Average hourly wages for production workers in the U.S. furniture and fixtures industry rose by 14 percent during 1995-99, to \$11.23 (table 3). These wage increases exceeded that for production workers in all U.S. manufacturing, which rose by 12 percent. Higher wages for household and office furniture employees reflect increasingly automated furniture production that requires a more highly skilled labor force.

¹¹ USITC staff interviews with various industry sources.

Table 2
Furniture: Comparison of employment for production workers, by selected sectors, 1995-99

Industry	1995	1996	1997	1998	1999	Change, 1999
						from 1995
	1,000 employees					Percent
Total private sector	80,125	82,092	84,529	86,805	88,911	11
All manufacturing	12,826	12,776	12,907	12,952	12,739	-1
Furniture and fixtures	403	398	407	425	437	8
Household furniture	234	231	234	239	247	6
Office furniture	47	46	48	52	54	15
All other	122	121	124	130	134	10

¹ Less than 0.5 percent.

Note.—“Furniture and fixtures” includes the following furniture categories: household, office, institutional; hospital; permanent seating for movie theaters and stadiums; and fixtures such as restaurant booths, retail display cases, board room tables. The product category does not include motor vehicle seats, kitchen cabinets, and mattresses.

Source: Bureau of Labor Statistics, *Nonfarm Payroll Statistics*, National Employment, Hours, and Earnings, found at Internet address <http://www.bls.gov/blshome.html>, “selective access series,” retrieved June 14, 2000.

Table 3
Furniture: Comparison of hourly wage rates by selected sectors, 1995-99

Industry	1995	1996	1997	1998	1999	Change, 1999
						from 1995
	dollars					Percent
Total private sector	11.43	11.81	12.28	12.77	13.24	16
All manufacturing	12.37	12.77	13.17	13.49	13.91	12
Furniture and fixtures	9.82	10.15	10.55	10.89	11.23	14
Household furniture	9.29	9.60	9.96	10.28	10.68	15
Office furniture	10.53	10.98	11.63	11.80	11.88	13

Source: Bureau of Labor Statistics, *Current Labor Force, Employment and Earnings Statistics*, found at Internet address <http://www.bls.gov/blshome.html>, “selective access series,” employment and unemployment, Nonfarm payroll statistics, by industry, average hourly wage rates of production or nonsupervisory workers, retrieved May 5, 2000.

U.S. Business Failures

Despite improvement in recent years, the furniture industry has a relatively high number of business failures. According to a Dunn and Bradstreet survey of 20 manufacturing sectors, the furniture industry experienced the fourth highest number of business failures (table 4) during 1994-97 (latest data available).¹² The apparel and other textile products sector was the only consumer products industry with a higher number of business failures during the same period. Most furniture producers are modest-sized operations employing less than 20

¹² Dunn and Bradstreet, *Business Failure Record*, found at Internet address www.dnbconomics.com, retrieved June 14, 2000.

persons. These firms generally serve local markets and are more vulnerable to adverse regional economic trends. Growing market dominance by large furniture retailers makes it difficult for small firms to remain competitive because they often do not have the financial resources to broaden their product lines or produce in the volumes required by major retailers that supply markets nationwide.¹³

The number of business failures in furniture manufacturing peaked in 1992 at 398, coinciding with declining growth during 1989-92. Such business failures have declined considerably since economic recovery during 1994-97, as strong U.S. demand for furniture paralleled the sustained growth of the U.S. economy. The reduced level of business failures during this period for furniture wholesale or retail operations followed the pattern for furniture manufacturing.

Table 4
Furniture: Comparison of the number of business failures by selected sectors, 1994-97

Industry	1994	1995	1996	1997
All manufacturing	4,652	4,385	4,093	4,207
Furniture:				
Manufacturing	253	229	184	163
Wholesale	286	208	179	170
Retail	2,058	1,547	1,470	1,432
Total	2,597	1,984	1,833	1,765

Source: Dunn and Bradstreet, *Business Failure Record*, Internet address <http://www.dnbconomics.com>, retrieved June 14, 2000.

Household Furniture

Household furniture is divided into three principal categories: (1) case goods, which include fully assembled wood furniture such as dining room tables and chairs, chests of drawers, and china cabinets; (2) RTA furniture which is designed to be assembled by the consumer, including book cases, home entertainment centers, computer stands, and other home office furniture; and (3) upholstered furniture such as sofas, chairs, and motion furniture/recliners.

The top 10 U.S. manufacturers of household furniture ranked by revenues accounted for about 36 percent of total household furniture revenues in 1999; combined, the top 25 manufacturers accounted for about 48 percent of such revenues in the same year (table 5). The remaining portion of furniture revenues were accounted for by an estimated 4,000 firms. These firms supply small but profitable market niches that major household furniture manufacturers bypass because product volumes are too low to justify changing production lines. For the same reasons, firms serving small niches are likely to face modest foreign competition. Examples of these market niches are region-specific styles of furniture such

¹³ USITC staff interviews with various industry sources.

Table 5
Household Furniture: Top U.S. manufacturers, by revenues, 1999

Manufacturer and U.S. headquarters	Type and country of ownership	Revenues 1999 <i>Millions dollars</i>	Divisions	Foreign Operations	
				Location	Type of arrangement ¹
Furniture Brands International (St. Louis, MO)	Public United States	2,088	Broyhill, Lane, and Thomasville	Canada EU Saudi Arabia	Independent sales agent Independent sales agent Independent sales agent
La-Z-Boy Inc. (Monroe, MI)	Public United States	2,064	Centurion, Corsair, Hammary, Kincaid, La-Z-Boy Canada, Sam Moore Furniture, La-Z-Boy Residential, American Drew, American of Martinsville, Barclay, Clayton Marcus, Lea Inds, Pennsylvania House, and Pilliod	Canada Germany UK Japan New Zealand Thailand	Subsidiary Licensee Licensee Licensee Licensee Joint venture
LifeStyle International, Ltd. (High Point, NC)	Public United States	1,830	Beacon Hill, BenchCraft, Berkline, Drexel Heritage Lexington, LifeStyle Contract Furnishings, Maitland-Smith, The Robert Allen Group, Sunbury, Herendon LaBarge, and Universal	Canada EU Hong Kong Malaysia Taiwan Indonesia China Philippines Thailand	Subsidiary Subsidiary Subsidiary Subsidiary Subsidiary Subsidiary Subsidiary Subsidiary Joint venture
Klaussner (Asheboro, NC)	Private Germany	935	JDI, Klaussner-California, Paoli and Realistic, Stylecraft, Klaussner International, Sentry, Bruce Furniture	Mexico	Independent sales agent
Ashley Furniture Industries Inc. (Arcadia, WI)	Private United States	816	Ashley and Millennium	Canada Mexico	Independent sales agent Independent sales agent
Ethan Allen (Danbury, CT)	Private United States	688	Ethan Allen, Knob Creek	Canada Japan Jordan Saudi Arabia	Independent sales agent Independent sales agent Independent sales agent Independent sales agent
Sauder Woodworking (Archbold, OH)	Private United States	550	None	No foreign operations	None
Bush Furniture (Jamestown, NY)	Public United States	412	Fournier Furniture	Germany	Subsidiary

See footnote at end of table.

Table 5—Continued
Household Furniture: Top U.S. manufacturers, by revenues, 1999

Manufacturer and U.S. headquarters	Type and Country of ownership	Revenues 1999	Divisions	Foreign Operations	
				Location	Type of arrangement ¹
		<i>Millions dollars</i>			
O'Sullivan Winchester, VA	Public United States	407	None	No foreign operations	None
Bassett Furniture Industries Inc. (Bassett, VA)	Public United States	397	Bassett Furniture Industries Inc. of North Carolina, and E.B. Malone	Regional sales agents	None

¹ Subsidiary and licensee arrangements are generally for production operations.

Source: *Furniture Today*, May 8, 2000, p. 21, and telephone contacts in 1999 with officials of the above companies.

as (1) Santa Fe, which is a style of furniture influenced by both the Spanish hacienda and native American culture; (2) Shaker, a simple style of furniture with its roots in the Shaker religion and culture; and (3) Modern, which has its origin in the art movement of the same name.¹⁴

Two of the top 10 producers have located their corporate headquarters in North Carolina due to various economic advantages. North Carolina has been a focal point for household furniture production since the mid-1900s because of access in the State to lower cost labor relative to the North East and Great Lakes regions, abundant hardwood forests, and proximity to Eastern markets. However, because of the size of its market, California is the leading site for furniture production facilities. In terms of manufacturing facilities, North Carolina and California combined accounted for roughly one-third of all household furniture establishments in 1999.

The leading household furniture manufacturers concentrate their production on high quality, fully- assembled, traditional furniture of wood (English colonial) that appeals to a broad range of mid-to-upper income North American consumers.¹⁵ This production strategy enables these manufacturers to maintain the volumes necessary for cost efficient semi-automated production (see following section on production technology). The lower unit costs provided by automation enable U.S. producers to compete more effectively with imports from Canada, Mexico, East Asia, and the EU.

¹⁴ USITC staff interviews with various industry sources.

¹⁵ Household furniture manufacturers also account for close to half of U.S. production of wood kitchen cabinets. The remaining production is accounted for by firms that primarily manufacture cabinets.

U.S. producers of RTA furniture compete with foreign manufacturers by providing a highly functional and competitively-priced product.¹⁶ The ability of U.S. producers to respond more quickly than foreign producers to the just-in-time inventory requirements demanded by U.S. distributors also is a significant competitive advantage because RTA furniture is generally sold by low-cost, high-volume firms (e.g., Ikea and Home Depot). These firms cut sales costs by maintaining low inventories. U.S.-made RTA furniture is offered in a variety of solid woods or artificial wood grain surfaces made from medium density fiber board and covered with high-pressure laminates, whereas products offered by RTA furniture manufacturers in East Asia are generally made from rubber wood. U.S.-made RTA furniture of artificial wood grain surfaces competes with RTA furniture made in East Asia on the basis of price, while U.S.-made RTA furniture of solid wood is considered of higher quality.

During 1995-99, several top manufacturers of household furniture (see table 5) underwent restructuring as companies sought to redefine their core businesses and divest themselves of operations that were unprofitable. For example, Furniture Brands International¹⁷ acquired Thomasville, the sixth largest U.S. manufacturer in December 1995. Over the next two years, Furniture Brands International consolidated all of its divisions into either Broyhill, or Lane and Thomasville.¹⁸ Another leading company, Lifestyle International, was created in August 1996, when Masco sold its Home Furnishings Division to a group of private investors led by Citicorp. Lifestyle consolidated the number of its subsidiaries from 20 to 12 during 1995-98.¹⁹ Other major household furniture companies involved in mergers or acquisitions during 1997-99 included Bush, Rowe, Century, La-Z-Boy, and Klaussner.²⁰

Most of the top U.S. household furniture producers have foreign operations, typically located in Canada or East Asia.²¹ U.S. subsidiary or licensee operations in East Asia principally manufacture RTA furniture for export to the United States, while those in Canada primarily assemble or manufacture furniture for the Canadian market. U.S. operations in the EU are generally local companies that assemble furniture from U.S.- and locally-made components for the EU market.

¹⁶ USITC staff interviews with a number of RTA firms including Sauder Woodworking, O'Sullivan, and Bush, the three major U.S. producers of RTA furniture. Sauder is also a leading supplier of RTA wood furniture for use in home offices.

¹⁷ Furniture Brands International formerly did business as Interco.

¹⁸ Divested operations include Highland House, Action Inds., Hickory Chair, Hickory Business Furniture, Pearson, Venture, Royal Development, Action Industries, and Ridgewood.

¹⁹ Former subsidiaries included Ametex, Baldwin Brass, Frederick Edward, Hickorycraft, IntroEurope, Marboro, Marge, Marvel, and Son & Crocker.

²⁰ Mann, Armistead & Epperson Ltd. (Richmond VA), "Special Report No. 3-Consolidation" (Jan. 1999), p. 16.

²¹ All but two (Sauder Woodworking and O'Sullivan) of the top household furniture manufacturers located in the United States have foreign operations. A significant portion of shipments by Sauder Woodworking and O'Sullivan is accounted for by RTA furniture. Transportation costs for such furniture is much lower than that for fully-assembled furniture, making direct exports price competitive with regionally-produced furniture.

*Production Technology*²²

Despite the broader application of numerically-controlled machinery noted below that facilitates new furniture designs, U.S. production of fully assembled wood household furniture remains moderately labor intensive compared with other types of manufacturing operations. Wood is cut, carved, and sanded into furniture components (table tops, legs, and seats) and subsequently assembled using glue, nails, and bolts. The fully assembled furniture is then finished. The finishing processes consists of spraying, drying, waxing, staining, and buffing the wood furniture. Upholstered furniture construction requires building a wood frame and attaching springs and padding to the frame. Fabric is then cut and sewn, along with zippers and buttons, to make slip covers for the seat and cushions. The labor skills involved in the production of wood and upholstered household furniture include skilled (upholstering and wood carving), moderately skilled (sanding, assembly, and spray finishing), and entry-level (packaging, and loading).

Technological improvements in methods of production have principally been concentrated in computer-numerically-controlled (CNC) wood working machinery. CNC equipment allows operators to input complex, sequential commands to a computer which instructs the production machinery on how to cut, rout, carve, or sand different furniture parts. Before the introduction of CNC machinery, production line changes had to be made by hand. Increased automation allows U.S. producers to lower their manufacturing costs because production lines can be retooled more quickly and less expensively.

