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# Transportation Equipment

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## *Change in 2003 from 2002:*

**U.S. trade deficit: Increased by \$6.8 billion (8 percent) to \$89.3 billion**

**U.S. exports: Decreased by \$1.7 billion (1 percent) to \$142.9 billion**

**U.S. imports: Increased by \$5.1 billion (2 percent) to \$232.2 billion**

The transportation equipment trade deficit increased over 8 percent in 2003, and the sectors that contributed significantly to this shift include motor vehicle parts, aircraft, and internal combustion engines (see tables TE-1 and TE-2). U.S. imports of motor vehicles increased in 2003, but were offset by increased exports; therefore, the deficit in motor vehicles decreased slightly in 2003 (see Motor Vehicles). A decline in U.S. aircraft exports reflected the depressed demand for air travel and the poor financial condition of many of the world's airlines (see Aircraft, Spacecraft, and Related Equipment). Trade shifts in the motor-vehicle parts and engine sectors are reflective of the U.S. and foreign automotive firms' global production and sourcing strategies (see Certain Motor-Vehicle Parts and Internal Combustion Engines, Other Than For Aircraft).

Canada continued to be the largest bilateral trading partner in transportation equipment, accounting for 29 percent of U.S. transportation equipment imports and 34 percent of U.S. transportation equipment exports in 2003 (see table TE-1). The automotive industries in the United States and Canada are highly integrated, leading to large volumes of two-way trade in motor vehicles and motor-vehicle parts. Japan and Mexico are also leading U.S. trading partners in transportation equipment. Japan is a leading motor vehicle and motor-vehicle parts producer; U.S. demand for vehicles from Japan, as well as demand for Japanese motor-vehicle parts for use in vehicle assembly in the United States by "transplants" from Japan, accounts for a significant portion of transportation equipment trade with Japan. Over the last decade, Mexico has grown both as a global automotive producer and as a U.S. trading partner in the automotive sector.

During 1999-2003, U.S. transportation equipment imports from Korea grew by an average annual rate of 25 percent. Imports of motor vehicles displayed a similar trend during the period, growing by an average annual rate of 29 percent. Moreover, motor vehicles as a percentage of transportation equipment imports from Korea grew from 71 percent in 1999 to 80 percent in 2003. Quality improvements and competitive pricing have helped Korean automakers increase their share of the U.S. passenger vehicle market.

Table TE-1

Transportation equipment: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1999-2003<sup>1</sup>

Item	1999	2000	2001	2002	2003	Change, 2003 from 2002	
						Absolute	Percent
<i>Million dollars</i>							
U.S. exports of domestic merchandise:							
Canada	48,132	48,387	44,207	46,733	48,568	1,835	3.9
Japan	8,458	7,825	6,812	8,099	8,402	304	3.7
Mexico	11,588	15,285	14,953	14,524	13,725	-798	-5.5
Germany	6,515	6,935	7,452	6,961	7,932	971	13.9
United Kingdom	10,303	8,957	9,234	6,970	7,526	556	8.0
Korea	2,664	2,970	3,510	3,364	2,809	-555	-16.5
France	5,700	5,164	5,760	6,042	4,288	-1,754	-29.0
China	2,888	2,368	3,198	4,293	3,757	-535	-12.5
Brazil	2,483	2,611	3,855	3,116	2,458	-658	-21.1
Italy	1,869	1,474	1,555	2,651	2,722	72	2.7
All other	45,117	41,416	43,789	41,903	40,759	-1,144	-2.7
Total	145,716	143,393	144,325	144,655	142,948	-1,707	-1.2
EU-15	36,792	34,148	33,844	31,778	32,237	459	1.4
OPEC	7,510	5,750	5,832	5,641	4,769	-872	-15.5
Latin America	19,980	23,446	23,859	22,226	20,303	-1,922	-8.6
CBERA	1,709	1,916	1,473	1,756	1,700	-56	-3.2
Asia	22,938	20,726	24,123	25,073	24,576	-497	-2.0
Sub-Saharan Africa	1,695	1,796	2,856	1,877	2,284	408	21.7
Central and Eastern Europe	427	450	523	389	751	363	93.3
U.S. imports of merchandise for consumption:							
Canada	68,517	69,296	64,781	65,462	66,727	1,265	1.9
Japan	49,425	54,226	52,200	55,583	53,274	-2,309	-4.2
Mexico	24,798	31,373	31,046	31,117	30,664	-453	-1.5
Germany	21,225	22,973	23,916	24,978	27,346	2,368	9.5
United Kingdom	9,681	9,408	9,831	10,147	10,485	337	3.3
Korea	4,093	6,152	7,810	8,282	9,836	1,554	18.8
France	7,800	9,696	10,437	9,161	7,941	-1,221	-13.3
China	1,220	1,991	1,773	2,302	3,072	769	33.4
Brazil	2,475	2,727	3,463	3,739	3,877	138	3.7
Italy	2,076	2,230	2,388	2,395	2,425	30	1.3
All other	12,249	13,169	14,264	13,980	16,567	2,587	18.5
Total	203,560	223,242	221,907	227,147	232,212	5,065	2.2
EU-15	47,863	51,499	54,414	53,599	56,103	2,504	4.7
OPEC	350	355	339	344	501	157	45.6
Latin America	27,602	34,465	34,821	35,223	34,929	-294	-0.8
CBERA	50	58	60	70	69	-1	-2.0
Asia	57,097	64,947	64,395	69,115	69,476	361	0.5
Sub-Saharan Africa	201	185	399	621	823	202	32.6
Central and Eastern Europe	397	609	799	842	1,769	927	110.1

See footnote(s) at end of table.

