U.S. Automotive Parts Industry 2004 Annual Assessment

Automotive Team
Office of Aerospace and Automotive Industries
International Trade Administration
U.S. Department of Commerce
May 2004

U.S. Automotive Parts
Industry Assessment

Automotive Team
Office of Aerospace and Automotive Industries
International Trade Administration
U.S. Department of Commerce

May 2004

Executive Summary

The outlook for the U.S. automotive parts industry is positive for at least the next couple of years. Economic indicators are rebounding favorably, and both domestic light vehicle production and new vehicle sales are expected to grow between 3 percent and 4 percent by the end of 2005 – bolstered by the introduction of many new, locally assembled models. These are good harbingers for the automotive parts industry. On the negative side, the industry can expect more suppliers to depart as their profit margins are squeezed by vehicle manufacturers' demands for price cuts, by price increases for raw materials, and by increased competition from suppliers in low labor-cost countries.

Production

- Industry production in 2002 is expected to have shown little change compared to 2001, buoyed by strong vehicle sales in a weakened economy. 2003 probably yielded a slight increase in both production and sales of automotive parts as vehicle production and sales were strong. Industry analysts predict that 2004 and 2005 will continue to be good years for the automotive industry.

- The Bureau of Labor Statistics (BLS), U.S. Department of Labor, reported 768,000 jobs in the automotive parts industry in 2003. This is a decrease of 4 percent from the 801,900 jobs in 2002. The last time that jobs increased in automotive parts industry occurred in 2000, when jobs grew 0.3 percent to 920,300. Employment in the industry fell to 850,200 in 2001.

- The domestic automotive industry represents 5 percent of all U.S. employment and employs nearly 6 percent of all scientists and engineers.

Sales

- North American original equipment (OE) sales for the top 150 suppliers reached $185.3 billion in 2003. This was an increase of 2 percent from 2002 and a much smaller increase than the 9.5 percent increase to $182.1 billion in 2002 from $166.4 billion in 2001.

- Suppliers prepared for declines in automotive sales and production, by diversifying geographically, increasing research and development, turning to joint ventures, seeking more module (complete systems, not just components) contracts, and leaving marginal segments.

- The U.S. automotive aftermarket retail sales is believed to have reached $182 billion in 2003, a 5.6 percent increase from 2002 levels of $172 billion.

International Trade

- The global consumption of automotive parts was estimated to be about $900 billion in 2003 and will increase to $1.1 trillion by 2010.

- U.S. exports of automotive parts in 2003 were $48.5 billion, a decrease of 3.2 percent over 2002 levels, according to U.S. Census data. This is about 19 percent of the world's automotive parts exports.

- U.S. automotive parts exports to Canada and Mexico accounted for 78 percent of the total automotive parts exports in 2003.

- U.S. imports of automotive parts were $74.5 billion in 2003, an increase of 7.8 percent over 2002 levels.

- The United States imported $39.6 billion worth of automotive parts from Mexico and Canada in 2002. These imports accounted for 53 percent of the total U.S. automotive parts imports.

- The U.S. trade deficit in automotive parts increased to $26.0 billion in 2003, a 36.7 percent increase over $19.0 billion in 2002. This is the largest trade deficit in U.S. automotive parts in history.

Industry Issues

- Despite the lifting of the steel safeguards, prices of steel have not declined. The continued high prices of steel continue to have suppliers concerned as profit margins are squeezed by high raw material costs and price- and cost-cut demands from automakers.

- Industry analysts speculate that, of nearly 800 major suppliers in 2000, fewer than 100 will be left by 2010 as a result of bankruptcies, mergers and acquisitions, and migration to other industries.

- There has been a decline of the number of mergers and acquisitions from 63 in 1998 to 41 in 2001. Between 2000 and 2003, the number of mergers per year has been relatively stable, but the size of the value of mergers and acquisitions dropped 92 percent from $6.7 billion in 2000 to $517.8 million in 2001.

- There is concern among some industry representatives and analysts about the current business model and relationship between vehicle assemblers and suppliers that is driving down the already low profit margins of the suppliers.