Bassett Furniture's introduction of the highly successful "American Journey" furniture line in the mid-1990s provides an example of how CNC machinery can greatly assist in the creation of a new furniture line. The design of American Journey furniture originated in a variety of architectural solutions (the door of the china cabinet was modeled after a front door used in a 19th century home in Georgia, the latch was copied from those used on wrought iron gates). According to Bassett officials, the ability to achieve such new designs with cost-efficient retooling of production lines using CNC equipment enabled the company to venture from the traditional English colonial furniture styles that dominate U.S. showrooms. At present, Bassett is focusing its investments on significantly improving the durability of wood finishes.²³

Distribution

Household furniture is typically distributed through three retail channels: (1) gallery networks, (2) specialty stores, and (3) full-line furniture stores.²⁴ Household furniture

²² For a discussion of furniture production processes and EPA environmental requirements see "Profile of Wood Furniture and Fixtures Industries," found at Internet address <http://es.epa.gov/oeca/sector/index.htm/#wood>.

²³ Bassett Furniture officials interviewed by USITC staff, Oct. 1998 and Feb. 2000.

²⁴ Gallery networks are often dedicated to a single manufacturer's merchandise (e.g., Ethan Allen Galleries and La-Z-Boy Showcase Shoppes). Specialty stores focus on specific product categories, styles, or market segments (for example, Pier 1 Imports and Ikea). Full-line furniture
(continued...)

producers also sell directly to contract markets such as hotels, hospitals, and universities. The contract market and the consumer market differ in that contract buyers place much larger orders, and the furniture is more durable than that manufactured for residential use. For example, hotel furniture is typically finished with high pressure laminates which resist staining. These laminates last longer than the high gloss wood veneers that are used for residential furniture.

Furniture distribution is expected to become more efficient with the increasing use of electronic data interchange (EDI), video/computer catalogs, and the Internet. EDI systems, for example, electronically link retailers to the account receivables of their manufacturers, enabling electronic transactions and shipment verification to be completed in less than one day. In contrast, it often takes 2 weeks to complete a comparable paper transaction. EDI also reduces costly paperwork and overhead billing expenses. Video catalogs give a visual presentation of how different pieces of furniture may best fit into a room setting. Access to these catalogs is mostly limited to in-store use. EDI and video catalogs are currently being adapted to a web format.

Most furniture manufacturers were initially opposed to marketing over the Internet because it competed with established retail relationships.²⁵ However, market forces have driven manufacturers to establish websites in order to avoid losing business to competing virtual retailers. Ethan Allen Interior encourages the use of e-commerce by their gallery owners. Resistance from Ethan Allen's independent licensees is mitigated by allocating licensees a portion of the profit of each online sale.²⁶

The Internet is expected to become a significant channel of distribution for furniture.²⁷ Analysts predict that about 9 percent of household goods (including furniture) will be sold online by 2003, up from less than two percent in 1999.²⁸ Furniture purchases are particularly well suited to e-commerce because the Internet reduces the amount of time and confusion associated with viewing showrooms, comparing prices, and selecting fabrics.²⁹ At present there are three major e-commerce sites: (1) GoodHome.com, (2) HomePortfolio.com, and (3) E-mattress.com. The market was re-aligned when Living.com, and Furniture.com filed for Chapter 7 bankruptcy liquidation in 2000.

²⁴ (...continued)

stores are independently owned, represent a number of different furniture producers, and sell a full line of furniture products (e.g., Levitz and Marlo).

²⁵ Staff interview with Dr. Stefan Wille, Aktrin-Furniture Information Center, Oakville, ON, Sept. 1999.

²⁶ Neuborne, "The Net is Knocking".

²⁷ Staff interview with Dr. Stefan Wille, Aktrin Furniture Information Center, Quebec, Canada, (*aktrin@aktrin.com*), Jan. 27, 2000.

²⁸ Ellen Neuborne, "The Net is Knocking Furniture Sellers Out of Their Rockers,"

Businessweek Online: Business Week ebiz, found at Internet address

<http://www.businessweek.com/cgi-bin/ebiz/ebiz>, retrieved Jan. 27, 1999.

²⁹ Ibid.

Environmental and Regulatory Issues

The Consumer Product Safety Commission (CPSC) is in the process of issuing a flammability rule specifically for the fabrics used in upholstered furniture. The rule will be issued after scientists can evaluate the toxicity of the fire-retardant chemicals that would be used and the adequacy of smoke detectors in providing early warnings on house fires.³⁰ The industry has focused on reducing the risk of upholstery fires from both small open flames (candles, lighters, and matches) and cigarette ignition, and has complied with fabric safety standards issued by the American Society for Testing and Materials. The CPSC has also recently issued a safety standard to prevent infants from becoming entangled in the rails of children's bunk beds. The proposal requires that the gap between the top edge of the mattress and the lowest bed rail, and the gap between consecutive bed rails, be no more than 3.5 inches.³¹ The furniture industry had initiated voluntary standards for bunk beds and supports the CPSC efforts to improve product safety.³²

Office Furniture³³

Steelcase, Herman Miller, and HON industries, the three largest manufacturers accounted for more than 50 percent of U.S. office furniture production in 1999 (table 6). Large producers dominate the market because the ability to compete in the office furniture industry is characterized by the achievement of significant economies of scale.

According to industry officials, price is the principal factor of competition in the office furniture industry as the product lines offered by different producers are fairly homogenous because of the conservative design influences affecting the market. Fewer styles allow longer production runs than can be achieved by producers of household furniture. In addition, office furniture is made of materials (metal or plastics) that lend themselves to automated production. These economies of scale conditions limit market entry and strongly favor firms with access to significant amounts of investment capital.

³⁰ Consumer Product Safety Commission, "Flame Retardant Chemicals That May Be Suitable for Use in Upholstered Furniture," Notice of public hearing May 5-6, 1998, *Federal Register*: Mar. 17, 1998 (Volume 63, Number 51), pp. 13017-13019.

³¹ Consumer Product Safety Commission, "Safety Standard for Bunk Beds-Final Rule," *Federal Register*: Dec. 22, 1999 (Volume 64, Number 245), pp. 71887-71915, 16 *CFR* Parts 1213, 1500, and 1513.

³² USITC staff interview with Andy Counts, Vice President of Environmental and Technical Affairs, American Furniture Manufacturers, Sept. 2000.

³³ Office furniture includes desks, seating, bookcases, files, partitions, shelving, storage racks, and commercial fixtures, such as bank counters, retail display shelves, and reception areas.

Table 6
Office furniture: Top North American manufacturers, by revenues, 1999

Manufacturer and U.S. headquarters	Type/ country of ownership	Revenues 1999 <i>Million dollars</i>	Divisions	Foreign Operations	
				Location	Type of arrangement ¹
Steelcase, Inc. (Grand Rapids, MI)	Public/ United States	3,300	Brayton International, Inc., Design Tex Fabrics, Inc., Office Details, Inc., Metropolitan Furniture Corporation, Revest, Inc., Turnstone, Inc., Vecta Division, Wigand Corporation, Steelcase Strafor S.A	Canada	Subsidiary
				Mexico	Subsidiary
				Brazil	Subsidiary
				Germany	Subsidiary
				France	Joint venture
				United Kingdom	Subsidiary
				Portugal	Subsidiary
				Spain	Subsidiary
				Morocco	Subsidiary
				Saudi Arabia	Joint venture
Thailand	Licensee				
Herman Miller Inc. (Zeeland, MI)	Public/ United States	1,800	Miller SQA, Cortz, Meridan, Milcare, Miltech	Canada	Subsidiary
				United Kingdom	Subsidiary
				France	Subsidiary
				Netherlands	Subsidiary
				Germany	Subsidiary
				Japan	Subsidiary
				Australia	Subsidiary
Mexico	Subsidiary				
HON Industries (Muscatine, IA)	Public/ United States	1,790	Gunlocke Company, Hon Export, Ltd., BPI, Inc. (including Panel Concepts) Hearth Technologies, Inc. Holga, Inc., The Hon Company (including Allsteel and Bevis)	Canada	Subsidiary
				Mexico	Subsidiary
Haworth, Inc. (Holland, MI)	Private/ United States	1,580	Comforto, Ordo SA, Castelli, Mobilier Int'l, Cortal, Seldex	Canada	Subsidiary
				Germany	Subsidiary
				Italy	Subsidiary
				France	Subsidiary
				Portugal	Subsidiary
				Thailand	Joint venture
				Japan	Licensee
				Australia	Subsidiary
				Malaysia	Subsidiary
				Hong Kong	Subsidiary
				China	Subsidiary
				Singapore	Subsidiary
				Brazil	Subsidiary
Taiwan	Joint venture				

See footnote at end of table.

Table 6—Continued

Office furniture: Top North American manufacturers, by revenues, 1999

Manufacturer and U.S. headquarters	Type/ Country of ownership	Revenues in 1999 <i>Million dollars</i>	Divisions	Foreign Operations	
				Location	Type of arrangement ¹
Knoll Group (East Greenville, PA)	Public/ United States	960	Knoll Studio, Knoll Textiles, Knoll Extra, Spinneybeck	Italy	Subsidiary
				Japan	Licensee & Joint venture
				Argentina Colombia	Licensee
Global Group (Downsview, Ontario)	Private/ Canada	850	Snyder, Forminco, Global Contract, Leif Jacobsen, Global Industries	Canada	Subsidiary
				United Kingdom	Subsidiary
				France	Subsidiary
				Australia	Subsidiary
				Brazil	Joint venture
				Malaysia	Subsidiary
Israel	Subsidiary				
Kimball International (Jasper, IN)	Public/ United States	771	Kimball Office Furniture, National Office Furniture, Harpers, Inc.	United Kingdom	Subsidiary
Teknion, Corp. Downsview, ONT	Public/ Canada	629	None	Malaysia	Subsidiary
				United States	Subsidiary
KI (Kruegar Int'l) (Green Bay, WI)	Private/ United States	600	None	Canada	Subsidiary
				EU	Subsidiary
Virco Manufacturing, Inc. (Torrence, CA)	Public/ United States	267	None	Mexico	Subsidiary
				Mexico	Agent
				S. America	Agent
				Australia	Agent
				New Zealand	Agent
Australia	Agent				

¹ Subsidiary and licensee arrangements are generally for production operations.

Source: "The Contract Furniture Industry: the Big Get Bigger," *Wood & Wood Products*, May 2000, p. 47; and telephone contacts in 1999 with officials of above companies.

Office furniture producers must also be able to support nationwide service operations. Strong service operations are reported by trade sources to be a significant competitive factor because reliable delivery dates, repairs, product modifications, and timely installation are crucial to meeting client needs. Major office furniture producers concentrate their production in the mid- to upper-priced modular systems furniture. However, a number of major manufacturers (Steelcase, Haworth, Kimball, and Geiger) have formally entered the home office market. Rising costs for office space and corporate downsizing, along with the development of computer technology for the Internet and telecommuting, have fueled the steady growth of the home office market, which is expected to exceed \$4 billion in the year 2000.³⁴

All of the top 10 manufacturers have established foreign operations, primarily to reduce transportation costs and delivery times, and to direct effective marketing strategies. Most of these foreign operations are located in countries with well developed markets for office furniture, such as the EU and Canada. The principal foreign suppliers of office furniture in the U.S. market are manufacturers located in Canada, some of which are U.S. subsidiary operations.

Steelcase, Herman Miller, Haworth, the Global Group, and Teknion have operations in Asia to both supply the Asian market from a regional manufacturing base and produce such labor intensive products as seating. Steelcase expanded its foreign operations in the East Asian market in 1994 through a licensing agreement with Modernform Group Company Ltd., a leading furniture manufacturer in Thailand. Under terms of the agreement, products such as seating, desks, and panels produced by Steelcase USA and Steelcase Strafor EU will be manufactured in Thailand. The Steelcase/Modernform venture expects to export to Japan and eventually to the rest of Southeast Asia.

Production Technology

Production technology for office furniture has focused on lowering manufacturing costs. Lower production costs have been achieved with investments in Materials Resource Planning (MRP), Flexible Manufacturing Systems (FMS), and CNC Equipment.³⁵ MRP is a software program that forecasts the effects of changes in production planning variables (such as product design, inventory, and new orders) on a company's production planning (materials input and labor, for example).³⁶ An FMS enables producers to efficiently adjust their production line to these variables through the use of CNC machine tools served by automated material handling devices all linked to and controlled by a central computer.

The layout of an FMS production line allows parts to take a variety of paths, enabling the system to accommodate different variations and lot sizes of the product without retooling,

³⁴ Vicky Jarrett, "E-Commerce Panel: Proactive Strategy Key to Winning on Web," *SoHo Today, Special Supplement to Furniture Today*, Nov. 1999, p.14.

³⁵ "From Manufacturing to the Supply Chain," *Modern Materials Handling*, vol. 54, No. 13 (Nov. 1999), p. W12.

³⁶ A number of companies have minimized the number of variables that have to be inputted into their MRP system by manufacturing only to order and using just-in-time inventory procedures.

as compared with the traditional forms of automation where parts follow a fixed path through the production line. Since the production machinery and material handling devices are computer controlled and reprogrammable, set-up costs are significantly reduced.

Production technology has also assisted in the cost efficient development of ergonomic furniture. Computer-aided design and manufacturing (CAD/CAM) allow manufacturers to provide a highly- contoured and adjustable product. Ergonomic furniture has a more complex design than traditional office furniture because it must be contoured to provide more body support and adjust to different users.

Distribution

The principal channels of distribution for office furniture are dealerships, wholesalers, catalogs, and discount office-furniture outlets. Dealerships serve large corporations, institutions, and federal, state, and local governments. These end users require a high level of customer service as furniture purchased by these organizations must be installed and/or modified to fit varying office spaces. Dealers generally represent one manufacturer. Wholesalers often serve as middle men for discount outlets and catalog operations.³⁷

Discount office furniture outlets are one of the fastest growing channels of distribution. They primarily serve such budget conscious markets as medium and small-sized businesses and home offices. Growth in these segments has been fueled by corporate and government downsizing and the concurrent strong growth in new businesses.