**Table TE-1--Continued**

**Transportation equipment: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1999-2003<sup>1</sup>**

Item	1999	2000	2001	2002	2003	Change, 2003 from 2002		
						Absolute	Percent	
	<i>Million dollars</i>							
U.S. merchandise trade balance:								
Canada .....	-20,385	-20,908	-20,574	-18,730	-18,159	571	3.0	
Japan .....	-40,968	-46,400	-45,388	-47,484	-44,872	2,612	5.5	
Mexico .....	-13,210	-16,088	-16,093	-16,593	-16,939	-345	-2.1	
Germany .....	-14,710	-16,039	-16,464	-18,017	-19,414	-1,397	-7.8	
United Kingdom .....	621	-451	-597	-3,177	-2,958	219	6.9	
Korea .....	-1,428	-3,182	-4,300	-4,918	-7,027	-2,109	-42.9	
France .....	-2,100	-4,531	-4,677	-3,119	-3,652	-533	-17.1	
China .....	1,668	377	1,425	1,990	686	-1,304	-65.5	
Brazil .....	8	-116	392	-623	-1,419	-796	-127.8	
Italy .....	-207	-756	-833	256	297	41	16.2	
All other .....	32,869	28,247	29,526	27,923	24,192	-3,731	-13.4	
Total .....	-57,843	-79,849	-77,583	-82,492	-89,264	-6,772	-8.2	
EU-15 .....	-11,072	-17,350	-20,570	-21,820	-23,866	-2,045	-9.4	
OPEC .....	7,160	5,394	5,492	5,297	4,269	-1,029	-19.4	
Latin America .....	-7,622	-11,019	-10,961	-12,997	-14,625	-1,628	-12.5	
CBERA .....	1,659	1,858	1,414	1,686	1,631	-55	-3.3	
Asia .....	-34,159	-44,221	-40,272	-44,042	-44,900	-857	-1.9	
Sub-Saharan Africa .....	1,494	1,610	2,457	1,256	1,461	206	16.4	
Central and Eastern Europe .....	30	-159	-276	-453	-1,017	-564	-124.6	

<sup>1</sup>Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export.

Note.—Calculations based on unrounded data. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 2003.

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

**Table TE-2**  
**Leading changes in U.S. exports and imports of transportation equipment, 1999-2003**

Industry/commodity group	1999	2000	2001	2002	2003	Change, 2003 from 2002	
						Absolute	Percent
<i>Million dollars</i>							
<b>U.S. EXPORTS:</b>							
<b>Increases:</b>							
Motor vehicles (ET009) . . . . .	22,116	22,865	22,651	26,209	29,379	3,170	12.1
Miscellaneous vehicles and transportation-related equipment (ET012) . . . . .	2,759	2,939	2,658	2,725	3,187	462	16.9
Rail locomotive and rolling stock (ET008) . . . . .	1,558	1,336	1,422	1,006	1,386	381	37.8
<b>Decreases:</b>							
Aircraft, spacecraft, and related equipment (ET013) . .	47,762	39,696	42,535	41,447	37,835	-3,612	-8.7
<b>All other</b> . . . . .	71,521	76,557	75,059	73,268	71,160	-2,107	-2.9
<b>TOTAL</b> . . . . .	145,716	143,393	144,325	144,655	142,948	-1,707	-1.2
<b>U.S. IMPORTS:</b>							
<b>Increases:</b>							
Certain motor-vehicle parts (ET010) . . . . .	22,615	25,011	23,977	27,761	30,897	3,135	11.3
Internal combustion piston engines, other than for aircraft (ET002) . . . . .	14,052	15,532	13,657	14,841	16,250	1,409	9.5
Ships, tugs, pleasure boats, and similar vessels (ET014) . . . . .	1,246	1,223	1,411	1,413	1,932	519	36.8
<b>Decreases:</b>							
Aircraft engines and gas turbines (ET001) . . . . .	10,328	10,939	13,548	10,993	8,834	-2,159	-19.6
<b>All other</b> . . . . .	155,319	170,537	169,315	172,139	174,300	2,161	1.3
<b>TOTAL</b> . . . . .	203,560	223,242	221,907	227,147	232,212	5,065	2.2

Note.-Calculations based on unrounded data.

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

## COMMODITY ANALYSIS

### Aircraft, Spacecraft, and Related Equipment

#### *Change in 2003 from 2002:*

**U.S. trade surplus: Decreased by \$2.9 billion (12 percent) to \$20.9 billion**

**U.S. exports: Decreased by \$3.6 billion (9 percent) to \$37.8 billion**

**U.S. imports: Decreased by \$726 million (4 percent) to \$16.9 billion**

The U.S. trade surplus for aircraft, spacecraft, and related equipment declined primarily because of a sharp decline in U.S. exports. Decreased exports reflected diminished demand in certain markets for large civil aircraft (LCA). This reduced demand is attributable to the poor financial condition of the world's airlines, owing in part to the decrease in passenger air traffic. The decrease in passenger loads is owing to several factors including concerns over terrorism and contagious diseases such as Severe Acute Respiratory Syndrome and avian influenza. Over the past 5 years, the U.S. trade surplus has fluctuated downward as the market for LCA and parts, the principal goods in this trade, contracted because of the aforementioned concerns as well as increased U.S. imports of foreign LCA.

#### **U.S. exports**

U.S. exports of aircraft, spacecraft, and related equipment to Canada, China, and the EU fell in 2003, largely owing to the reduced need for new LCA, given the wide availability of used aircraft<sup>1</sup> and sustained lack of passenger demand for air travel. Taken together, U.S. exports to these markets declined by \$1.6 billion (to \$15.8 billion) and represented 42 percent of all such U.S. exports. The EU accounted for \$11.9 billion, about three-fourths of the total exports to these nations. However, Japan and Mexico increased their consumption of these U.S. goods in 2003 by \$989 million and \$283 million, respectively. The principal exports to Japan and Mexico were LCA; LCA shipments to Japan increased by \$1.1 billion (to \$2.5 billion), while Mexico imported an additional \$266 million worth of LCA, an increase of 885 percent.<sup>2</sup> Japan purchased some of these aircraft to replace their McDonnell Douglas MD11s, while Mexico's new aircraft will replace some of their aging DC9s.

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<sup>1</sup> As of December 14, 2003, there were 2,093 LCA in storage. Byron Callan, *Commercial Aerospace: Latest Parked Fleet Data - Still Stagnant* (New York: Merrill Lynch, Mar. 19, 2004), p. 3.

<sup>2</sup> Japan accepted 17 new Boeing aircraft, while Mexico took delivery of 5 aircraft. Boeing Commercial Airplanes Orders and Deliveries, found at <http://active.boeing.com/commercial/orders/>, retrieved Mar. 29, 2004.