Summary

The outlook for the U.S. automotive parts industry is positive for at least the next couple of years. Economic indicators are rebounding favorably, and both domestic light vehicle production and new vehicle sales are expected to grow between 3 percent and 4 percent by the end of 2005 – bolstered by the introduction of many new, locally assembled models. These are good harbingers for the automotive parts industry. On the negative side, the industry can expect more suppliers to depart as their profit margins are squeezed by vehicle manufacturers' demands for price cuts, by price increases for raw materials, and by increased competition from suppliers in low labor-cost countries.

Industry surveys conducted by consulting firms found that industry executives expect 2004 to be a better year for profits, but the executives don't expect a full-turnaround in the automotive industry until 2006. However, industry experts also expect that domestic manufacturers will continue to lose market share to imports. U.S. vehicle manufacturers struggled in 2003 to make profits on cars and trucks, cutting costs and offering incentives to maintain sales. These cost cuts and incentives affect the suppliers, from whom automakers continue to demand cost cuts.

The automotive parts industry experienced heavy growth in the late 1990s, during a period of strong U.S. economic growth and robust auto sales. However, as the economy took a downswing at the beginning of the twenty-first century, so did the automotive parts industry, which experienced slow growth in production and a decrease in exports. In 2003, the U.S. economy rebounded, helping the automotive parts industry to rebound as well, particularly for aftermarket sales.

Definition

Automotive parts are defined as either Original Equipment (OE), and Aftermarket parts. Original equipment are parts that go into the assembly of a motor vehicle (automobile, light truck, or truck) or are purchased by the assembler for its service network and referred to as OES parts. Suppliers of OE parts are broken into three tiers. The first tier are the "Tier 1" suppliers, who sell finished components directly to the vehicle manufacturer. The next tier are "Tier 2" suppliers, who sell parts and materials for the finished components to the Tier 1 suppliers. The third tier are "Tier 3" suppliers who supply raw materials to any of the above suppliers or vehicle assemblers. There is often overlap between the tiers.

Aftermarket parts are broken into two categories: replacement parts and accessories. Replacement parts are automotive parts built or rebuilt to replace OE parts as they become worn or damaged. Accessories are parts made for comfort, convenience, safety, or customization, and are designed for add-on after the original sale of the motor vehicle.

The North American Industry Classification (NAIC) codes used by the International Trade Administration (ITA) of the U.S. Department of Commerce to identify automotive parts are:

336211	Motor Vehicle Body Manufacturing
336311	Carburetor, Piston, Piston Ring, and Valve Manufacturing
336312	Gasoline Engine and Engine Parts Manufacturing
336321	Vehicular Lighting Equipment Manufacturing
336322	Other Motor Vehicle Electrical and Electronic Equipment Manufacturing
336330	Motor Vehicle Steering and Suspension Components
336340	Motor Vehicle Brake System Manufacturing
336350	Motor Vehicle Transmission and Powertrain Parts Manufacturing
336360	Motor Vehicle Seating and Interior Trim Manufacturing
336370	Motor Vehicle Metal Stamping
336391	Motor Vehicle Air-Conditioning Manufacturing
336399	All Other Motor Vehicle Parts Manufacturing

The NAIC codes for tires and tubes (326211 and 326212) and storage battery manufacturing (335911) are not included in the ITA NAIC code definition of automotive parts, because they are not broken out to a level identifying only those meant for motor vehicle use. However, tires, tubes, and storage batteries for automotive use are part of the Office of Automotive Affairs' Harmonized Tariff System (HTS) trade definition (See Appendix 1).

Other definitions used in this report include product lists from Standard Industry Classification (SIC) system and Harmonized Tariff Schedule (HTS) system. These codes are found in Appendix 1.

Economic Overview

The U.S. automotive parts industry has long played a vital, yet often underestimated, role in the U.S. economy. Naturally, the automotive parts industry is directly affected by the state of the motor vehicle industry, a key element in the country's Gross Domestic Product (GDP) (Charts 1 and 2).

U.S. production of light vehicles was 11.8 million units in 2003, a decline from 12 million units produced in 2002. The record high production of light vehicles was in 1999 with 12.6 million units.