Motor Vehicle Seats

Although automobile seat companies do not make other types of furniture and are not considered part of the traditional furniture industry, by international agreement (Customs Cooperation Council), seats used in vehicles (including cars, buses, trucks, airplanes, boats, and trains) are classified as furniture for the purposes of trade statistics.³⁸ As such, automobile seats accounted for the greatest share of U.S. exports of furniture in 1999, and were the second largest product category for imports. The cross-border integration of North American vehicle manufacturing, and continued investment in U.S. assembly plants by Japanese and German vehicle producers accounted for the vast majority of trade in automobile seats.

The seat-producing units of the motor vehicles industry's Big Three have been spun off to form independent companies that are able to introduce changes in product design, engineering, and manufacturing methods more quickly than companies whose principal

³⁷ Firms operating in each of these channels of distribution have established websites on the Internet (see section on household furniture distribution for a more detailed discussion of the Internet).

³⁸ See World Customs Organization, *Explanatory Notes of the Harmonized Commodity Description and Coding System*, Section XX, Chapter 94--Miscellaneous Manufactured Articles, Furniture, Volume V, p. 1697.

focus is vehicle assembly.³⁹ Two manufacturers, Johnson Controls and Lear Seating (a division of Lear Corporation), reportedly accounted for over one-half of North American automobile seat production in 1999 (table 7).⁴⁰ Magna International (Magna) is the third largest North American manufacturer. All of the leading U.S. producers of automobile seats have assembly plants in Canada and Mexico.⁴¹ Plants in the United States and Canada tend to assemble relatively sophisticated, motorized seats for vehicles assembled by all North American trade partners. Plants in Mexico assemble both finished seats and seat covers. The seat covers alone reportedly account for close to one-half of the total cost of producing a finished seat, attributable to labor-intensive sewing operations. Seat covers sewn in Mexico are shipped to seat assembly plants in the United States and Canada or are used in the assembly of finished seats in Mexico. The finished seats are, in turn, shipped to automobile assembly plants in the United States and Canada or incorporated into vehicles assembled in Mexico.

Several Japanese producers have formed joint ventures with U.S. producers to assemble seats in the United States, using a combination of imported and domestically-produced components (table 8). These joint ventures supply seats to U.S. manufacturing subsidiaries of Japanese auto companies. Major Japanese automobile seat manufacturers include Tachi-S Company, Ikeda Bussan, and NHK Spring.

U.S. automobile seat producers contract out the production of key components and subassemblies, such as motors, metal frames, reclining mechanisms, foam cushioning, and seat covers. Seat assembly is typically completed near the automobile assembly facilities. Assembly involves attaching a foam seat cushion to a metal frame; the seat cover is then placed over the seat assembly. Materials for the seat covers are cut by automated laser-cutters. In contrast, the sewing machines used to stitch the covers are operated by hand. Completed automobile seats are typically delivered to vehicle assembly operations on a just-in-time (JIT) delivery schedule.

Production Technology

Currently, automobile seats are one of a series of independent installations for a vehicle's interior. Industry analysts predict that over the next five years, automobile interior installations will be consolidated from dozens of individual installations to six integrated "modular assemblies" that mesh together as one piece.⁴² The likely six integrated assemblies are (1) front bucket seats, (2) rear bench seat, (3) dash, (4) door panels, (5) headliner, and (6) trunk liner. The electrical work for the six components will be completed before final

³⁹ Telephone interviews with industry officials of Lear, Magna, and Johnson Controls, May 1999. Firms that make automobile seats generally make other types of auto parts as well.

⁴⁰ Based on USITC staff telephone interviews with company officials at Johnson Controls, Lear Seating, Magna, Findley, Seton Leather, and TS Tech, Nov. 1999.

⁴¹ Canadian-owned Magna International purchased Douglas Lomason, the fourth-largest U.S. motor-vehicle seat manufacturer, in Oct. 1996. For a complete listing of U.S.- and foreign-based motor-vehicle, seat manufacturers operating in the United States, see "25th Annual Source Guide," *Automobile Industry*, June 1999, p. 79.

⁴² Joseph Pryweller, "Prince Automotive Offering One-Piece Interior Module," *Automotive News*, Jan. 12, 1998, p. 26VVVV. 20

Table 7**Motor vehicle seats: Leading producers in North America, by revenue, 1998**

Company	Ownership	Revenues (million dollars)	Foreign assembly locations		Principal customers
Johnson Controls (Milwaukee, WI)	Public	¹ []	Canada Mexico Brazil Australia South Africa	Belgium France Germany Italy Netherlands Portugal Spain United Kingdom Czech Republic	General Motors Ford DaimlerChrysler AG BMW Mercedes-Benz Volkswagen Honda Nissan Toyota
Lear (South Field, MI)	Private	¹ []	Canada Mexico Argentina Brazil Venezuela Turkey Russia China Thailand India Australia South Africa	Austria Belgium France Germany Italy Portugal Spain Sweden United Kingdom Czech Republic Hungary Poland	DaimlerChrysler AG Ford General Motors BMW Fiat Volkswagen/Audi Volvo Mazda
Magna International (Aurora, ON)	Private	¹ []	EU United States Mexico Brazil Korea China		DaimlerChrysler AG Ford General Motors VW Group BMW/Rover Mercedes

¹ Confidential data.

Source: USITC staff telephone interviews with industry representatives, Nov. 1999.

Table 8**Motor vehicle seats: North American-based joint ventures between U.S. and foreign manufacturers**

Company	Foreign partner	Location	Operation
Johnson Controls (Milwaukee, WI)	Tachi-S, Co. (Japan)	United States	Seat covers
	-Technotrim, Inc. -Hyperion, Co., Setex, Inc.		Seats
	Recaro (German)	Mexico United States	Seats Seat covers
Lear Seating (South Field, MI)	NHK Spring (Japan)	Canada	Seats
		United States	Seats
Magna International (Aurora, ON)	Grammar (German)	Canada	Seats
		EU	Seats

Source: USITC staff telephone interviews with industry representatives, Nov. 1999.

installation. Integrated interior installations by independent contractors would enable the Big 3 automakers to focus attention on vehicle assembly and contracting operations. Industry analysts report that this is part of an ongoing trend that has led to greater specialization of motor vehicle production. The trend began in the 1980s and has continually narrowed the manufacturing role of the Big 3 automakers. One source notes that “studies have shown that integrated units developed by suppliers can yield a 10 percent weight reduction, use 20 percent fewer parts, lessen warranty costs by as much as 55 percent, and offer double digit cost savings.”⁴³

Industry sources predict that major motor-vehicle seat manufacturers, including Lear, Johnson Controls, and Magna will contract out increasing shares of their seat production to companies that specialize in seat component manufacture, enabling these firms to place added focus on the research, design, and quality control programs needed to develop car interior modules that combine “in-sync” parts made by a variety of companies.⁴⁴ Specific changes in motor-vehicle seat design have centered on enhanced comfort for the driver and passenger, improved safety, and reduced production costs. “Smart” airbags are being designed to respond to sensors that determine the position and weight of the occupant. Other technical advances being sought are improved thermal attributes for seat cushions. Foam, the current universal seat padding, is cold in the winter and stores heat in the summer. Seat producers also are conducting bio-mechanical research to discover what causes leg stiffness, back aches, and fatigue associated with long distance driving.

U.S. MARKET

Consumer Characteristics and Factors Affecting Demand

Heads of households account for the bulk of household furniture purchases, with age a particularly important indicator for furniture consumers because it marks the life stages that trigger furniture purchases: having children, buying homes, and increased earnings.⁴⁵ Consumer purchases of household furniture are determined by expectations of future earnings and competing expenses.⁴⁶

⁴³ Ibid.

⁴⁴ Staff interview with various industry officials.

⁴⁵ Joe Logan, Director of Financial and Economic Research, American Furniture Manufacturers Association, more broadly identifies the significant indicators of demand for household furniture as gross domestic product; unemployment rate; personal disposable income; interest rates as measured by Moody’s AAA Corporate Bond Rate, and the 6- month Commercial Paper Rate, and housing (measured by residential construction, housing starts, and housing resales). Interview by USITC staff, Oct. 1999.

⁴⁶ Consumer confidence in future earnings is a function of employment rates, growth in personal disposable incomes, and strength of the economy. Competing expenses are costs incurred for housing, transportation, medical treatment, and education.

The major consumers of office furniture are corporations, small businesses, and federal, state, and local governments. Private sector purchases of office furniture are primarily influenced by economic growth and the creation of new businesses.⁴⁷ Public sector demand is a function of levels of government spending and services.

Demand for motor vehicle seats is linked to motor vehicle sales, which in the United States are dominated by cyclical macroeconomic trends in the U.S. economy. Auto sales are highly representative of the health of the U.S. economy and are considered to be an important leading economic indicator. Typically, sales downturns follow several years of sales growth although low rates of unemployment, higher incomes, and discounts on many automobiles have encouraged sustained demand for motor vehicles and subsequently motor vehicle seats during 1995-99.⁴⁸

Consumption

The United States was one of the world's largest markets for furniture and selected furnishings in 1999.⁴⁹ U.S. consumption of furniture (including motor vehicles seats) rose by \$24.7 billion during 1995-99, to \$85.3 billion or at an average annual rate of 9 percent (table 9). Household furniture accounted for the bulk of U.S. consumption in 1999 (tables 10-12), followed by office furniture (figure 3). The average annual rate of increase in consumption for the major product categories during 1995-1999 was 14 percent for motor vehicle seats to \$8.6 billion; and 9 percent for both household and office furniture, which rose to \$46.7 billion and \$14.0 billion, respectively.

Although the ratio of imports to consumption for all furniture rose from 13 percent in 1995 to 19 percent in 1999, domestic shipments continued to supply most of the U.S. furniture market. The increased share of consumption garnered by imports, although largely attributable to trends in household and office furniture, also reflects the cross-border integration of motor vehicle seat production in North America.⁵⁰ However, the much larger

⁴⁷ According to Tom Reardon, Executive Director, Business and Institutional Furniture Manufacturers Association, significant indicators of growth reported in data published by the Department of Commerce are: (1) nonresidential fixed investment, (2) office building construction, (3) nonresidential structure investment, (4) corporate cash flow, (5) white collar employment, and (6) office vacancy rates. Interview by USITC staff, Nov. 5, 1999.

⁴⁸ Gregory L. White and Sholnn Freeman, "New-Car Sales Remained Strong in March," *Wall Street Journal*, Apr. 4, 2000, found at Internet address <http://library.northlight.com>, retrieved Aug. 14, 2000.

⁴⁹ United Nations data provide that totaled world imports of furniture and selected furnishing (SITC 82) were \$49 billion in 1998 (latest data available), with the United States accounting for an estimated one-fifth of world imports of furniture.

⁵⁰ The trends in U.S. imports of "all other furniture" are consistent with those for household and office furniture. Other furniture are items that cannot be classified in a specific category and
(continued...)

value of imports of household furniture dominates the increased market penetration by imports. Canadian furniture producers have become more competitive in these two U.S. markets. East Asian household furniture producers, particularly China, expanded their U.S. market share by significantly improving the quality of their woodworking and finishing operations.⁵¹

Table 9
Furniture:¹ U.S. producers' shipments, exports of domestic merchandise, imports for consumption, and apparent consumption, 1995-99

Year	Producers' shipments	Exports	Imports	Apparent consumption	Ratio of imports to consumption
					Percent
<i>Million dollars</i>					
1995	55,700	3,223	8,174	60,651	13
1996	57,900	3,440	9,234	63,694	14
1997	62,550	4,063	10,930	69,417	16
1998	68,250	4,514	13,026	76,762	17
1999	74,000	4,475	15,799	85,324	19

¹ Furniture primarily includes: household, office, institutional, and hospital furniture; furniture fixtures such as retail display cases, kitchen cabinets, restaurant booths, and stadium and theater seating; motor vehicle seats such as automotive and airplane seats; and mattresses.

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

Table 10
Household furniture: U.S. producers' shipments, exports of domestic merchandise, imports for consumption, and apparent consumption 1995-99

Year	Producers' shipments	Exports	Imports	Apparent consumption	Ratio of imports to consumption
					Percent
<i>Million dollars</i>					
1995	29,250	561	4,604	33,293	14
1996	30,140	597	5,180	34,723	15
1997	31,730	696	6,141	37,175	17
1998	34,700	773	7,347	41,274	17
1999	38,400	782	9,128	46,746	20

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

⁵⁰ (...continued)

are purchased to complement office or household furniture. Examples of "other" furniture include end tables, book cases, and book stands.

⁵¹ USITC staff interviews with various industry sources.

Table 11
Office furniture: U.S. producers' shipments, exports of domestic merchandise, imports for consumption, and apparent consumption, 1995-99

Year	Producers' shipments	Exports	Imports	Apparent consumption	Ratio of imports to consumption
					Percent
<i>Million dollars</i>					
1995	9,435	357	893	9,971	9
1996	10,040	371	1,084	10,753	10
1997	11,460	461	1,380	12,379	11
1998	12,350	512	1,652	13,490	12
1999	12,500	506	1,956	13,950	14

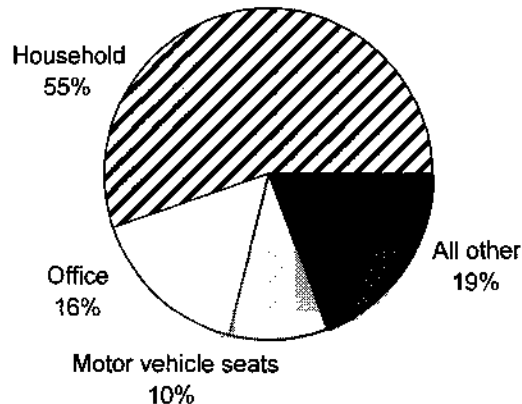
Source: Compiled by the Commission from official statistics of the U.S. Department of Commerce.