## **Aircraft Engines, Other Gas Turbines, and Parts Thereof**

### ***Change in 2003 from 2002:***

**U.S. trade surplus: Increased by \$1.4 billion (31 percent) to \$5.9 billion**

**U.S. exports: Decreased by \$757 million (5 percent) to \$14.7 billion**

**U.S. imports: Decreased by \$2.2 billion (20 percent) to \$8.8 billion**

In 2003, the U.S. trade surplus in aircraft engines, other gas turbines, and parts increased because of a steep decline in all U.S. imports of aircraft turbine engine parts and large turbojet engines for aircraft. In addition to reduced U.S. shipments of large civil aircraft (LCA), the principal market for large turbojet engines, the active U.S. fleet has shrunk;<sup>3</sup> therefore, maintenance needs have declined, resulting in diminished demand for parts. Over the past 5 years, the U.S. trade surplus for aircraft engines, other gas turbines, and parts fluctuated for several reasons. First, rising production of foreign LCA increased sales and exports of U.S.-made engines. Second, declining fleet usage for airlines throughout the world led to a reduced demand for new engines. Finally, the decline in U.S. production of LCA reduced demand for both domestic- and foreign-built engines.

### **U.S. imports**

Canada, China, Japan, Mexico, and the EU accounted for \$8 billion (91 percent) of all U.S. imports of aircraft engines, other gas turbines, and parts; imports from these countries declined by \$2.1 billion (21 percent) from 2002.<sup>4</sup> In 2003, the largest dollar decline occurred between the EU and the United States and, as a result, bilateral trade between these partners declined by \$1.5 billion (21 percent) to \$5.6 billion. This decline is largely attributable to a significant drop in U.S. imports of large turbojet engines and parts for such engines from the EU, mirroring the decline in production of U.S. LCA. In addition, trade in used aircraft parts and engines may have also affected overall U.S. demand for imported engines and parts.

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<sup>3</sup> The number of passenger jet aircraft is estimated to have decreased by 120 in 2003. *FAA Aerospace Forecasts, Fiscal Years 2004-2015* (Washington, DC: U.S. Department of Transportation, Federal Aviation Administration, Mar. 2004), p. III-51.

<sup>4</sup> U.S. imports from subject countries amounted to \$10.1 billion in 2002. Compiled from official statistics of the U.S. Department of Commerce.

## Motor Vehicles<sup>5</sup>

### *Change in 2003 from 2002:*

**U.S. trade deficit: Decreased by \$2.1 billion (2 percent) to \$104.9 billion**

**U.S. exports: Increased by \$3.2 billion (12 percent) to \$29.4 billion**

**U.S. imports: Increased by \$1.0 billion (0.8 percent) to \$134.3 billion**

The U.S. trade deficit in motor vehicles was reduced in 2003, entirely owing to the 12-percent increase in U.S. exports.<sup>6</sup> However, U.S. motor vehicle production declined nearly 2 percent in 2003,<sup>7</sup> and U.S. vehicle sales declined 1 percent.<sup>8</sup> The most notable deficit decreases were with Canada and Japan whereas the deficit with the EU increased, despite a sizeable increase in U.S. vehicle exports to the EU. Motor vehicle exports showed steady growth during the 5-year period 1999-2003, aside from a slight decrease in 2001. Markets to which U.S. automakers expanded exports included Canada, Germany, Mexico, and more recently, the United Kingdom. However, the deficit fluctuated upward during 1999-2003, beginning the period at \$97.6 billion and reaching \$104.9 billion in 2003, as imports also followed an increasing 5-year trend particularly for popular nameplates from Germany, Korea, and the United Kingdom.

### **U.S. exports**

U.S. exports of motor vehicles continued to register an increase in 2003, of which Canada, the leading market for U.S. exports of motor vehicles, accounted for 59 percent of the growth in value for these exports. Although the value of U.S. exports to Canada increased 11 percent in 2003, the quantity of vehicle exports to Canada decreased 10 percent, indicating that fewer but more expensive vehicles were exported to Canada in 2003. In fact, sales of passenger vehicles in Canada declined by nearly 7 percent in 2003. The U.S. Big Three automakers (General Motors, Ford, and the Chrysler Division of DaimlerChrysler), combined, registered an 11-percent decline in Canadian market share by value, while Japanese automakers with production facilities in the United States increased their share.<sup>9</sup> The luxury vehicle segment is one of the fastest growing segments of the Canadian passenger car and light truck markets, and Japanese nameplate vehicles have the highest customer satisfaction and loyalty ratings.<sup>10</sup> U.S. motor vehicle exports to the second-leading market, the EU, accounted for 18 percent of the total. Exports to the EU increased 41 percent in 2003, with Germany accounting for 72 percent of these exports. These exports are largely shipments of Mercedes-Benz and BMW models that are produced only in the United States.<sup>11</sup>

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<sup>5</sup> This industry group includes passenger vehicles, trucks, and buses.

<sup>6</sup> Imports increased by a modest 0.8 percent in 2003.

<sup>7</sup> *Ward's Automotive Reports*, Jan. 12, 2004, p. 8.

<sup>8</sup> *Automotive News*, Jan. 12, 2004, p. 51.

<sup>9</sup> Bob English, "Incentives couldn't help Canada sales in 2003," *Automotive News*, Jan. 19, 2004, p. 42.

<sup>10</sup> Dennis DesRosiers, "Emerging Trends in the Automotive Sector," *Observations 2003*, vol. 17, issue 09, May 15, 2003, found at <http://www.desrosiers.ca/>, retrieved Apr. 21, 2004.

<sup>11</sup> *Ward's Automotive Yearbook 2003* (Southfield, MI: Ward's Communications, 2003), pp. 167 and 190.