Almost all economic variables, such as real GDP growth per capita, real disposable income growth per capita, and employment growth are forecast to improve in 2004. Historically, the automotive sector closely tracks these economic indicators, in part because the automotive sector is a major component of these indicators. There are some worrisome indicators on the horizon, however. The large U.S. deficit is troubling because, traditionally, large deficits have resulted in higher interest rates. Unfortunately, consumers have high debt loads making them very sensitive to interest rates. Additionally, there are structural variables negatively influencing vehicle sales, including lower scrappage

rates of vehicles reducing replacement demand; lower used vehicle prices, resulting in a reduction in the equity consumers have in their trade-in; and escalating operating costs. [1]

According to the most recent Annual Survey of Manufacturers (with data through 2001), auto parts industry shipments of $191 billion accounted for 4.8 percent of total U.S. manufacturing shipments (Tables 1 and 2). This is one of the highest percentage shares of any single U.S. industry. However, this figure reflects a decrease of 0.3 percentage points from the 5.1 percentage share held by automotive parts industry shipments in 1999. The industry employment in CY 2001 accounted for 4.9 percent of total manufacturing employment. The U.S. automotive parts industry is also one of the largest U.S. exporters, accounting for 6.7 percent of total U.S. merchandise exports in 2003 (Table 3).

ITA and industry associations estimate that original equipment parts account for between 67-75 percent of total automotive parts production and that aftermarket equipment accounts for between 25-33 percent. It is difficult to estimate exact percentages in terms of sales because the prices paid by vehicle assemblers for original equipment parts are not comparable to prices paid by automotive consumers. Vehicle manufacturers are able to negotiate price contracts with parts suppliers on original equipment, while vehicle owners most often pay retail for automotive parts.

The Original Equipment Suppliers Association (OESA) reported that the worldwide market for Original Equipment (OE) automotive parts declined 6.4 percent from $787.6 billion in 2000 to $740.2 billion in 2001[2] (Table 4). This is the second year OE parts experienced a decline from a high of $812 billion in 1999. A recent study by the OESA and RolandBerger Consultants[3] estimates that the world market for OE auto parts will increase at a compound average growth rate of 3.4 percent per year between 2003 and 2010, reaching $1.1 trillion. The U.S. market represented about 23 percent of total consumption in 2003, $200 billion. U.S. consumption probably will grow at a compound average growth rate of 2 percent, reaching $220 billion, equal to 20 percent of total world consumption. Although U.S. OE output will increase in absolute terms, the study predicts that the U.S. share of global OE production will decline at a 2.8 percent compound average growth rate, falling from a 22 percent share to 18 percent in 2010.

The actual value of parts per-vehicle also declined from $14,053 in 1999 to $13,242 in 2000 and $12,892 in 2001. OESA reported that this reflects a number of factors including greater global competition among parts suppliers, increased economies of scale, and cost cuts demanded by vehicle manufacturers. The Asia-Pacific region, Europe, and North America each accounted for just under $250 billion of the global OE market in 2001. Combined, the three regions account for roughly 95 percent of the global market for OE parts.

---

[1] Des Roissers, 2/15/04

[2] Original Equipment Suppliers Association, Industry Review 2002, p. 100.

[3] "Odyssey of the Auto Industry," presented before the SAE World Congress, March 8, 2004.

Production

The U.S. auto industry expects record sales in the next couple of years and expects to deliver 18 million vehicles for the first time in history by 2006-2007 if the United States can continue to experience manufacturing recovery, job growth and increased consumer buying power.[4]
The Bureau of Labor Statistics (BLS), U.S. Department of Labor, reported that employment in the automotive parts industry averaged 768,000 in 2003 (Table 5). This is a decrease of 4 percent from the 801,900 jobs in 2002. The last increase in automotive parts industry employment occurred in 2000 when employment grew slightly, rising 3 percent to 920,300, but fell sharply the following year to just 850,200.

The Annual Survey of Manufacturers released in February 2003 counted 777,774 workers in the automotive parts industry (NAICS 3363211 Motor Vehicle Body Manufacturing and NAICS 3363 Motor Vehicle Parts Manufacturing) in CY 2001, a figure that was down 8.1 percent from 2000. The average growth rate in employment in the automotive parts sector was 1 percent per year between 1997- 2000 (Table 6).

The value of U.S. automotive parts industry shipments in CY 2001 was $190.7 billion, which was an 8.4% decrease from 2000 (Table 2). Although the industry experienced some growth in CY 2000, the slowdown in production was becoming evident when the value of industry shipments increased only 0.8 percent from $206.6 billion in 1999 to $208.2 billion in 2000. However, 1999 was a dramatic increase of 10.2 percent over 1998's levels. It is likely, considering the decrease in and the sales indicators of the largest auto parts suppliers in 2002, that the value of industry shipments will not have changed much or will have registered a decrease in 2002. Shipments are expected to show little change or a slight improvement in 2003 because vehicle sales and production were strong, but parts exports decreased.