Table 12
Motor vehicle seats: U.S. producers' shipments, exports of domestic merchandise, imports for consumption, and apparent consumption, 1995-99

Year	Producers' shipments	Exports	Imports	Apparent consumption	Ratio of imports to consumption
					Percent
<i>Million dollars</i>					
1995	4,700	1,097	1,724	5,007	34
1996	4,900	1,203	1,946	5,383	36
1997	5,862	1,452	2,185	6,173	35
1998	6,540	1,748	2,451	6,883	36
1999	7,520	1,711	2,772	8,581	32

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

Figure 3
Furniture: Share of U.S. consumption, by product category, 1999



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

Motor vehicle seats accounted for the highest ratio of imports to consumption (32 percent) during 1995-99, reflecting rationalization of production and the integration of the North American motor vehicle industry.⁵² Trade with Canada and Mexico accounted for 87 percent of U.S. exports of motor vehicle seats and parts in 1999 and 91 percent of U.S. imports of such seating. North American trade consists of: (1) U.S. exports of parts of motor vehicle seats to affiliated seat assembly plants in Canada and Mexico; (2) exports of finished seats to DaimlerChrysler AG, Ford, and General Motors vehicle assembly plants in Canada and Mexico; (3) imports of seat covers from affiliated sewing operations in Mexico; and (4) imports of finished seats from assembly plants in Canada and Mexico that are affiliated with U.S. seat producers.⁵³

Production

U.S. producers' shipments of furniture rose at an average annual rate of 7 percent during 1995-99, to \$74.0 billion. Household and office furniture accounted for the bulk of the growth in production. U.S. shipments of both household and office furniture grew at an average annual rate of 7 percent during 1995-99 to \$38.4 billion and \$12.5 billion, respectively.

U.S. producers' shipments of motor vehicle seats increased at an average annual rate of 14 percent during 1995-99 to \$7.5 billion. GM, Ford, and DaimlerChrysler AG accounted for 77 percent of the North American-built cars and trucks that had front seat installations in 1998.⁵⁴ U.S.-based subsidiaries of Honda and Toyota accounted for 5 percent and 4 percent, respectively, of all such seat installations in 1998.⁵⁵ Lear supplied seating to all of the Big Three car manufacturers, the U.S. subsidiaries of Mitsubishi and Subaru, and the U.S.-Japanese joint ventures of CAMI and AutoAlliance. Johnson Controls supplied the Big Three, the U.S. operations of Nissan, Toyota, and Honda, and the U.S.-Japanese joint venture NUMMI.

⁵² For more detailed information on the use of production sharing in the North American motor-vehicle seat industry, see U.S. International Trade Commission, *Production Sharing: Use of U.S. Components and Materials in Foreign Assembly Operations 1995-1998*, USITC publication 3265, Dec. 1999.

⁵³ USITC staff interviews with industry officials at Lear Seating, Johnson Controls, and Magna International.

⁵⁴ Automotive News, *Market Data Book-1998 Data on Disc*, Front Seat Installations.

⁵⁵ Transplant automakers in North America and U.S.-foreign joint ventures include AutoAlliance (Ford and Mazda), BMW, CAMI (GM and Suzuki), Honda DaimlerChrysler, Mitsubishi (makes Chrysler vehicles), Nissan, NUMMI (GM and Toyota), Subaru-Isuzu, Toyota, VW (Mexico), Volvo (Canada), and Nissan-Renault (Mexico). 26

U.S. TRADE

Overview

The United States had a significant deficit with all of its leading trade partners (Canada, China, Mexico, Italy, and Taiwan) in the furniture sector during 1995-99. Demand for imported furniture is stronger and more sustained in the United States than in other industrialized countries,⁵⁶ reflecting higher growth rates in the U.S. economy.⁵⁷ Although U.S. firms are considered to be efficient, competitively-priced producers of high quality furniture, transportation costs of exporting such fully assembled furniture has limited U.S. producers' success in foreign markets. As a result, leading U.S. household or office furniture producers, as well as U.S. producers of kitchen cabinets and mattresses, tend to supply non-NAFTA markets from regional manufacturing bases instead of exporting from the United States.

U.S. furniture exports consist mostly of fully-assembled household furniture shipped to Canada, and motor-vehicle seat parts supplied to assembly plants in Canada and Mexico. Imports, however, chiefly consist of: (1) fully-assembled wood household furniture from Canada (where producers benefit from proximity and relatively inexpensive lumber resources in both Canada and the United States); (2) wood household furniture and rattan furniture from countries in East Asia with related natural resources and low labor costs; (3) motor-vehicle seats from U.S.-owned assembly plants in Canada and Mexico; and (4) top-quality, fashion-oriented furniture from Italy. The U.S. merchandise trade deficit in furniture more than doubled during 1995-1999 from \$5.0 billion to \$11.3 billion. During this period, Canada, China, and Mexico accounted for the most significant expansions in the deficit.

U.S. Imports

Principal Suppliers and Import Levels

U.S. imports of all types of furniture rose at an average annual rate of 18 percent during 1995-99 to \$15.8 billion (table 13). Canada was the leading source of U.S. imports in 1999 (27 percent of the total), followed by China (19 percent) and Mexico (18 percent). Collectively, the East Asian countries of Taiwan, Malaysia, Indonesia, the Philippines, and

⁵⁶ According to United Nations trade data, the United States accounted for an estimated 28 percent of world imports of furniture in 1998 (latest data available), followed by the EU with an estimated 16 percent. Found at Internet address <http://dataweb.usitc.gov>, retrieved May 1, 2000.

⁵⁷ The U.S. real gross domestic product (GDP) rose by slightly over 4 percent in both 1998 and 1999. By comparison, the real GDP in Japan declined by 2.5 percent in 1998 and rose by just 0.3 percent in 1999. Growth in the real GDP in European Union was 2.7 percent in 1998 and 2.3 percent in 1999. International Monetary Fund (IMF), *World Economic Outlook 2000*, (Washington, DC: IMF, Apr. 2000), p.10, found at Internet address <http://www.imf.org>, retrieved Apr. 18, 2000.

Thailand accounted for another 16 percent of U.S. imports. China has been the fastest growing principal source of U.S. furniture imports, increasing slightly more than two-fold during 1995-99. Italy was the leading European source of U.S. imports (7 percent).

The product mix supplied by Canada, Mexico, China, and Italy differed significantly in 1999 (figure 4). U.S. imports from Canada were fairly evenly split among household, office, and motor-vehicle furniture, whereas those from Mexico were principally motor-vehicle seats. U.S. imports from China were mostly of household furniture. Principal product categories of U.S. imports from China were RTA furniture and moderately-sized, fully-assembled household furniture (e.g., dinette sets, occasional furniture—secretaries, end tables, coffee tables) that can be cost-efficiently shipped because it is compact. High-quality wood and upholstered household furniture accounted for the bulk of imports from Italy.

U.S. imports of household furniture grew at an average annual rate of 19 percent during 1995-99, to \$9.1 billion, while imports of office furniture rose at an average annual rate of 22 percent to \$2.0 billion. U.S. imports of motor vehicle seats and parts increased at an average annual rate of 13 percent to \$2.8 billion, as both importers and U.S. producers benefitted from the expansion in the U.S. economy.

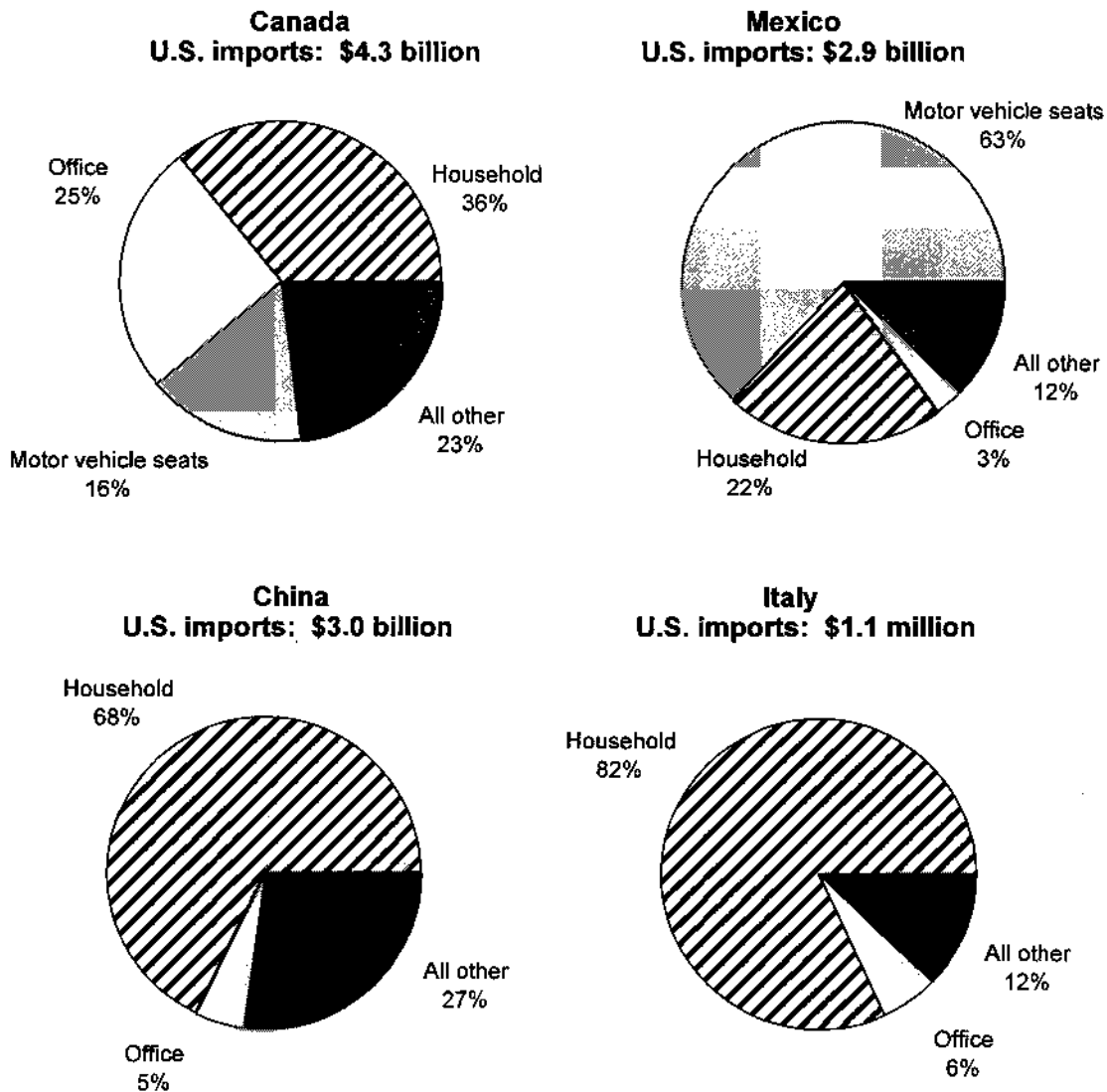
Table 13

U.S. furniture imports: China sets pace for rapid growth among leading suppliers, 1995-99

Country	1995	1996	1997	1998	1999	Change 1999 from 1995	
	<i>Million dollars</i>					<i>Absolute</i>	<i>Percent</i>
Canada	2,398	2,871	3,422	3,951	4,306	1,908	80
China	739	957	1,398	2,018	3,022	2,283	309
Mexico	1,168	1,490	1,864	2,239	2,882	1,714	147
Italy	634	678	769	898	1,078	444	70
Taiwan	1,054	973	932	975	1,020	-34	-3
Malaysia	326	396	414	406	469	143	44
Indonesia	229	236	280	346	436	207	90
United Kingdom	146	167	204	276	331	185	127
Philippines	167	169	197	227	263	96	57
Thailand	173	174	179	211	267	94	54
All other	1,140	1,123	1,271	1,479	1,725	585	51
Total	8,174	9,234	10,930	13,026	15,799	7,625	93

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

Figure 4
Furniture imports: Product mix differs significantly among leading suppliers to the U.S. market, in 1999



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

China and Canada were the principal sources of U.S. imports of household furniture during 1995-99, as China's shipments to the United States nearly quadrupled during 1995-99 (from \$553 million to \$2.1 billion) while such trade with Canada more than doubled (rising by \$860 million to \$1.5 billion). Industry sources state that the sharp import increase from China reflects the growing acceptance in the U.S. market of RTA furniture and successful efforts in China to improve the quality of its manufacturers' products. Imports from other suppliers also exhibited strong growth during 1995-99 as imports rose steadily from Italy, Mexico, Malaysia, and Indonesia. Taiwan was the only significant supplier of household furniture to experience reduced U.S. imports during 1995-99, which fell by \$94 million

(13 percent) to \$627 million. Taiwan's share of U.S. imports of household furniture also fell from 17 percent in 1995 to 8 percent in 1999. Rising labor costs in Taiwan have resulted in furniture producers in Taiwan becoming less cost-competitive with producers in China. Taiwan's furniture producers have relocated a significant portion of their furniture operations to China.