## **Internal Combustion Piston Engines, Other Than for Aircraft**

### ***Change in 2003 from 2002:***

**U.S. trade deficit: Increased by \$1.7 billion (98 percent) to \$3.5 billion**

**U.S. exports: Decreased by \$329 million (3 percent) to \$12.7 billion**

**U.S. imports: Increased by \$1.4 billion (10 percent) to \$16.3 billion**

The trade deficit in motor-vehicle engines and related components nearly doubled to \$3.5 billion in 2003, in part as the result of increased foreign sourcing by U.S.-based vehicle producers from related operations. Similar to the larger automotive industry, trade shifts in the engine sector often reflect U.S. and foreign automotive firms' global production/sourcing strategies, intracompany shipments, vehicle model changes, and increased internationalization of the industry. Extensive U.S. industry linkages with counterparts in Canada, Mexico, Japan, and Germany contribute to their dominance of sector trade. These four countries accounted for 84 percent (\$13.6 billion) of U.S. imports and 74 percent (\$9.5 billion) of U.S. exports in 2003.

The NAFTA created a highly integrated North American motor vehicle industry, with NAFTA partners Canada and Mexico consistently ranking as leading U.S. trade partners. During 2002-03, U.S. imports of engines and related parts from Canada increased nearly 10 percent to \$3.8 billion, and imports from Mexico increased 15 percent to \$3.0 billion. Expansions of engine facilities in Canada by Ford<sup>12</sup> and increased sourcing of engine parts from Mexico,<sup>13</sup> for example, have contributed to this import increase. The sourcing of engines and related parts from facilities in Japan for the growing U.S. motor vehicle and engine output of Japanese transplants is one of the principal factors contributing to Japan's role as a leading trade partner in these products. Increased collaboration among U.S. vehicle makers in the development and production of motor-vehicle engines has also impacted bilateral trade in these products. U.S. imports from Japan remained fairly stable during the period, totaling nearly \$5 billion in 2003. The growth in sector imports from Germany is largely attributable to the increase in the number of models produced at U.S. vehicle assembly plants owned by BMW and Mercedes-Benz, which source engines from their operations in Germany. U.S. imports from Germany rose 13 percent in 2003 to \$1.8 billion.

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<sup>12</sup> "Ford V-8 Production Not Letting Up," *Ward's Automotive Reports*, May 8, 2003, p. 2.

<sup>13</sup> "Metaldyne Open to Low-Volume Engine Job," *Ward's Automotive Reports*, Feb. 3, 2003, p. 7.



## Certain Motor-Vehicle Parts<sup>14</sup>

### *Change in 2003 from 2002:*

**U.S. trade deficit: Increased by \$4.2 billion (375 percent) to \$5.3 billion**

**U.S. exports: Decreased by \$1.0 billion (4 percent) to \$25.6 billion**

**U.S. imports: Increased by \$3.1 billion (11 percent) to \$30.9 billion**

The trade deficit in certain motor-vehicle parts nearly quintupled to \$5.3 billion in 2003, as imports from leading suppliers with strong links to the U.S.-based motor-vehicle industry experienced further growth. The NAFTA continues to facilitate motor-vehicle parts trade within the North American industry, which in 2003 reported a 3-percent decline in motor vehicle production to 16.3 million units,<sup>15</sup> following a 5-percent rise in vehicle production in 2002. Producers in Canada and Mexico manufacture a wide variety of vehicle components that not only incorporate significant U.S. content, but are often used in the assembly of U.S.-made vehicles, contributing to large bilateral trade flows with the United States. Japan and Germany remain leading trade partners in vehicle components, in part because of the numerous Japanese and German transplants that incorporate motor-vehicle parts from their home supplier networks in their U.S.-produced motor vehicles.

### **U.S. imports**

The 11-percent increase in U.S. imports of motor-vehicle parts in 2003 was led by growth in miscellaneous motor-vehicle body parts (up 14 percent to \$6.4 billion), miscellaneous motor-vehicle parts (up 14 percent to \$5.0 billion), and gear boxes for passenger vehicles (up 12 percent to \$3.2 billion). Canada, Mexico, Japan, and Germany, which accounted for 80 percent of total U.S. imports of motor-vehicle parts, were the leading suppliers to the U.S. market.

NAFTA partners Canada and Mexico accounted for 52 percent of total U.S. imports of motor-vehicle parts in 2003, reflecting their critical role in the highly integrated North American automotive industry. U.S. imports from Canada increased 9 percent to \$10.6 billion during 2002-03, despite a stronger Canadian dollar. The motor-vehicle parts industry in Canada reportedly benefits from an emphasis on the manufacture of value-added components and a decade of investments in equipment and technology focused on productivity improvements,<sup>16</sup> as well as a 15-percent labor-cost advantage over its U.S. counterpart.<sup>17</sup> Imports from Mexico rose at a slower rate of 7 percent during the same period, to \$5.5 billion. According to industry sources, the continued depreciation of the Mexican peso compared with the U.S. dollar in 2003, and increased demand for replacement parts, boosted U.S. imports from Mexico.<sup>18</sup> Imports from Japan, the second leading supplier of U.S. motor-vehicle components with 23 percent of imports, increased 12 percent to \$7.1 billion. The large base of transplant producers from Japan in the United States manufacturing a greater volume of motor vehicles, increased efforts by component producers in Japan to diversify their customer base, and the relatively weak yen in 2003 contributed to the growth in the level of imports from Japan. The growth of U.S. imports from Germany,

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<sup>14</sup> This commodity group includes body stampings, bumpers, brakes and parts, gear boxes, axles, wheels, shock absorbers, radiators, exhaust systems, clutches, steering wheels, and miscellaneous parts and accessories.

<sup>15</sup> "North America Car and Truck Production," found at <http://www.autonews.com/images/dataCenter/1972.pdf>, retrieved Mar. 10, 2004.

<sup>16</sup> "Canadian Auto Report," Scotia Economics, Feb. 27, 2004, found at <http://www.scotiabank.com>, retrieved Mar. 10, 2004.

<sup>17</sup> AutoBriefs, Mar. 5, 2004, electronic newspaper published by KPMG Corporate Finance Inc., p. 1.

<sup>18</sup> "Mexico's Auto Parts Exports to Get Boost From Weak Peso," *The AutoParts Report*, Mar. 19, 2003, p. 4.

which increased 31 percent to \$1.6 billion in 2003, reflects sourcing from component suppliers in Germany for the expanding U.S.-based vehicle assembly plants of BMW and Mercedes-Benz.