U.S. automotive parts manufacturers are under intense pressure from vehicle manufacturers to reduce prices. The auto parts suppliers expect to reduce domestic production and open more factories outside the United States because of cheaper labor and the requirement imposed by vehicle manufacturers to follow them abroad. In a study by Berger Strategy Consultants and the Original Equipment Suppliers Association (OESA), suppliers forecast a 17 percent drop in U.S. and Canadian parts manufacturing capacity by 2010.[5]

In the United States, parts manufacturers are faced with rising operating costs, high labor wages, debt payments, increased engineering responsibilities, small profit margins, and price cut demands from vehicle manufacturers. Many suppliers of high-labor content products are turning to emerging markets where labor costs are substantially lower. Suppliers in emerging markets are also improving quality by buying used, modernized machinery from suppliers in developed countries leaving the industry.

---

[4] Detroit News, 1/9/04

[5] Automotive News, 2/23/04.

The rebounding U.S. economy, along with many new vehicle models being introduced in 2004, are indications that auto parts suppliers may experience a better year. As many as 56 vehicle models were introduced in 2003/2004 and as many as 75 models could be introduced in 2004/2005. The number of new products give suppliers an opportunity to grow their businesses by winning new contracts. Additionally, the new models may give suppliers a chance to diversify their customer base so they are not too reliant on just one vehicle manufacturer for their parts businesses.[6]

Aftermarket Parts

The health of the automotive aftermarket parts industry is in large part affected by the number of vehicles on the road and the age of the vehicles. There were 229.7 million light vehicles registered in 2001 in the United States, compared to 220.1 million in 2000.[7] The median age of cars climbed to 8.6 years in 2003, and vehicle scrappage rates declined 9.1 percent (according to R. L. Polk & Co). Vehicles are becoming more durable. This trend reflects improved overall durability, but also indicates a growing market for replacement aftermarket parts such as filters, mufflers, brakes, and tires and for performance and styling products.

The automotive aftermarket sector does not feel the price and cost cut pressures from OEMs that the OE supply chain feels, but the sector is still affected by the state of the economy. The size of the U.S. automotive aftermarket in 2003 is estimated to be about $182 billion, up 5.6 percent from the previous year, according to the Motor Equipment Manufacturers Association (MEMA). Factors influencing the size of the aftermarket include economic recovery, number of vehicles reaching prime aftermarket age of about 8 years, cost of gas, amount of unperformed maintenance, and the ability to get or keep used cars in circulation.

In a 2002 study by Feedonia Group, the automotive aftermarket[8] in North America is projected to increase at an annual rate of 3.5 percent, reaching $53 billion by 2006. The best prospects were in the electronic and electrical equipment aftermarket niche, including sound systems, multi-media, telematics, and safety controls. Because of increased quality and durability in original equipment, the aftermarket experienced a slowing of demand, but as these vehicles continue to age, the aftermarket demand should increase measurably by 2006.

The largest sector in the automotive aftermarket is mechanical products such as engine, chassis, drivetrain, and suspension parts. While these products have seen substantial improvement in quality and durability at the OE level, they will eventually wear out. The "aftermarket sweet spot" - between 7-12 years of age - is when these products begin to need replacement. Vehicle sales in the mid- to late-1990s indicate that there should be a large number of vehicles entering the "aftermarket sweet

---

[6] Auto Parts Report, 2/10/04.

[7] Polk data in Ward's Automotive Yearbook 2003.

[8] Parts at manufacturer level, not retail sales and does not include service.

spot" between 2003 and 2006. A downturn in the economy does not hurt the aftermarket as much as it does the original equipment market. During a downturn, there are less new cars sold, keeping older cars in use that will require maintenance. However, vehicle owners often will defer unnecessary maintenance. During good economic times, newer vehicles sales will remove some older vehicles from use, reducing necessary maintenance. However, it is during these times when the unperformed discretionary maintenance of vehicles will be accomplished.

Sales

U.S. sales of light vehicles in 2003 were 16.6 million, down 1 percent from 16.8 million in 2002. This sales volume was the lowest since 1998 when 15.5 million were sold. In 2001, sales of new light vehicles declined from the 2000's record of 17.3 million units to 17.1 million units, which was the second highest total on record.