Canada maintained its dominance among foreign suppliers of office furniture, accounting for 55 percent (\$1.1 billion) of total U.S. imports in 1999. China and Taiwan were the next largest sources of imports, respectively accounting for \$229 million and \$129 million in 1999. U.S. imports from Canada were principally of systems furniture, and fully-assembled office furniture such as executive desks, file cabinets, and meeting tables. The production of systems office furniture is highly automated, thereby minimizing the labor cost advantage of East Asian producers. High transportation costs for large, fully assembled office furniture provides Canada with a significant competitive advantage in the U.S. market over more distant producers in Taiwan and China.

Mexico and Canada accounted for 91 percent of total U.S. imports of motor vehicle seats in 1999. All U.S. seat producers have production/assembly facilities in Canada and Mexico which rely extensively on U.S. produced parts and materials. Imports of motor vehicle seats from Mexico rose by \$1.0 billion during 1995-99, to \$1.8 billion, while imports from Canada (chiefly motorized seats) fell by 9 percent (\$65 million) to \$698 million, reflecting the expanding role of Mexican manufacturers in the labor intensive assembly of motor vehicle seats.

U.S. Trade Measures

Tariff measures

In the Uruguay Round of multilateral trade negotiations, major trading countries agreed to reduce the tariffs to zero on most furniture and mattress supports as of January 1, 1999 (table 14). The exceptions are tariffs on certain mattresses, which will be reduced through the year 2004.⁵⁸ The 2000 column-1 general rate of duty for mattresses ranged from 3 percent to 6 percent.

All "qualifying" trade in mattresses between the United States, Mexico, and Canada enter duty-free under NAFTA.⁵⁹ NAFTA tariffs on cotton futon mattresses from Mexico were 1.8 percent in 2000. Mattresses receive duty-free treatment under the United States-Israel Free Trade Agreement, the Andean Trade Preference Act, and the Caribbean Basin Economic Recovery Act.

⁵⁸ See appendix E for relevant pages of the President's *Memorandum of December 23, 1994--Acceptance of the WTO Agreement*.

⁵⁹ To qualify for duty-free entry under the NAFTA, articles of furniture must meet one of four tests: furniture must (1) be wholly produced in the NAFTA territory, (2) be produced entirely from North American originating materials, (3) be produced from non-originating material but having gone through a manufacturing process that gave it a qualifying change in tariff classification, or (4) contain the required regional value-content share.

Table 14

Furniture: Harmonized Tariff Schedule subheading; description; U.S. col. 1 rate of duty as of Jan. 1, 2000; U.S. imports, 1999; and U.S. exports, 1999

HTS subheading	Description	Col.-1 rate of duty Jan. 1, 2000		U.S. imports, 1999	U.S. exports, 1999
		General	Special ¹		
—Thousand dollars—					
9401.10.40	Leather upholstered aircraft seats	Free		65,409	106,143
9401.10.80	Aircraft seats other than leather upholstered	Free		186,997	70,762
9401.20.00	Seats for motor vehicles	Free		159,996	155,857
9401.30.40	Swivel seats with variable height adjustment with wooden frames	Free		26,157	3,075
9401.30.80	Swivel seats with variable height adjustment with frames not of wood	Free		467,513	59,504
9401.40.00	Seats other than garden seats or camping equipment, convertible into beds	Free		69,195	12,955
9401.50.00	Seats of cane, osier, bamboo or similar materials	Free		82,439	2,413
9401.61.20	Upholstered chairs with teak frames	Free		8,192	5,621
9401.61.40	Upholstered chairs with frames not of teak	Free		347,186	74,685
9401.61.60	Upholstered seating with wood frames, except chairs	Free		604,635	113,046
9401.69.20	Bent wood seats without upholstery	Free		13,657	777
9401.69.40	Teak chairs without upholstery	Free		32,990	137
9401.69.60	Chairs, without upholstery, with wooden frames, other than of bent wood or teak	Free		583,288	4,421
9401.69.80	Seats without upholstery, with wooden frames, other than chairs and seats of bent wood	Free		112,394	17,577
9401.71.00	Upholstered seats with metal frame	Free		368,049	43,887
9401.79.00	Seats with metal frames without upholstery	Free		728,049	35,217
9401.80.20	Seats of reinforced or laminated plastics	Free		18,509	1,330

See footnote at end of table.

Table 14—Continued

Furniture: Harmonized Tariff Schedule subheading; description; U.S. col. 1 rate of duty as of Jan. 1, 2000; U.S. imports, 1999; and U.S. exports, 1999

HTS subheading	Description	Col.-1 rate of duty as of Jan. 1, 2000		U.S. imports 1999	U.S. exports 1999
		General	Special ¹		
<i>—Thousand dollars—</i>					
9401.80.40	Seats of rubber, unreinforced plastics, or unlaminated plastics	Free		115,088	35,457
9401.80.60	Seats not of wood, metal, rubber, plastics, cane, osier, or bamboo	Free		27,768	7,535
9401.90.10	Parts of seats for motor vehicles	Free		2,588,274	1,818,302
9401.90.15	Parts of bent-wood seats	Free		2,936	2,016
9401.90.25	Seat parts of seats cane, osier, bamboo or similar material	Free		8,007	6,049
9401.90.35	Seat parts of rubber or plastics	Free		64,247	32,259
9401.90.40	Seat parts of wood	Free		101,198	36,291
9401.90.50	Seat parts not of bent-wood; cane; osier; bamboo; rubber; plastics; or wood	Free		365,853	137,100
9402.10.00	Dentists', barbers' or similar chairs and parts thereof	Free		35,124	42,430
9402.90.00	Medical, surgical, dental or veterinary furniture; other than dentists', barbers', or similar chairs and parts thereof	Free		82,341	191,863
9403.10.00	Metal furniture of a kind used in offices, other than seats	Free		462,204	243,307
9403.20.00	Metal furniture other than seats and office furniture	Free		1,474,851	472,585
9403.30.40	Bent-wood office furniture, other than seats	Free		2,504	798
9403.30.80	Wood office furniture, other than bent-wood and seats	Free		547,156	79,019
9403.40.40	Bent-wood kitchen furniture, other than seats	Free		2,071	244
9403.40.60	Wood kitchen furniture for use in motor vehicles, other than seats	Free		133	731
9403.40.90	Wood kitchen furniture, other than bent-wood, motor vehicle, and seats	Free		528,817	48,763

See footnote at end of table.

Table 14—Continued

Furniture: Harmonized Tariff Schedule subheading; description; U.S. col. 1 rate of duty as of Jan. 1, 2000; U.S. imports, 1999; and U.S. exports, 1999

HTS subheading	Description	Col. 1 rate of duty as of Jan. 1, 2000		U.S. imports 1999	U.S. exports 1999
		General	Special ¹		
—Thousand dollars—					
9403.50.40	Bent-wood bedroom furniture, other than seats	Free		3,784	1,061
9403.50.60	Wood bedroom furniture for use in motor vehicles, other than seats	Free		81	1,161
9403.50.90	Wood bedroom furniture excluding bent-wood, motor vehicle, and seats	Free		1,186,802	103,975
9403.60.40	Bent-wood furniture other than office, kitchen, bedroom, or seats	Free		6,107	3,757
9403.60.80	Wood furniture other than office, kitchen, bedroom, seating or bent-wood	Free		2,751,858	371,910
9403.70.40	Reinforced or laminated plastics furniture other than seats	Free		49,478	10,466
9403.70.80	Plastic furniture except seats, other than of reinforced or laminated plastics	Free		170,911	84,685
9403.80.30	Furniture of cane, osier, bamboo or similar material, other than seats	Free		118,421	44,218
9403.80.60	Furniture not of metal, wood, plastic, cane, osier, bamboo or rattan, other than seats	Free		174,759	27,101
9403.90.10	Parts of furniture of a kind used in motor vehicles, other than seat parts	Free		23,318	8,172
9403.90.25	Parts of furniture of cane, osier, bamboo or similar materials, other than seat parts	Free		4,019	6,540
9403.90.40	Parts of furniture of reinforced or laminated plastics, other than seat parts	Free		14,806	4,786
9403.90.50	Parts of furniture of rubber, or plastics other than reinforced or laminated, other than seat parts	Free		29,105	19,144
9403.90.60	Parts of furniture of textile material except cotton, other than seat parts	Free		14,275	15,260
9403.90.70	Parts of furniture of wood, other than seat parts	Free		478,662	83,017

See footnote at end of table.

Table 14—Continued

Furniture and selected furnishings: Harmonized Tariff Schedule subheading; description; U.S. col. 1 rate of duty as of Jan. 1, 2000; U.S. imports, 1999; and U.S. exports, 1999

HTS subheading	Description	Col. 1 rate of duty as of Jan. 1, 2000		U.S. imports 1999	U.S. exports 1999
		General	Special ¹		
—Thousand dollars—					
9403.90.80	Parts of furniture not of cane, osier, bamboo, rubber, plastics, textile material (except cotton), or wood, other than seat parts	Free		433,037	196,202
9404.10.00	Mattress supports	Free		5,552	9,784
9404.21.00	Mattresses of cellular rubber or plastics, whether or not covered	3.0%	Free (A,CA,E, IL,J,MX)	26,643	9,683
9404.29.10	Mattress of cotton	3.0%	Free (A+,CA, E,IL,J) 2.4% (MX)	7,110	4,900
9404.29.90	Mattresses not of cellular rubber or plastics, or cotton	6%	Free (A, CA, E, IL, J MX)	17,156	19,601

¹ Programs under which special tariff treatment may be provided, and the corresponding symbols for such programs as they are indicated in the "special" subcolumns are as follows: Generalized System of Preferences (A); Automotive Products Trade Act (B); Agreement of Trade in Civil Aircraft (C); United States-Canada free-Trade Agreement (CA); Caribbean Basin Economic Recovery Act (E); and United States-Israel Free Trade Area (IL); Andean Trade Preference Act (J); Other goods of Mexico, under the terms of general note 12 (MX).

Source: U.S. exports and imports compiled by the Commission from official statistics of the U.S. Department of Commerce.

Nontariff measures

No known U.S. nontariff trade measures significantly influence trade in the covered products.

U.S. Exports

Principal Markets and Export Levels

U.S. furniture exports rose at an average annual rate of 9 percent during 1995-99, to \$4.5 billion (table 15). Canada⁶⁰ accounted for the bulk of U.S. exports of

⁶⁰ U.S. exports to Canada were estimated to account for 71 percent of world furniture exports to Canada in 1997 according to U.S. & Foreign Commercial Service and the U.S. Department of Commerce (continued)

furniture in 1999, followed by Mexico,⁶¹ and more distantly by the United Kingdom and Japan.⁶²

Table 15
U.S. exports of furniture: Canada is the most significant source, 1995-99

Country	1995	1996	1997	1998	1999	Change, 1999 from 1995	
	Million dollars					Absolute	Percent
Canada	1,453	1,433	1,641	1,829	2,062	609	42
Mexico	551	578	734	970	784	233	42
United Kingdom	98	117	138	176	265	167	170
Japan	223	287	320	345	202	-21	-9
Germany	56	57	73	85	82	26	46
Saudi Arabia	77	72	87	87	72	-5	-6
Netherlands	25	29	31	42	52	27	108
France	37	43	49	51	51	14	38
China	13	20	18	29	48	35	269
Egypt	5	6	10	12	43	38	760
All Other	685	798	962	888	814	129	19
Total	3,223	3,440	4,063	4,514	4,475	1,252	39

Source: Compile by the Commission from official statistics of the U.S. Department of Commerce.

The product mix of U.S. exports to Canada and Mexico was dominated by motor vehicle seats, reflecting the highly integrated nature of North American automobile manufacturing (figure 5). U.S. exports of motor vehicle seats and parts to Mexico are chiefly precut seat covers of U.S.-origin textile material or leather to be sewn in maquiladora operations, while exports to Canada typically consist of sewn seat covers and parts for the assembly of top-of-the-line, electronically-adjustable automobile seats. Leather aircraft seat covers accounted for the largest share of U.S. exports to the United Kingdom in 1999. Total U.S. exports of motor vehicle seats rose at an average annual rate of 12 percent during 1995-99, to \$1.7 billion.