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Table TE-3

Transportation equipment : U.S. trade for industry/commodity groups and subgroups, 1999-2003<sup>1</sup>

USITC code <sup>2</sup>	Industry/commodity group	1999	2000	2001	2002	2003	Change, 2003 from 2002	
							Absolute	Percent
<i>Million dollars</i>								
ET001	Aircraft engines and gas turbines:							
	Exports .....	14,218	15,011	16,524	15,498	14,742	-757	-4.9
	Imports .....	10,328	10,939	13,548	10,993	8,834	-2,159	-19.6
	Trade balance .....	3,889	4,072	2,976	4,505	5,907	1,402	31.1
ET002	Internal combustion piston engines, other than for aircraft:							
	Exports .....	12,522	13,808	12,408	13,069	12,741	-329	-2.5
	Imports .....	14,052	15,532	13,657	14,841	16,250	1,409	9.5
	Trade balance .....	-1,530	-1,724	-1,249	-1,771	-3,509	-1,738	-98.1
ET003	Forklift trucks and similar industrial vehicles:							
	Exports .....	1,243	1,332	1,341	1,090	1,028	-62	-5.7
	Imports .....	1,527	1,668	1,423	1,266	1,408	142	11.2
	Trade balance .....	-284	-337	-82	-176	-381	-205	-116.1
ET004	Construction and mining equipment:							
	Exports .....	8,646	9,507	9,903	9,504	9,461	-43	-0.4
	Imports .....	5,919	5,643	5,260	5,302	5,904	602	11.4
	Trade balance .....	2,727	3,864	4,643	4,202	3,557	-645	-15.3
ET005	Ball and rollers bearings:							
	Exports .....	1,098	1,242	1,197	1,249	1,320	71	5.7
	Imports .....	1,622	1,804	1,579	1,598	1,680	82	5.1
	Trade balance .....	-524	-562	-381	-349	-360	-11	-3.1
ET006	Primary cells and batteries and electric storage batteries:							
	Exports .....	2,307	2,655	2,270	1,807	1,786	-21	-1.1
	Imports .....	2,392	2,656	2,342	2,196	2,175	-21	-0.9
	Trade balance .....	-84	-1	-72	-389	-389	( <sup>3</sup> )	( <sup>4</sup> )
ET007	Ignition, starting, lighting, and other electrical equipment:							
	Exports .....	1,947	1,986	1,824	1,894	1,822	-72	-3.8
	Imports .....	2,817	3,076	3,052	3,467	3,858	391	11.3
	Trade balance .....	-870	-1,090	-1,228	-1,574	-2,036	-462	-29.4
ET008	Rail locomotive and rolling stock:							
	Exports .....	1,558	1,336	1,422	1,006	1,386	381	37.8
	Imports .....	2,307	1,828	1,357	1,039	1,105	65	6.3
	Trade balance .....	-749	-492	65	-33	282	315	( <sup>5</sup> )
ET009	Motor vehicles:							
	Exports .....	22,116	22,865	22,651	26,209	29,379	3,170	12.1
	Imports .....	119,675	129,568	127,257	133,264	134,286	1,022	0.8
	Trade balance .....	-97,559	-106,703	-104,606	-107,054	-104,907	2,148	2.0
ET010	Certain motor-vehicle parts:							
	Exports .....	26,997	28,917	26,521	26,651	25,625	-1,027	-3.9
	Imports .....	22,615	25,011	23,977	27,761	30,897	3,135	11.3
	Trade balance .....	4,382	3,907	2,544	-1,110	-5,272	-4,162	-374.9
ET011	Motorcycles, mopeds, and parts:							
	Exports .....	468	563	742	793	864	71	8.9
	Imports .....	1,755	2,519	2,870	2,927	3,213	286	9.8
	Trade balance .....	-1,287	-1,956	-2,128	-2,134	-2,349	-216	-10.1

See footnote(s) at end of table.

Table TE-3--Continued

Transportation equipment : U.S. trade for industry/commodity groups and subgroups, 1999-2003<sup>1</sup>

USITC code <sup>2</sup>	Industry/commodity group	1999	2000	2001	2002	2003	Change, 2003 from 2002	
							Absolute	Percent
<i>Million dollars</i>								
ET012	Miscellaneous vehicles and transportation-related equipment:							
	Exports .....	2,759	2,939	2,658	2,725	3,187	462	16.9
	Imports .....	2,056	2,982	2,364	2,744	2,926	182	6.6
	Trade balance .....	703	-43	293	-19	261	279	( <sup>3</sup> )
ET013	Aircraft, spacecraft, and related equipment:							
	Exports .....	47,762	39,696	42,535	41,447	37,835	-3,612	-8.7
	Imports .....	14,592	18,019	21,027	17,636	16,910	-726	-4.1
	Trade balance .....	33,171	21,677	21,508	23,811	20,924	-2,886	-12.1
ET014	Ships, tugs, pleasure boats, and similar vessels:							
	Exports .....	1,682	1,083	1,820	1,234	1,195	-39	-3.1
	Imports .....	1,246	1,223	1,411	1,413	1,932	519	36.8
	Trade balance .....	437	-140	410	-179	-736	-558	-312.3
ET015	Motors and engines, except internal combustion, aircraft, or electric:							
	Exports .....	394	453	508	479	578	99	20.7
	Imports .....	658	772	784	700	834	134	19.1
	Trade balance .....	-264	-319	-276	-221	-256	-35	-15.8

<sup>1</sup>Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export.

<sup>2</sup>This coding system is used by the U.S. International Trade Commission to identify major groupings and subgroupings of HTS import and export items for trade monitoring purposes

<sup>3</sup>Less than \$500,000.

<sup>4</sup>Less than 0.05 percent.

<sup>5</sup>Not meaningful for purposes of comparison.

Note.—Calculations based on unrounded data.