Original Equipment

North American sales for the top 150 original equipment suppliers was $185 billion in 2003, a 2 percent increase from 2002 levels. In 2002 the sales rebounded by about 9.5 percent, from $166.4 billion in 2001 to $182.1 billion in 2002[9] (Table 7, Charts 4 and 5). Automotive News credited much of this rebound to a 5.3 percent growth in North American vehicle production, fueled by the automakers' incentive programs. Original equipment North American sales decreased in 2001 when only $166.4 billion in sales were reported, down over 8 percent from 2000 figures. The top 10 suppliers of original equipment (OE) parts to automakers in North America saw their North American sales increase 2 percent from 2002 rates to $79.8 billion in 2003. The decline in North American OE sales experienced in 2001 was in part because of price cut demands from automakers, production cut-backs, a slump in heavy truck sales and a recessionary economy.

Globally, the top 100 OEM suppliers had $360.6 billion in sales in 2002, an increase of 4 percent from $347.9 billion in 2001[10] (Table 8, Charts 6 and 7). The top 10 global OEM suppliers saw a 6 percent increase in sales to $147.7 million in 2002 from $139.8 million in 2001. Eight global OEM suppliers have been on the top 10 global OEM suppliers list for the past 4 years. These companies are Delphi Corporation, Visteon Corporation, Robert Bosch GmbH, Denso Corporation, Lear Corporation, Johnson Controls, Magna International Inc., and TRW automotive. Delphi Corporation, since its spinoff from General Motors in 1999, has topped the chart as the leading global OEM supplier. Visteon, which was spun off from Ford Motor Company in 2000, held the number two position until 2001 when Robert Bosch GmbH, a German company, replaced it.

In 2003, Robert Bosch threatened to surpass Delphi as the largest global OEM supplier. If the exchange rate of the dollar maintained record lows compared to the European Euro held at the end of

---

[9] Automotive News, 3/24/03, www.automotivenews.com.

[10] "Top 100 Global Suppliers" insert in Automotive News, 6/16/03.

the year, Robert Bosch's revenues would have exceeded Delphi's. Robert Bosch's Euro global sales were $26.7 billion in 2003 (orginally projected to be about 23.3 billion Euros or about $28.4 billion at E1:$1.22) compared to Delphi Corporation's $28.1 billion. Both suppliers' sales rates grew in 2003 compared to 2002 sales.

Of the top 50 global OEM automotive parts suppliers, 19 are headquartered in the United States. These companies accounted for 43.6 percent of the top 50 companies' worldwide sales of $300 billion in 2002.

Suppliers, preparing for further declines in global auto sales and production in 2003, were diversifying geographically, increasing research and development, turning to joint ventures, seeking more module contracts, and leaving marginal segments. According to industry surveys of automotive analysts and executives, 2004 is expected to be a better year for profits. Although it is also expected that U.S. automakers will continue to lose market share. In 2003 automakers turned to cost cutting and incentives to make profits on light vehicles. To accomplish this the automakers put pressure on parts suppliers to cut costs. The weakening dollar also increased the costs of building new cars in the United States. In 2002 and 2003, steel tariffs hurt suppliers' profit margin because of higher steel costs. Now that the steel tariffs have been lifted the price of steel, and of other metals as well, is still high because of the weakened dollar. A full turnaround is not expected until 2006, although some industry executives believe it may come in 2005.[11]

U.S. Automotive Parts Trade[12]

According to latest United Nations data available, the United States exported $65.3 billion worth of automotive parts in 2002 and accounted for 19.0 percent of the world's automotive parts exports. The United States was the world's leading export primarily because of shipments to Canada and Mexico for use in vehicles assembled there for the U.S. market (Table 9).

According to U.S. Census data, the United States exported $48.5 billion worth of automotive parts in 2003 (Table 10, Charts 8 and 9). Exports reached $53.7 billion in CY 2000 but fell 7.3 percent to $49.8 billion in CY 2001. Census 2002 data showed that U.S. automotive parts exports increased about 0.6 percent over 2001 rates to $50.1 billion, but plunged 3.2 percent in 2003 to the lowest export value since 1998. Automotive parts exports to Canada ($27.5 billion) and Mexico ($10.3 billion) accounted for 78 percent of the total U.S. parts exports in 2003 (Chart 10). U.S. automotive parts exports to Japan and the European Union accounted for $6.4 billion, or 13 percent, of the total U.S. automotive parts exports. Combined the NAFTA, European, and Japanese markets accounted for 91 percent of the total U.S. automotive parts exports in 2003.