U.S. household and office furniture exports each grew at an average annual rate of 9 percent during 1995-99, to \$782 million and \$506 million respectively. Canada purchased 31 percent (\$246 million) of U.S. household furniture exports in 1999 and 33 percent (\$155 million) of U.S. office furniture exports. According to industry sources, Canada is the

⁶⁰ (...continued)

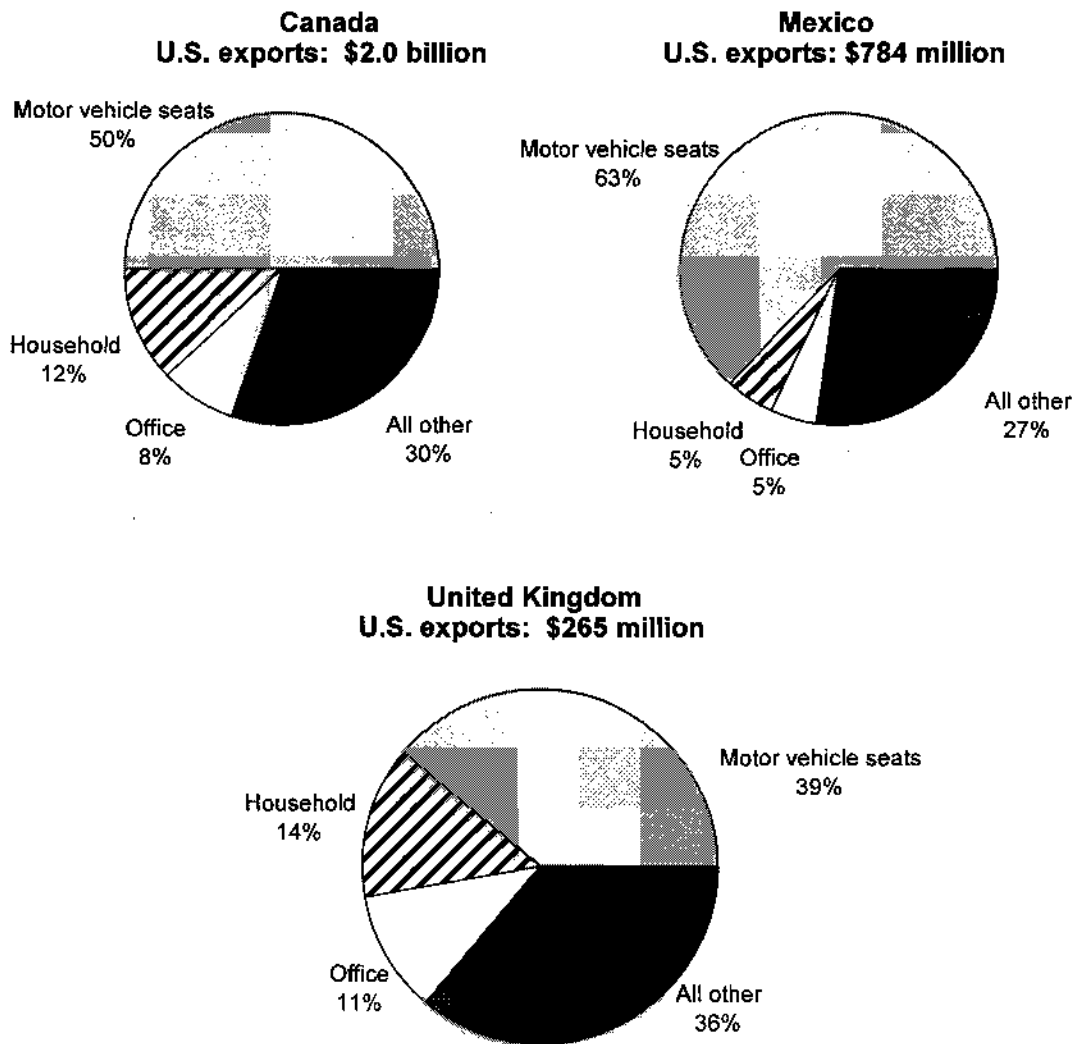
State publication, *Furniture FY98*, <http://www.stat-usa.gov/>; Globus and NTDB, Best Market Reports, retrieved June 9, 1998.

⁶¹ U.S. exports to Mexico accounted for 74 percent of world exports to Mexico in 1998 according to the World Trade Atlas-Mexico, Global Trade Services Inc.

⁶² U.S. furniture exports to Japan were estimated to have accounted for less than 10 percent of the Japanese import market in 1997 according to U.S. Department of State publication, *Furniture FY98*, 1997, Globus and NTDB, SINGAPORE - SURVEY OF THE FURNITURE INDUSTRY - ISA950701, Market Research Historical Archive found at Internet address <http://www.stat-usa.gov>, Mar. 3, 1998.

leading foreign market for U.S.-made household and office furniture because of proximity, which lowers shipping costs, as well as because of shared tastes in furniture. U.S. furniture is competitively priced in the Canadian market because U.S. producers operate at higher volumes than Canadian producers. As a result, U.S. manufacturers are able to pass on greater cost savings to the consumer. In addition, U.S. producers have established efficient distribution channels in Canada. The United States' chief competitors in the Canadian market are East Asian producers of low-cost RTA furniture.

Figure 5
Furniture: Motor vehicle seats and covers dominate U.S. exports to leading markets in 1999



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

Mexico was the fourth largest market for U.S. household furniture exports (\$37 million or 5 percent) in 1999 and the second largest office furniture market (\$40 million or 18 percent). As with Canada, low transportation costs enable fully-assembled U.S. household furniture to be competitive in the Mexican market compared with imports from Asia and Europe.

U.S. household furniture exports to the United Kingdom, the largest EU market for U.S. exports, totaled \$38 million in 1999 while U.S. office furniture exports to the UK amounted to \$30 million. Although office furniture exports to the EU as a whole were \$77 million in 1999, U.S. household furniture exports to the EU are comparatively more limited because of higher transportation costs and cultural preferences for contemporary designs by manufacturers in Italy, Germany, and Sweden. While many EU consumers of fully-assembled household furniture prefer the wood finishes offered by U.S. producers (oak, walnut, oak, beech, and ash), household furniture made in the EU is reportedly considered by industry sources to be of higher quality and style than that made in the United States.⁶³

The level of transportation cost to the EU market is a key factor in determining principal sources of EU imports. According to Eurostat data, the United States accounted for only 5 percent (\$379 million) of EU furniture imports in 1997 (latest data available). Poland was the largest source of EU imports in 1997, accounting for 17 percent (\$1.2 billion) of the total, followed by China and Indonesia, each accounting for 8 percent (\$515 million). Other leading sources of EU furniture imports in 1997 (all former Eastern Bloc countries) were the Czech Republic, 7 percent (\$481 million); Slovenia, 5 percent (\$372 million); and Romania, 5 percent (\$364 million).⁶⁴

Germany is the largest market for foreign-made furniture, accounting for 43 percent (\$2.9 billion) of intra-EU imports in 1997. The United Kingdom was the second largest market in 1997, with 13 percent (\$900 million); followed by France, with 11 percent (\$742 million).

Foreign Trade Measures

Tariff measures

The Mexican government raised tariffs on a number of products in response to a U.S. trade action implementing a temporary duty increase on imported broom corn brooms from Mexico, as set forth in Presidential proclamation dated November 28, 1996.⁶⁵ Mexican tariffs on U.S.-made wood furniture were raised from 6.0 percent to 15 percent. Mexico reduced its duty on wood furniture to free as of January 1, 1999, after the U.S. safeguard action taken in November 1996 was terminated in late 1998.

⁶³ USITC staff interviews with various industry representatives.

⁶⁴ Certain furniture companies in Eastern Europe designated by their former governments to produce furniture for the export market have entered joint ventures with a number of EU furniture firms to produce furniture for export.

⁶⁵ President Clinton raised duties on imports of Mexican broom corn brooms pursuant to section 203 of the Trade Act of 1974 (19 U.S.C. 2253).

In 2000, the principal countries serving as major markets for U.S. exports (Canada, Mexico, the EU) applied the tariff rates on furniture and selected furnishings shown in table 16. By comparison, the U.S. duty applied on imported furniture ranged from free to 6.0 percent.

Table 16
Comparison of foreign tariff rates on furniture from the United States, 2000: Harmonized Tariff Schedule headings 9401, 9402, 9403, and 9404

Country	Seats	Percent ad valorem		
		Medical furniture HS 9401	Furniture except seats and medical HS 9402	Mattresses HS 9403 HS 9404
Canada	Free	Free	Free	1.2 - 2.5
Mexico	Free	Free	Free	Free - 10.0
European Union	Free - 5.6	Free	Free - 5.6	3.7
Japan	Free - 4.0	Free-1.0	Free	4.2 - 4.6

Source: ITA country desks of the U.S. Department of Commerce.

Nontariff measures

There are no known foreign nontariff trade measures that significantly influence trade in furniture.

FOREIGN INDUSTRY PROFILES

The key global competitors in the U.S. market include the North American furniture and automobile seat producers,⁶⁶ China and other East Asian suppliers of household furniture, the large furniture producers in the predominantly Northern European countries, Italy, and certain producers in Central and Eastern Europe. Importantly, East Asian producers have been able to offset high transportation cost to the U.S. market with lower wage rates and an export strategy that focuses on furniture and components that can be cost effectively shipped such as RTA furniture, and compact fully-assembled furniture. Certain East Asian furniture manufacturers also ship labor-intensive furniture components and parts to the United States for assembly in U.S. subsidiary operations.⁶⁷

Profiles for the major country competitors which follow highlight general characteristics, economic developments, aspects of industry structure, trends in market segments, and operating arrangements that are important to understanding foreign producer activity in the U.S. market.

⁶⁶ Motor-vehicle seat industries in Canada and Mexico are generally limited to subsidiaries of U.S. motor vehicle seat and interior manufacturers or are operations that perform contract assembly for U.S. firms. Japanese motor-vehicle seat manufacturers supply the U.S. market from joint venture assembly plants in the United States and Mexico. For the most part, motor-vehicle producers in Japan purchase seat components from independent suppliers in Japan.

⁶⁷ USITC staff interviews with industry sources.

Canada

Canadian furniture manufacturers have focused their production strategy almost exclusively on products for the U.S. market, largely encouraged by its proximity, shared infrastructure, and similar consumer tastes for furniture. Consolidation of the Canadian furniture industry during the early and mid 1990s has improved production efficiencies enabling Canadian manufactures to compete more effectively in the U.S. market. The U.S.-Canada Free Trade Agreement,⁶⁸ which gradually phased out or eliminated Canadian tariffs that had previously insulated the industry from U.S. competition, coincided with more than 400 Canadian furniture manufacturers leaving the industry between 1989 and 1992.⁶⁹ Several years of weak Canadian economic growth and consumer demand⁷⁰ reportedly caused another 259 firms to exit during 1992-96.⁷¹ However, the number of Canadian furniture manufacturing firms increased steadily during 1996-99 largely attributable to stronger Canadian demand for furniture owing to an improving Canadian economy.⁷² Production efficiencies were also improved by significant increases in Canadian capital expenditures during 1995-98 (latest data available). Capital expenditures in the furniture industry rose from \$128 million in 1995 to \$237 million in 1998. Investments have focused on the acquisition of CAD equipment and CNC machinery in order to achieve higher levels of productivity.⁷³

According to Statistics Canada, the Canadian furniture industry included 1,460 manufacturers in 1999 with 62,919 employees (table 17). Canadian shipments of furniture rose by \$2.1 billion (58 percent) during 1995-99 to \$5.7 billion. A significant portion of Canadian furniture shipments were destined for the U.S. market as Canadian exports of furniture to the United States rose by \$2.0 billion (78 percent) during 1995-99 to \$4.5 billion.

The bulk of Canadian furniture manufacturers are located in Ontario and Quebec along the northeastern border of the United States.⁷⁴ These border firms have been particularly successful selling "modified European contemporary" furniture to the U.S. market. Canadian producers provide this type of furniture at a lower price than their European

⁶⁸ The U.S.-CFTA was implemented on Jan. 1, 1989.

⁶⁹ National Trade Data Bank, International Trade Administration, Report on Canada-Household Furniture, ISA9311, 1994.

⁷⁰ Canadian consumer demand had been weak due to persistently high rates of unemployment and virtually no growth in Canadian disposable incomes between 1992 and 1996, according to the Scotiabank, The Bank of Nova Scotia, *Global Economic Outlook* (Nova Scotia, Canada, Jan. 1997), p. 1.

⁷¹ Michael J. Knell, "Free Trade Puts Canadian Producers in Shape for Global Era," *Furniture Today*, Jan. 5, 1998, p. 29.

⁷² Statistics Canada, Capital and Repair Expenditures, Canada-manufacturing, Sectors 31-33, Furniture and Related Products, MATROX 11504, industry #D87201, found at Internet address <http://www.statcan.ca>, retrieved June 23, 2000.

⁷³ Most R&D on the development of materials, machinery, and equipment is done outside Canada by industry suppliers. The Canadian furniture industry also imports a significant portion of its material inputs, according to Industry Canada, "Sector Competitiveness Frameworks: Household Furniture," (Ottawa, Canada, 1996), p. 2.

⁷⁴ USDOC, *The Canadian Furniture Market Overview*, May 1999, p. 2, found at Internet address <http://strategis.ic.gc.ca>, retrieved Apr. 26, 2000.

competitors because they have greater access to lumber and significantly lower transportation costs. Dorel and Palliser, the top-two Canadian furniture manufacturers, indicated that exports to the United States made up one-half or more of their production.⁷⁵

Table 17
Canadian furniture industry: Employment and export gains pace market improvements, 1995-99

Indicator	1995	1996	1997	1998	1999	Change, 1999 from 1995	
						Absolute	Percent
Number of establishments	1,200	1,150	1,330	1,410	1,460	260	22
Number of employees	46,028	52,266	58,830	60,463	62,919	16,891	37
Shipments (<i>million dollars</i>)	3,643	4,095	4,669	5,209	5,743	2,100	58
Exports (<i>million dollars</i>)	2,524	3,026	3,581	4,134	4,493	1,969	78
Imports (<i>million dollars</i>)	1,900	1,860	2,183	2,426	2,794	894	47
Apparent consumption (<i>million dollars</i>)	3,019	2,929	3,271	3,501	4,044	1,025	34
Trade balance (<i>million dollars</i>)	624	1,166	1,398	1,708	1,699	1,075	172

Note.—The market exchange rates (rf) of Canadian dollars per U.S. dollars were: 1995= 1.3724, 1996 = 1.3635, 1997= 1.3846, 1998 = 1.4835, and 1999 = 1.4857, as provided by the International Monetary Fund in *International Financial Statistics*, May 2000.

Source: For employment, shipments, and establishments, Statistics Canada, *Furniture and Fixtures Industries*, found at Internet address <http://www.statcan.ca/datawarehouse/cansim.cgi>, retrieved June 6, 2000. For imports and exports, Statistics Canada, *Strategis, International Business Opportunities Trade and Investment*, trade data found at Internet address <http://strategis.ic.gc.ca>, retrieved March 13, 2000.

According to Statistics Canada, Canadian shipments of household furniture rose by \$709 million (53 percent) during 1995-99 to \$2.0 billion (see tabulation).