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

Table TE-4

## Transportation equipment sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1999-2003

USITC code	Industry/commodity group	1999	2000	2001	2002	2003	Percent change, 2003 from 2002
ET001	Aircraft engines and gas turbines:						
	Number of establishments . . . . .	28	28	27	27	25	-7.4
	Employees (thousands) . . . . .	110.0	103.0	109.0	99.0	94.0	-5.1
	Capacity utilization (percent) . . . . .	( <sup>1</sup> )	( <sup>1</sup> )	80	75	75	0.0
	U.S. shipments (million dollars) . . . . .	26,642	29,226	35,051	45,000	40,996	-8.9
	U.S. exports (million dollars) . . . . .	14,218	15,011	16,524	15,498	14,742	-4.9
	U.S. imports (million dollars) . . . . .	10,328	10,939	13,548	10,993	8,834	-19.6
	Apparent U.S. consumption (million dollars) . . . . .	22,753	25,154	32,075	40,495	35,089	-13.3
	Trade balance (million dollars) . . . . .	3,889	4,072	2,976	4,505	5,907	31.1
	Ratio of imports to consumption (percent) . . . . .	45.4	43.5	42.2	27.1	25.2	-7.0
	Ratio of exports to shipments (percent) . . . . .	53.4	51.4	47.1	34.4	36.0	4.7
ET002	Internal combustion piston engines, other than for aircraft:						
	Number of establishments . . . . .	1,500	1,500	1,450	1,450	1,450	0.0
	Employees (thousands) . . . . .	157.0	157.0	156.0	155.0	150.0	-3.2
	Capacity utilization (percent) . . . . .	83	75	75	78	( <sup>2</sup> )	( <sup>2</sup> )
	U.S. shipments (million dollars) . . . . .	54,000	54,000	48,000	50,500	49,000	-3.0
	U.S. exports (million dollars) . . . . .	12,522	13,808	12,408	13,069	12,741	-2.5
	U.S. imports (million dollars) . . . . .	14,052	15,532	13,657	14,841	16,250	9.5
	Apparent U.S. consumption (million dollars) . . . . .	55,530	55,724	49,249	52,271	52,509	0.5
	Trade balance (million dollars) . . . . .	-1,530	-1,724	-1,249	-1,771	-3,509	-98.1
	Ratio of imports to consumption (percent) . . . . .	25.3	27.9	27.7	28.4	30.9	8.8
	Ratio of exports to shipments (percent) . . . . .	23.2	25.6	25.9	25.9	26.0	( <sup>3</sup> )
ET003	Forklift trucks and similar industrial vehicles:						
	Number of establishments . . . . .	453	451	451	450	448	-0.4
	Employees (thousands) . . . . .	27.0	26.0	26.0	25.0	24.0	-4.0
	Capacity utilization (percent) . . . . .	67	64	60	60	58	-3.3
	U.S. shipments (million dollars) . . . . .	5,155	5,493	4,763	4,525	4,072	-10.0
	U.S. exports (million dollars) . . . . .	1,243	1,332	1,341	1,090	1,028	-5.7
	U.S. imports (million dollars) . . . . .	1,527	1,668	1,423	1,266	1,408	11.2
	Apparent U.S. consumption (million dollars) . . . . .	5,439	5,830	4,845	4,701	4,453	-5.3
	Trade balance (million dollars) . . . . .	-284	-337	-82	-176	-381	-116.1
	Ratio of imports to consumption (percent) . . . . .	28.1	28.6	29.4	26.9	31.6	17.5
	Ratio of exports to shipments (percent) . . . . .	24.1	24.2	28.2	24.1	25.2	4.6

See footnote(s) at end of table.

**Table TE-4—Continued**

**Transportation equipment sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1999-2003**

USITC code	Industry/commodity group	1999	2000	2001	2002	2003	Percent change, 2003 from 2002
ET004	Construction and mining equipment:						
	Number of establishments . . . . .	1,664	1,667	1,655	1,655	1,650	-0.3
	Employees (thousands) . . . . .	140.0	137.0	130.0	130.0	128.0	-1.5
	Capacity utilization (percent) . . . . .	63	61	59	58	57	-1.7
	U.S. shipments (million dollars) . . . . .	25,783	26,112	25,169	23,911	21,520	-10.0
	U.S. exports (million dollars) . . . . .	8,646	9,507	9,903	9,504	9,461	-0.4
	U.S. imports (million dollars) . . . . .	5,919	5,643	5,260	5,302	5,904	11.4
	Apparent U.S. consumption (million dollars) . . . . .	23,056	22,248	20,526	19,709	17,963	-8.9
	Trade balance (million dollars) . . . . .	2,727	3,864	4,643	4,202	3,557	-15.3
	Ratio of imports to consumption (percent) . . . . .	25.7	25.4	25.6	26.9	32.9	22.3
	Ratio of exports to shipments (percent) . . . . .	33.5	36.4	39.3	39.7	44.0	10.8
ET005	Ball and rollers bearings:						
	Number of establishments . . . . .	183	183	183	181	181	0.0
	Employees (thousands) . . . . .	37.0	36.0	36.0	35.0	35.0	0.0
	Capacity utilization (percent) . . . . .	80	73	74	62	64	3.2
	U.S. shipments (million dollars) . . . . .	6,331	6,500	5,766	5,881	6,175	5.0
	U.S. exports (million dollars) . . . . .	1,098	1,242	1,197	1,249	1,320	5.7
	U.S. imports (million dollars) . . . . .	1,622	1,804	1,579	1,598	1,680	5.1
	Apparent U.S. consumption (million dollars) . . . . .	6,855	7,062	6,147	6,230	6,535	4.9
	Trade balance (million dollars) . . . . .	-524	-562	-381	-349	-360	-3.1
	Ratio of imports to consumption (percent) . . . . .	23.7	25.5	25.7	25.6	25.7	( <sup>3</sup> )
	Ratio of exports to shipments (percent) . . . . .	17.3	19.1	20.8	21.2	21.4	0.9
ET006	Primary cells and batteries and electric storage batteries:						
	Number of establishments . . . . .	180	180	170	165	165	0.0
	Employees (thousands) . . . . .	32.0	32.0	30.0	28.0	28.0	0.0
	Capacity utilization (percent) . . . . .	81	71	71	75	( <sup>2</sup> )	( <sup>2</sup> )
	U.S. shipments (million dollars) . . . . .	7,600	7,800	7,000	7,350	7,100	-3.4
	U.S. exports (million dollars) . . . . .	2,307	2,655	2,270	1,807	1,786	-1.1
	U.S. imports (million dollars) . . . . .	2,392	2,656	2,342	2,196	2,175	-0.9
	Apparent U.S. consumption (million dollars) . . . . .	7,684	7,801	7,072	7,739	7,489	-3.2
	Trade balance (million dollars) . . . . .	-84	-1	-72	-389	-389	0.0
	Ratio of imports to consumption (percent) . . . . .	31.1	34.0	33.1	28.4	29.0	2.1
	Ratio of exports to shipments (percent) . . . . .	30.4	34.0	32.4	24.6	25.2	2.4

See footnote(s) at end of table.