U.S. imports of automotive parts reached $67.0 billion in CY 2000 and fell 6.3 percent to $62.7

---

[11] AutoParts Report, 1/12/04.

[12] U.S. Department of Commerce, Bureau of the Census, trade data, unless otherwise noted.

billion in 2001 (Table 11, Charts 8 and 11). Automotive parts imports into the United States increased 10.1 percent in 2002 over 2001 rates to reach $69.1 billion. Automotive parts imports increased again in 2003 by 7.8 percent to reach a record $74.5 billion. In 2003, Canada, accounted for $18.6 billion worth of U.S. automotive parts imports and Mexico accounted for $21 billion. Together automotive parts from these two countries accounted for 53 percent of the total U.S. automotive parts imports (Chart 12). Rounding out the top five supplier countries of automotive parts to the United States in 2003 were Japan ($13.7 billion), Germany ($5.4 billion), and China ($2.8 billion). Combined, Mexico, Canada, Japan, Germany, and China accounted for $57.4 billion or 83 percent of the total U.S. imports of automotive parts.

As a result of the sharp decline in U.S. automotive parts exports and sharp increase of automotive parts imports, the U.S. trade deficit in automotive parts increased to $26 billion in 2003, a 36.7 percent increase over 2002 (Table 12, Charts 8 and 13). This is the largest trade deficit in automotive parts in history.

China **(http://www.ita.doc.gov/td/auto/US-ChinaPartsOverview.pdf)**
Most of the world's largest Tier 1 suppliers have facilities in China located near their customer(s), to expand their sales in China's growing automotive market, and to take advantage of China's low wages. FOURIN China Auto Weekly estimates that were approximately 616 foreign-funded automotive parts production projects established in China between 1983 and the first half of 2003, primarily by Japanese, U.S., and European suppliers. The majority of the projects are joint ventures.

Many suppliers have been encouraged to locate in China by the vehicle manufacturers, especially since the majority of China's traditional domestic suppliers are not competitive. Foreign suppliers continue to announce plans to open or expand their Chinese operations to meet the anticipated demand of the growing Chinese automotive market. In 2003, China became the world's fourth-largest automotive producer and moved into the number three position for sales. Between August 2002 and August 2003 alone, FOURIN estimated that more than twenty U.S., European, and Japanese parts manufacturers announced new projects or expansions in China. The majority of suppliers set up operations primarily to sell to the growing Chinese market and do not have the capacity to exports. However, the exports of Delphi China, which has had a presence in the Chinese market since 1993, accounted for approximately 20 percent of the company's total revenues generated in China.

Regional protectionism still exists in China and has been another reason for automakers to pressure suppliers to set up plants near their facilities, especially if there are not any local competitive parts companies nearby. This protectionism has been encouraged by the foreign automakers' Chinese partners, whose key shareholder is the local municipal government. According to GM China, the pressure for automakers in China to buy locally has diminished greatly, but it will always exist. When deciding whether or not to set up an operation near a single customer, a supplier needs to determine if economies of scale can be achieved and if they will be able to source from reliable lower-tier suppliers or import subcomponents at a competitive price. In China, that may be difficult to determine.

Suppliers around the world are under constant pressure from the automakers to reduce their costs. With wages as low as fifty cents an hour in China, compared to $21 an hour in the United States and $2 an hour in Mexico, low labor costs are a draw for U.S. suppliers to set up facilities in China, especially for certain labor intensive products. China's low tooling costs, low energy costs and its currency rate are additional incentives for producing and exporting from there.

The increase in sales of China's privately-owned cars is also helping to develop an automotive maintenance and repair business in China, especially in large cities such as Shanghai, Beijing, and Guangzhou. Foreign automotive service companies, such as AC Delco, Germany's Bosch, and Japan's Autobacs and YellowHat are entering China's automotive service and repair market.