	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>
Canadian household furniture shipments (<i>million dollars</i>) ¹	1,335	1,481	1,611	1,785	2,044

¹ Found at Internet address <http://www.statcan.ca> retrieved June 2, 2000.

Canadian shipments of office furniture doubled during 1995-99 to \$1.8 billion (see tabulation). Canadian producers are export-oriented, shipping well over half of their 1999 domestic production to the United States. The Canadian subsidiaries of U.S. producers Steelcase and Knoll accounted for a significant portion of Canada's production of office furniture.

	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>
Canadian office furniture shipments (<i>million dollars</i>) ¹	938	1,111	1,432	1,647	1,830

¹ Data provided by Statistics Canada, found at Internet address <http://www.statcan.ca> retrieved on June 2, 2000.

⁷⁵ Michael Knell, "Exports Prove Major Factor in Manufacturing Growth," *Furniture Today*, Oct. 2, 1995, p.3.

Domestic Industry

The Mexican furniture industry's competitive strength lies in its highly skilled, yet low-cost labor force, proximity to the United States, and sustained access to domestically milled lumber suitable for furniture production.⁷⁶ Mexican producers have a particular comparative advantage in the U.S. market for fully assembled, rustic-style wood household furniture and certain upholstered leather furniture.

Rustic furniture is designed as a pre-industrial style, with slightly uneven surfaces, and a transparent finish that shows the wood grain. This low-cost production strategy specifically avoids the highly finished and polished segment of the U.S. wood household furniture market where U.S. producers dominate. In addition, rustic furniture usually consists of large, labor-intensive items such as cabinets with drawers, dining room tables with matching chairs, and storage chests.⁷⁷ Since these items are costly to ship, furniture producers in Mexico have a competitive advantage over other foreign producers in the U.S. market. However, the U.S.-Canadian market for rustic furniture has recently reached volumes that enable low-cost, East Asian producers, particularly Indonesia, to compete with producers in Mexico.⁷⁸ In response to competition from East Asia, furniture producers in Mexico are beginning to shift production toward mid-priced furniture styles influenced by European designs, such as contemporary, worked-metal tables, and labor-intensive, hand-carved armoires (cupboard/wardrobes) that can be used as part of wall systems.⁷⁹

Upholstered leather furniture manufacturers in Mexico are competitive in the U.S. market principally because the quality of leather furniture made in Mexico is comparable to that of some Italian producers despite Mexico's use of lower technology manufacturing methods. Moreover, lower cost labor in Mexico allows for more man-hours per product.⁸⁰

The furniture industry in Mexico is more fragmented than the U.S. industry (table 18). The average Mexican household furniture firm employed 12 persons in 1997, compared with an

⁷⁶ Mexico accounts for 1.3 percent of the world's total forest resource. However, Mexico is exceptionally rich in pines and has 72 species of trees, more than any other country in the world. The largest areas of temperate-cold forest that account for 90 percent of Mexico's forest production are in the states of Chihuahua, Durango, Jalisco, Michoacan, Oaxaca, Chiapas, and Guerrero. Tropical forests are located in the states of Chiapas, Quintana Roo, Yucatan, Campeche, Tabasco, and Oaxaca. Over 90 percent of all hardwood lumber production is consumed by Mexico's furniture manufacturing industry. (Found at Internet address <http://www.vpm.com/wfi/mexico.htm>, retrieved June 18, 1998, Document date: 23 June, 1997.)

⁷⁷ Telephone interview with George Fabre, Equipo Muebles, Guadalajara, Mexico, June 1998.

⁷⁸ Reportedly, the last five collections of Rustic furniture introduced at trade shows in Mexico have been from Indonesia. Brian Carroll, "Next Generation Rustic Expands Reach," *Furniture Today*, July 19, 1999, p. 9.

⁷⁹ Powell Slaughter, "Expo Mueble Keeps Raising the Bar," *Furniture Today-supplement Latin America*, Spring 2000, p. 10.

⁸⁰ USITC staff interview with various industry sources.

estimated 45 persons employed by the average U.S. wood household furniture firm (latest data available). The relatively consolidated group of large Mexican household furniture manufacturers, those employing an average of 468 persons, are competitive in world markets for price and quality.⁸¹ Mexican household furniture production destined for the United States generally consists of low- to mid-priced, fully assembled, rustic-style furniture of solid wood.⁸² Wood household furniture accounted for over 50 percent of total Mexican furniture production in 1999.

Table 18
Wood household furniture manufacturers in Mexico: establishments, employment, and average employment per firm, 1997¹

Size	Establishments	Employment	Average employment per firm
Family run	5,610	20,896	4
Small	750	26,726	35
Medium	101	15,773	156
Large	35	16,411	468
Total	6,496	79,806	12

¹Latest data available.

Source: *Muebles y accesorios de madera, Establecimientos en la Industria Manufacturera*, Bimestres, 1997, Instituto Mexicano del Seguro Social.

Metal furniture manufacturers accounted for about one-third of furniture production in Mexico in 1997 (latest data available).⁸³ The bulk of production was accounted for by office furniture (filing cabinets, desks, and metal frame chairs), metal bed frames, and metal dining-room and patio furniture. As with the household furniture industry, only the largest producers are competitive in world markets.

⁸¹ Major furniture manufacturers in Mexico include: Triplay y Aglomerados de Ocotlan, Mobel Prince S.A. De C.V., Dixy Homero, Terna Terciopelera Nacional, Devane, Segusion, Sabone, and Camas Lamas.

⁸² There are an estimated 150 companies in Mexico that manufacture rustic furniture. Of these firms, more than 30 companies are capable of producing 40,000 rustic furniture pieces per month. These top 30 companies export to 48 countries. Juan Manuel and Reyes Brambila, "Market for Rustic Furniture Opens July 24," *Furniture Today/NotiMuebles*, July 1997, p. 50.

⁸³ *Muebles y accesorios de madera, Establecimientos en la Industria Manufacturera*, Bimestres, 1997, Instituto Mexicano del Seguro Social.

Maquiladora Industry⁸⁴

A number of U.S.-owned automobile seat and wood household furniture firms have assembly operations in Mexico's maquiladora industry. Most parts and materials imported by these operations are of U.S. origin, with the bulk of the finished articles subsequently exported to the United States. The total value of U.S. furniture imports into Mexico from the United States was \$573 million in 1999 (table 19). Motor vehicle seats and parts accounted for almost one-half of all furniture imports into Mexico that year. Virtually all motor vehicle seats and parts entered Mexico under the Maquiladora or PITEK programs.⁸⁵ Other U.S. furniture imported into Mexico in 1999 consisted mostly of household and office furniture.

Table 19
Furniture: Mexico's imports from and exports to the United States, 1996-99

Type of furniture	Imports from the United States				Exports to the United States			
	1996	1997	1998	1999	1996	1997	1998	1999
	<i>Million dollars</i>							
All furniture:								
Maquiladora and PITEK	240	283	276	306	1,134	1,389	1,525	1,963
Other	160	196	230	267	156	243	195	206
Total	400	480	506	573	1,289	1,632	1,720	2,169
Motor vehicle seats and parts:								
Maquiladora and PITEK	215	248	234	265	715	852	853	1,211
Other	6	8	13	9	20	24	17	16
Total	222	257	247	274	735	876	870	1,226
Other furniture:								
Maquiladora and PITEK	25	35	42	41	419	537	672	752
Other	154	188	217	258	137	219	179	190
Total	178	223	259	299	555	756	850	943

¹ Both the Maquiladora Program and the PITEK program allow companies to import components and materials into Mexico free of duty provided that they are used for the assembly of goods that are exported. Companies registered under the Maquiladora Program tend to be foreign-owned, whereas companies operating under the PITEK program are registered as Mexican companies, although many PITEK firms are subsidiaries of foreign-owned multinational companies.

Source: CD-ROM: *World Trade Atlas: Edition 1996-1999, Preliminary* (Columbus, SC), Global Information Services: (1999). Export data on this disc for Mexico's PITEK industry are classified under "Definitive exports with returns" while imports are classified under "temporary imports." All other trade (not Maquiladora or PITEK) is classified as "definitive."

⁸⁴ The Maquiladora Program provides duty-free entry of parts into licensed export-oriented assembly plants in Mexico. Up to 80 percent of a maquiladora's annual production can be sold to customers in Mexico, but duty must be paid on parts used to produce furniture for domestic sales. Beginning on Jan. 1, 2001, components used by the maquiladora industry that are not of North American origin will be subject to the higher of the U.S. or Mexican duties if the assembled product is exported to the United States.

⁸⁵ The Program for Temporary Importation of Goods to Produce Exports (PITEK) operates in nearly identical fashion to the Maquiladora Program. The differences between the two programs relate to subtle distinctions in Mexico's tax codes.

Total furniture exports to the United States from Mexico were \$2.2 billion in 1999. Motor-vehicle seat covers sewn in Mexico by companies operating under the Maquiladora and PITEX Programs and using U.S. fabrics or leather cut in the United States accounted for more than one-half of furniture exports from Mexico in 1999.⁸⁶ The finished seat covers are shipped directly to the United States or used to cover motor-vehicle seats assembled in Mexico. The next leading furniture export item, rustic style wood household furniture, is produced in Mexico without the use of imported parts and materials.

There were more than 50 U.S. furniture firms assembling wood household furniture in Mexico's maquiladora industry in 1999. Another dozen U.S. firms are believed to assemble furniture in Mexico as a secondary product line. For example, furniture for home entertainment centers is often assembled by companies that make electronic-related equipment.⁸⁷

Most of the U.S.-owned firms assembling household furniture in Mexico's maquiladora industry have never manufactured furniture in the United States, although many use U.S.-made furniture components exclusively in their furniture assembly operations. Assembly in Mexico enables these firms to compete more effectively with low-cost East Asian producers in U.S. markets. Most of the furniture assembled in Mexico is destined for California, Arizona, New Mexico, and Texas.⁸⁸ In 1998, the total value of shipments of wood household furniture to the United States from Mexico's maquiladora operations were an estimated \$150 million.⁸⁹

China and Other East-Asian Producers

East-Asian producers, principally China, Malaysia, Indonesia, Taiwan, and the Philippines, are major world exporters of furniture to the United States.⁹⁰ According to industry sources, furniture firms in East Asia are successful in the U.S. and EU markets because they have access to low-cost labor, use highly efficient methods of manufacture, and employ effective marketing strategies.⁹¹

⁸⁶ This estimate includes the seat covers assembled in Mexico that are incorporated in motor vehicles assembled in Mexico for the U.S. market.

⁸⁷ USITC staff interview with various industry sources.

⁸⁸ Telephone interviews by USITC staff with firms listed in *The Complete Twin Plant Guide* (El Paso, Texas: Solunet Publications, 1996), May 1998.

⁸⁹ From official statistics of Mexico's Department of Commerce and Industrial Development (SECOFI).

⁹⁰ Furniture produced in East Asia is principally of rubber wood, tropical hardwoods (mahogany, rosewood, teak), and rattan. Rubber wood comes from trees that were initially grown for their natural latex sap. Rubber wood became an inexpensive source of lumber when methods for killing the fungus in such trees was developed in the mid-1970s. Rubber wood can be made to look like oak or pine. Rattan is the most popular material used in woven furniture. It is derived from the stems of rattan palms and can only be found in the Asian tropics and subtropics (primarily Indonesia, Singapore, Vietnam, Malaysia, Thailand, and the Philippines).

⁹¹ USITC staff interview with various industry sources.

Initially, East Asian exporters focused on producing low- to mid-priced wood furniture shipped either fully assembled (e.g. compact dinette sets, end tables, or secretaries) or as RTA (e.g. bookcases or stereo stands) to the U.S. market. Low-cost, East Asian producers reportedly are successful because U.S. consumers in these markets are more cost-conscious and appreciate the solid construction of wood household furniture. Low wage rates and the focus on types of furniture that can be shipped in RTA or knock-down form can, according to trade sources, offset high transportation costs to the U.S. market.

Several leading East Asian furniture producers have adjusted their manufacturing strategies to reduce costs and/or cut delivery times. As domestic wages in Taiwan, Korea, and Singapore began to rise, many furniture producers in these countries shifted their low-cost, labor-intensive, export-oriented production to China, Malaysia, Indonesia, Thailand, and the Philippines in order to remain cost competitive.⁹² Some East Asian producers, seeking to enter the U.S. market for fully assembled, mid- to upper-priced furniture established assembly/manufacturing operations in the United States and retooled Asian facilities to manufacture mid- to upper-priced wood furniture components suitable for Western markets.⁹³ Examples of Asian companies investing in U.S. assembly facilities include Kiani of Indonesia and Hyundai of Korea.⁹⁴

Universal, originally a Singapore-based subsidiary of Hong Kong Teak Works and currently a division of Lifestyle Furnishings, has three U.S. production facilities.⁹⁵ One of the facilities manufactures mid- to upper-priced bedroom furniture. Production is shared between the United States and East Asia. Highly labor-intensive carved bedposts, table and chair legs, and drawer fronts are imported into the United States from China. These parts are combined with flat, capital-intensive furniture components made in highly automated, U.S. production facilities (bed rails, drawer sides, and tops).⁹⁶

The number of Asian furniture companies with manufacturing subsidiaries in the United States is expected to increase over the next several years. Profit margins are higher in the fully assembled, mid- to upper-priced segment of the U.S. furniture market than they are in market segments currently dominated by East Asian manufacturers (RTA furniture; and compact, low- to mid-priced, fully assembled furniture such as dinette sets, stacking chairs, end tables, and coffee tables). High transportation costs for mid- to upper-priced, fully assembled furniture (chests of drawers, dining room tables, China cabinets) also provides an incentive to invest in U.S. production facilities.