**Table TE-4—Continued**

**Transportation equipment sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1999-2003**

USITC code	Industry/commodity group	1999	2000	2001	2002	2003	Percent change, 2003 from 2002
ET007	Ignition, starting, lighting, and other electrical equipment:						
	Number of establishments . . . . .	700	700	670	670	670	0.0
	Employees (thousands) . . . . .	77.0	80.0	80.0	80.0	80.0	0.0
	Capacity utilization (percent) . . . . .	79	73	73	75	( <sup>2</sup> )	( <sup>2</sup> )
	U.S. shipments (million dollars) . . . . .	17,600	17,500	15,600	16,400	15,900	-3.0
	U.S. exports (million dollars) . . . . .	1,947	1,986	1,824	1,894	1,822	-3.8
	U.S. imports (million dollars) . . . . .	2,817	3,076	3,052	3,467	3,858	11.3
	Apparent U.S. consumption (million dollars) . . . . .	18,470	18,590	16,828	17,974	17,936	-0.2
	Trade balance (million dollars) . . . . .	-870	-1,090	-1,228	-1,574	-2,036	-29.4
	Ratio of imports to consumption (percent) . . . . .	15.3	16.5	18.1	19.3	21.5	11.4
	Ratio of exports to shipments (percent) . . . . .	11.1	11.3	11.7	11.5	11.5	0.0
ET008	Rail locomotive and rolling stock:						
	Number of establishments . . . . .	190	190	180	180	180	0.0
	Employees (thousands) . . . . .	32.0	30.0	26.0	27.0	27.0	0.0
	Capacity utilization (percent) . . . . .	76	69	65	65	70	7.7
	U.S. shipments (million dollars) . . . . .	7,600	7,400	4,500	4,500	4,700	4.4
	U.S. exports (million dollars) . . . . .	1,558	1,336	1,422	1,006	1,386	37.8
	U.S. imports (million dollars) . . . . .	2,307	1,828	1,357	1,039	1,105	6.3
	Apparent U.S. consumption (million dollars) . . . . .	8,349	7,892	4,435	4,533	4,418	-2.5
	Trade balance (million dollars) . . . . .	-749	-492	65	-33	282	( <sup>4</sup> )
	Ratio of imports to consumption (percent) . . . . .	27.6	23.2	30.6	22.9	25.0	9.2
	Ratio of exports to shipments (percent) . . . . .	20.5	18.0	31.6	22.4	29.5	31.7
ET009	Motor vehicles:						
	Number of establishments . . . . .	1,290	1,295	1,300	1,305	1,307	( <sup>3</sup> )
	Employees (thousands) . . . . .	291.0	291.0	279.0	265.0	275.0	3.8
	Capacity utilization (percent) . . . . .	96	95	84	85	85	0.0
	U.S. shipments (million dollars) . . . . .	279,018	251,031	227,002	242,892	238,034	-2.0
	U.S. exports (million dollars) . . . . .	22,116	22,865	22,651	26,209	29,379	12.1
	U.S. imports (million dollars) . . . . .	119,675	129,568	127,257	133,264	134,286	0.8
	Apparent U.S. consumption (million dollars) . . . . .	376,577	357,734	331,608	349,946	342,941	-2.0
	Trade balance (million dollars) . . . . .	-97,559	-106,703	-104,606	-107,054	-104,907	2.0
	Ratio of imports to consumption (percent) . . . . .	31.8	36.2	38.4	38.1	39.2	2.9
	Ratio of exports to shipments (percent) . . . . .	7.9	9.1	10.0	10.8	12.3	13.9

See footnote(s) at end of table.

**Table TE-4—Continued**

**Transportation equipment sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1999-2003**

USITC code	Industry/commodity group	1999	2000	2001	2002	2003	Percent change, 2003 from 2002
ET010	Certain motor-vehicle parts:						
	Number of establishments . . . . .	3,300	3,300	3,150	3,125	3,125	0.0
	Employees (thousands) . . . . .	550.0	550.0	545.0	525.0	525.0	0.0
	Capacity utilization (percent) . . . . .	81	75	75	80	( <sup>2</sup> )	( <sup>2</sup> )
	U.S. shipments (million dollars) . . . . .	135,000	137,000	122,000	128,000	124,000	-3.1
	U.S. exports (million dollars) . . . . .	26,997	28,917	26,521	26,651	25,625	-3.9
	U.S. imports (million dollars) . . . . .	22,615	25,011	23,977	27,761	30,897	11.3
	Apparent U.S. consumption (million dollars) . . . . .	130,618	133,093	119,456	129,110	129,272	( <sup>3</sup> )
	Trade balance (million dollars) . . . . .	4,382	3,907	2,544	-1,110	-5,272	-374.9
	Ratio of imports to consumption (percent) . . . . .	17.3	18.8	20.1	21.5	23.9	11.2
	Ratio of exports to shipments (percent) . . . . .	20.0	21.1	21.7	20.8	20.7	-0.5
ET011	Motorcycles, mopeds, and parts:						
	Number of establishments . . . . .	50	55	60	60	60	0.0
	Employees (thousands) . . . . .	9.0	10.0	11.0	12.0	12.0	0.0
	Capacity utilization (percent) . . . . .	90	85	85	85	85	0.0
	U.S. shipments (million dollars) . . . . .	3,000	3,500	4,200	5,000	5,500	10.0
	U.S. exports (million dollars) . . . . .	468	563	742	793	864	8.9
	U.S. imports (million dollars) . . . . .	1,755	2,519	2,870	2,927	3,213	9.8
	Apparent U.S. consumption (million dollars) . . . . .	4,287	5,456	6,328	7,134	7,849	10.0
	Trade balance (million dollars) . . . . .	-1,287	-1,956	-2,128	-2,134	-2,349	-10.1
	Ratio of imports to consumption (percent) . . . . .	40.9	46.2	45.3	41.0	40.9	-0.2
	Ratio of exports to shipments (percent) . . . . .	15.6	16.1	17.7	15.9	15.7	-1.3
ET012	Miscellaneous vehicles and transportation-related equipment:						
	Number of establishments . . . . .	1,203	1,203	1,210	1,213	1,217	( <sup>3</sup> )
	Employees (thousands) . . . . .	61.0	61.0	62.0	64.0	65.0	1.6
	Capacity utilization (percent) . . . . .	67	58	60	64	65	1.6
	U.S. shipments (million dollars) . . . . .	13,830	14,092	14,205	14,915	15,959	7.0
	U.S. exports (million dollars) . . . . .	2,759	2,939	2,658	2,725	3,187	16.9
	U.S. imports (million dollars) . . . . .	2,056	2,982	2,364	2,744	2,926	6.6
	Apparent U.S. consumption (million dollars) . . . . .	13,127	14,135	13,912	14,934	15,698	5.1
	Trade balance (million dollars) . . . . .	703	-43	293	-19	261	( <sup>4</sup> )
	Ratio of imports to consumption (percent) . . . . .	15.7	21.1	17.0	18.4	18.6	1.1
	Ratio of exports to shipments (percent) . . . . .	19.9	20.9	18.7	18.3	20.0	9.3

See footnote(s) at end of table.



**Table TE-4—Continued**

**Transportation equipment sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1999-2003**

<b>USITC code</b>	<b>Industry/commodity group</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>Percent change, 2003 from 2002</b>
ET013	Aircraft, spacecraft, and related equipment:						
	Number of establishments . . . . .	230	230	200	210	200	-4.8
	Employees (thousands) . . . . .	413.0	383.0	381.0	349.0	316.0	-9.5
	Capacity utilization (percent) . . . . .	95	90	75	75	80	6.7
	U.S. shipments (million dollars) . . . . .	73,693	61,868	64,765	54,194	48,916	-9.7
	U.S. exports (million dollars) . . . . .	47,762	39,696	42,535	41,447	37,835	-8.7
	U.S. imports (million dollars) . . . . .	14,592	18,019	21,027	17,636	16,910	-4.1
	Apparent U.S. consumption (million dollars) . . . .	40,522	40,191	43,257	30,383	27,992	-7.9
	Trade balance (million dollars) . . . . .	33,171	21,677	21,508	23,811	20,924	-12.1
	Ratio of imports to consumption (percent) . . . . .	36.0	44.8	48.6	58.0	60.4	4.1
	Ratio of exports to shipments (percent) . . . . .	64.8	64.2	65.7	76.5	77.3	1.0
ET014	Ships, tugs, pleasure boats, and similar vessels:						
	Number of establishments . . . . .	1,600	1,600	1,600	1,600	1,600	0.0
	Employees (thousands) . . . . .	113.0	119.0	112.0	113.0	115.0	1.8
	Capacity utilization (percent) . . . . .	55	56	56	57	60	5.3
	U.S. shipments (million dollars) . . . . .	14,200	15,200	14,000	14,100	14,300	1.4
	U.S. exports (million dollars) . . . . .	1,682	1,083	1,820	1,234	1,195	-3.1
	U.S. imports (million dollars) . . . . .	1,246	1,223	1,411	1,413	1,932	36.8
	Apparent U.S. consumption (million dollars) . . . .	13,763	15,340	13,590	14,279	15,036	5.3
	Trade balance (million dollars) . . . . .	437	-140	410	-179	-736	-312.3
	Ratio of imports to consumption (percent) . . . . .	9.1	8.0	10.4	9.9	12.8	29.3
	Ratio of exports to shipments (percent) . . . . .	11.8	7.1	13.0	8.8	8.4	-4.5

See footnote(s) at end of table.

**Table TE-4—Continued**

**Transportation equipment sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1999-2003**

USITC code	Industry/commodity group	1999	2000	2001	2002	2003	Percent change, 2003 from 2002
ET015	Motors and engines, except internal combustion, aircraft, or electric:						
	Number of establishments . . . . .	350	350	335	335	335	0.0
	Employees (thousands) . . . . .	40.0	40.0	40.0	40.0	40.0	0.0
	Capacity utilization (percent) . . . . .	72	68	68	70	<sup>(2)</sup>	<sup>(2)</sup>
	U.S. shipments (million dollars) . . . . .	6,500	7,000	6,300	6,600	6,400	-3.0
	U.S. exports (million dollars) . . . . .	394	453	508	479	578	20.7
	U.S. imports (million dollars) . . . . .	658	772	784	700	834	19.1
	Apparent U.S. consumption (million dollars) . . . .	6,764	7,319	6,576	6,821	6,656	-2.4
	Trade balance (million dollars) . . . . .	-264	-319	-276	-221	-256	-15.8
	Ratio of imports to consumption (percent) . . . . .	9.7	10.6	11.9	10.3	12.5	21.4
	Ratio of exports to shipments (percent) . . . . .	6.1	6.5	8.1	7.3	9.0	23.3

<sup>1</sup>Capacity utilization could not be meaningfully calculated for this industry.

<sup>2</sup>Not available.

<sup>3</sup>Less than 0.05 percent.

<sup>4</sup>Not meaningful.

Note.—Calculations based on unrounded data.

Source: These data have been estimated by the Commission's international trade analysts on the basis of primary and secondary data sources including discussions with various Government and industry contacts. These estimated data are subject to change either from secondary sources or from detailed surveys the Commission often conducts in the course of statutory investigations or other work. Further, these data may undergo adjustments based on revisions in tariff nomenclature, classification practices, or redefinitions of industry classes.