⁹² Kristen Hoff, Nona Fisher, Sandra Miller, and Alan Webb, "Sources of Competitiveness for Secondary Wood Product Firms: A Review of Literature and Research Issues," *Forest Products Journal*, Feb. 1997, vol. 47, pp. 31-37.

⁹³ Ibid.

⁹⁴ USITC staff telephone interview with Gerry Epperson, Partner, Mann, Armistead, and Epperson, Richmond, VA, Apr. 13, 1998.

⁹⁵ Brian Carroll, "Universal Revamps Structure," *Furniture Today*, Nov. 24, 1997, p. 1.

⁹⁶ Ibid.

According to the China National Furniture Association, the furniture industry in China consists of over 30,000 furniture manufacturers with an estimated 2 million employees.⁹⁷ Of these domestic furniture manufacturers, about 8 percent are foreign-owned firms or joint ventures.⁹⁸ The production of these firms is export oriented, much of which is directed towards the U.S. market. The principal foreign investors in the Chinese furniture industry are from Hong Kong, Taiwan, and Singapore. Although certain U.S. producers have established production facilities in China, the majority of U.S. firms sourcing furniture in China do so through contract operations. U.S. producers that have such operations in China are reportedly able to achieve cost savings of 30 percent to 50 percent over domestically made furniture components.⁹⁹

The Malaysian furniture industry has evolved to a large degree as a result of the maturation and rising labor costs characterizing the Taiwanese industry, and the destruction of factories in most of the furniture-producing area of what was once Yugoslavia.¹⁰⁰ In addition, the development of the domestic furniture industry is a priority of the Malaysian Government. Furniture is classified as a primary industry, entitling its participants to tax exemptions, rebates for training, and tariff exemptions on all equipment and supplies used by the industry. Malaysian furniture production is focused on wood household furniture.¹⁰¹

European Union

EU shipments of wood and metal furniture rose at an average annual rate of 8 percent during 1994-1998 (latest data available) to 69,670 million EMU (table 20). In 1998, household furniture was estimated to have accounted for roughly three-quarters of the total value of EU furniture shipments and accounted for 90 percent of employment in the furniture industry.

EU manufacturers have a worldwide reputation for top quality, pre-industrial style wood furniture such as Louis XV, Victorian, and French Provincial, which continue to dominate current furniture designs.¹⁰² The bulk of EU furniture production consists of: (1) mid- to upper-priced, fully assembled household furniture; (2) office furniture; and (3) RTA furniture made from plastic-coated particle board. EU producers do not have access to large sources of competitively priced lumber, and much of the wood used in their fully assembled, household furniture is imported from the United States. The largest EU producers of

⁹⁷ USDA, Foreign Agricultural Service, China; *Forest Products Annual Report*, p. 10, found at Internet address <http://www.stat-usa.gov>, retrieved Apr. 24, 2000.

⁹⁸ USDOC, International Trade Administration, Diane Shen and Merry Cao, *China Furniture Sales*, Sept. 1998, p. 3, found at Internet address <http://www.stat-usa.gov>, retrieved Apr. 24, 2000.

⁹⁹ Brian Carroll, "China Imports Booming," *Furniture Today*, Nov. 8, 1999, p. 1.

¹⁰⁰ Tom Edmonds, "Malaysian Manufacturers Come on Strong," *Furniture Today*, Mar. 28, 1994, p. 9.

¹⁰¹ *Ibid.*

¹⁰² The British Antique Furniture Restorer's Association (BAFRA), *The BAFRA Furniture Report*, found at Internet address <http://www.bafra.org.uk>, retrieved Mar. 1, 2000.

Table 20
Wood and metal furniture: EU shipments, exports of domestic merchandise, imports for consumption, trade balance, and apparent consumption, 1994-98

Year	Shipments	Exports	Imports	Trade Balance	Consumption
	<i>EMU millions</i>				
1994	50,587	5,141	3,704	1,437	49,150
1995	58,315	5,034	3,292	1,742	56,573
1996	61,850	5,460	3,540	1,920	59,930
1997 ¹	65,650	5,930	3,820	2,110	63,540
1998 ¹	69,670	6,430	4,110	2,320	67,350

¹ Estimated by the U.S. International Trade Commission.

Source: *Panorama of EU Industry 1997*, Commission of the European Communities.

furniture, with the exception of Italy, are located in Northern Europe (see tabulation). Producers located in the southern member States of Greece, Portugal, and Spain are still largely artisan, with a high presence of small firms.

<u>Company</u>	<u>Home country</u>
Skandinavisk Gruppe	Denmark
Groupe Parisot, Steelcase-Strafor	France
Alno, Nobilia, Schieder Gruppe, Klaussner Gruppe Steinhoff Gruppe, Welle Gruppe, Wellmann, Skane-Gruppen, Volka	Germany
Natuzzi, Snaido	Italy
Samas Groep	Netherlands
Christie-Tyler	United Kingdom

Competition is intensifying in the EU in response to the single EU market and low-cost furniture imports from East Asia and Eastern Europe. In order to remain competitive with imports, certain EU furniture firms are concentrating on the design and distribution of furniture, rather than the manufacturing operations. An example of such a firm is IKEA, a Swedish distributor of furniture. The furniture distributed by IKEA is designed in-house but manufactured in contract operations located in Eastern Europe, Asia, or Mexico. Establishing an international contract operation is a strategy generally pursued by large furniture firms because foreign contract operations often require capital investments and a managerial framework that can focus on international operations.¹⁰³

Other EU furniture manufacturers have improved their productivity by shifting production from labor-intensive, fully assembled furniture, to the capital-intensive production of RTA furniture. Greater emphasis on RTA furniture production and investments in machinery and

¹⁰³ Mark Lorenzen, *Specialization and Localized Learning in the European Furniture Industry*, Handelshojskolens Forlag, (Copenhagen Business School Press), 1998, p. 14. 47

equipment have resulted in steady productivity gains.¹⁰⁴ By 1997 (latest data available), continuing advances in automation reduced the wage share to 28 percent of company sales compared with about 50 percent of company sales in the 1960s.¹⁰⁵

According to Eurostat data, Italy was the largest EU exporter of furniture in 1999, followed by Germany. The principal products exported by Italy were upholstered leather sofas and chairs and living-room and dining-room furniture, other than seating. Furniture exported by Germany consisted mostly of wood kitchen cabinets, upholstered wood seating, and wood living-room and dining-room furniture, other than seating.

Italy

Italian furniture production is concentrated in the industrial districts in regions of Veneto, Lombardia, Marche, Toscana, Campania, and Basilicata.¹⁰⁶ Many furniture plants in Italy are relatively small (under 50 employees) and a large number of these companies work together under cooperative agreements. The Italian furniture industry is particularly adept at recognizing both domestic and international market trends by meeting regularly with representatives of furniture production cooperatives to discuss furniture designs, use of materials, and technological innovations. Many moderate-sized Italian furniture producers (50-250 employees) purchase the wood components used to make finished furniture from domestic manufacturers. This allows such furniture firms to focus on the assembly and finishing of furniture.¹⁰⁷ Italian production destined for export markets is concentrated in the living room and bedroom sectors. The low levels of concentration in the Italian furniture industry allow producers to be highly responsive to the frequent changes in design in these sectors.¹⁰⁸

Germany

German manufacturers provide top-quality, RTA furniture and fully-assembled furniture. Producers in Germany maintain state-of-the art furniture processing machinery and are particularly skilled in refining methods of manufacture that make use of particle board, plywood, and veneers that are less costly than solid wood. German manufacturers are perfecting machining and finishing techniques that come very close to the look of solid wood (consisting of polyvinyl-chloride foil and various other veneers). Nevertheless, the Germans, like other EU furniture producers, lag behind the Italians in their ability to quickly

¹⁰⁴ *Panorama of EU Industries-1997: Furniture*, European Commission, pg. 18-2.

¹⁰⁵ *Ibid.*, pg. 1.

¹⁰⁶ Gabriella Lojacono and Mark Lorenzen, "External Economies and Value Net Strategies in Italian Furniture Districts," *Specialization and Localized Learning in the European Furniture Industry*, ed. Mark Lorenzen, Handelshojskolens Forlag, Copenhagen Business School Press, 1998, p. 73.

¹⁰⁷ Massimo Florio, Franco Peracchi, and Paolo Sckokai, "Market Organization and Propagation of Shocks The Furniture Industry in Germany and Italy," *Small Business Economics*, pp. 169-182, 1998.

¹⁰⁸ *Ibid.*

change designs to meet changing consumer tastes. German-made furniture is generally marketed towards the upper-priced market segments in the United States.¹⁰⁹

Central and Eastern Europe

Poland and Romania are the largest furniture producers in Central and Eastern Europe, accounting for a significant share of total EU imports of furniture. Before the re-unification of Germany, furniture manufacturers in East Germany and elsewhere in Central and Eastern Europe were geared towards long-term contracts with the Soviet Union or other Eastern Bloc countries within the region.¹¹⁰ Most of these plants were unable to compete in world markets owing to low-technology methods of manufacture, poor distribution networks, lack of quality control, and outdated accounting procedures. However, the manufacturing capabilities of a certain number of furniture companies in Central Europe, particularly those in the former Yugoslavia, Poland, and Romania, made use of the latest technology because their production was designated by their national ministries of industry to produce higher quality furniture for export markets to gain foreign exchange.¹¹¹ Other producers made lower quality furniture for domestic markets. Wood household furniture production in Yugoslavia (particularly Bosnia) declined dramatically during the 1990s with the start of civil warfare in 1991.

¹⁰⁹ Association of German Chamber of Industry and Commerce, *Foreign Trade and Competitiveness of the German Economy*, found at Internet address <http://www.handelskammer.de/aktuel>, retrieved Mar. 16, 2000.

¹¹⁰ European countries of the former Eastern Bloc are currently Albania, Belarus, Bosnia, Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Macedonia, Moldova, Poland, Romania, Russia, Slovakia, Slovenia, Ukraine, and Yugoslavia.

¹¹¹ International Trade Center UNCTAD/GATT, *Wooden Household Furniture: Study of Major Markets*, 1990, p.13.

APPENDIX A
EXPLANATION OF TARIFF AND TRADE
AGREEMENT TERMS

TARIFF AND TRADE AGREEMENT TERMS

In the *Harmonized Tariff Schedule of the United States* (HTS), chapters 1 through 97 cover all goods in trade and incorporate in the tariff nomenclature the internationally adopted Harmonized Commodity Description and Coding System through the 6-digit level of product description. Subordinate 8-digit product subdivisions, either enacted by Congress or proclaimed by the President, allow more narrowly applicable duty rates; 10-digit administrative statistical reporting numbers provide data of national interest. Chapters 98 and 99 contain special U.S. classifications and temporary rate provisions, respectively. The HTS replaced the *Tariff Schedules of the United States* (TSUS) effective January 1, 1989.

Duty rates in the *general* subcolumn of HTS column 1 are normal trade relations 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 listed in HTS general note 3(b) (Afghanistan, Cuba, Laos, North Korea, and Vietnam) plus Serbia and Montenegro, which are subject to the statutory rates set forth in *column 2*. Specified goods from designated general-rate 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 rate of duty 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 several times thereafter, applies to merchandise imported on or after January 1, 1976 and before the close of September 30, 2001. Indicated by the symbol "A", "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. A related program (see general note 16) established under the *African Growth and Opportunity Act* (AGOA), effective from October 2, 2000, through the close of September 30, 2008, provides duty-free entry to other eligible goods the product of and imported directly from qualified, designated sub-Saharan African beneficiary countries, as indicated by the symbol "D" in the special subcolumn; additional tariff benefits are authorized for specified textile and apparel products under subchapter XIX of chapter 98 of 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. A related program (see general note 17) enacted in the *United States-Caribbean Basin Trade Partnership Act* and known as the CBTPA is effective from October 2, 2000, through the close of September 30, 2008 (unless beneficiary countries earlier join a possible Free Trade Area of the Americas). Indicated by the symbol "R" in the special subcolumn in chapters 1 through 97 of the HTS, the CBTPA provides duty-free or reduced-duty entry (identical to the rate of duty in effect for like goods of Mexico under the terms of general note 12) to certain products of qualified, designated CBTPA beneficiary countries imported directly therefrom; such tariff treatment is also provided to specified textile and apparel products under the provisions of subchapter XX of chapter 98 of 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 free rates of duty in the special subcolumn followed by the symbol "CA" are applicable to eligible goods of Canada, and rates 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 and implemented effective January 1, 1994 by Presidential Proclamation 6641 of December 15, 1993. Goods must originate in the NAFTA region under rules set forth in general note 12(t) and meet other requirements of the note and applicable regulations.

Other special tariff treatment applies to particular *products of insular possessions* (general note 3(a)(iv)), *products of the West Bank and Gaza Strip* (general note 3(a)(v)), 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), pursuant to the Agreement Establishing the World Trade Organization, is based upon the earlier 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 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

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the U.S. schedule designated as Schedule XX. Pursuant to the **Agreement on Textiles and Clothing** (ATC) of the GATT 1994, member countries are phasing out restrictions on imports under the prior "Arrangement Regarding International Trade in Textiles" (known as the **Multifiber Arrangement** (MFA)). Under the MFA, which was a departure from GATT 1947 provisions, importing and exporting countries negotiated bilateral agreements limiting textile and apparel shipments, and importing countries could take unilateral action in the absence or violation of an agreement. Quantitative limits had been established on imported 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. The ATC establishes notification and safeguard procedures, along with other rules concerning the customs treatment of textile and apparel shipments, and calls for the eventual complete integration of this sector into the GATT 1994 over a ten-year period, or by Jan. 1, 2005.