Free Trade Area of the Americas (FTAA) **(http://www.ita.doc.gov/td/auto/FTAAAuto.pdf)**
The Free Trade Area of the Americas (FTAA) could offer significant export and investment opportunities for the U.S. automotive parts industry. The full extent of the FTAA's potential impact is difficult to assess. For instance, the impacts of the most significant trade barriers in the region are not entirely negative. While these barriers reduce direct U.S. exports, they also benefit U.S. manufacturers who invested in the region under previous trade regimes.

It is clear that the United States could be seriously disadvantaged if it is not a serious participant. While our borders are effectively open to imports, we do not enjoy reciprocal access with many FTAA countries. The North America Free Trade Agreement's (NAFTA) impact with Mexico indicates the potential for U.S. firms. While imports from Mexico have risen significantly, they would have done so even if the NAFTA agreement did not exist. Our market was already open to Mexico. The difference has been the increase in U.S. exports to Mexico because of our improved access to its market. U.S. exports to Mexico increased from $7,663 million in 1993 to $12,559 million in 2000.

Central Europe
Suppliers see big opportunities in central Europe because of cheap labor, closeness to Western markets, and economic reforms that are beginning to revive markets. For example, Slovakia, located between Czech Republic, Poland, and Hungary, is seeing significant investments and production from Johnson Controls and Delphi Corporation.[13] Central and Eastern Europe are also reaping benefits from a strong euro that encourages European suppliers and vehicle makers to outsource production and to increase parts purchases from eastern and central Europe.

Russia
The Russian market holds great potential for automotive growth, second only to China's. However, the Russian market is burdened with crime, regulatory restrictions, import barriers, and political uncertainty. Ford, GM, and Renault build or plan to start producing cars in Russia. Volkswagen and Toyota are considering their options, and Fiat has signed a deal to export its vehicles into Russia. As vehicle manufacturers begin to have a greater presence in a country, it draws automotive parts suppliers to provide both original equipment and aftermarket parts for the vehicles. European suppliers or suppliers

[13] Automotive News, 2/9/04

with European facilities probably will have easier access to the Russian market, than firms in North America.

JAMA Data Analysis **(http://www.ita.doc.gov/td/auto/JAMAParts.pdf)**
In the 1987 Market Oriented Sector Selected (MOSS) U.S.-Japan talks, the Japanese Government announced that the Japanese Automobile Manufacturers Association (JAMA) would voluntarily provide to the USG JAMA members U.S. parts purchasing data. This would be the aggregate value of parts purchased from U.S. parts manufacturers for use in the United States and Japan, respectively. The semi-annual data would list the value by six parts categories: 1.) engine, 2.) body , 3.) electrical, 4.) chassis, 5.) accessories, and 6.) materials. When the U.S.-Japan Automotive Agreement was signed in 1995, JAMA again agreed to provide similar data, and also break out original equipment (OE) and original equipment service (OES), or parts purchased for dealership repairs. This format was continued after the two governments agreed to create a new, stand-alone Japan-U.S. Automotive Consultative Group based on the principles of the Japan-U.S. Economic Partnership for Growth, signed June 30, 2001. The latest analysis of JAMA data available is for April-September 2003.

Remanufacturing Survey **(http://www.ita.doc.gov/td/auto/remanparts.pdf)**
Remanufactured automotive parts represent an estimated $75-90 billion industry worldwide. Based on estimates by the U.S. Automotive Parts Rebuilders Association (APRA),$35-$40 billion in remanufactured auto parts, plus associated equipment and supplies, were marketed in the United States in 2003. Since domestic demand for remanufactured automotive parts in the United States has begun to show little annual growth, it is imperative that U.S. parts remanufacturers and the associated equipment and supplier industry look outside the United States for increased sales opportunities. The Remanufacturing Survey is designed to give the U.S. parts remanufacturing industry a starting point for determining which areas of the world show potential growth for the industry and some of the limitations, costs, and other information regarding the parts remanufacturing industry in individual countries.

Industry change/restructuring

The Original Equipment Suppliers Association (OESA) reported that the U.S. automotive industry may lose half of its domestic parts suppliers by 2010 because of demands from automakers for cost and price cuts. Automakers and Tier 1 suppliers demanded an average of 6.3 percent in price reductions in 2003, while suppliers agreed to cuts of 3.6 percent. In a survey conducted by OESA and Roland Berger Consultants[14] it was reported that only 14 percent of its surveyed participants managed to meet their cost reduction targets in 2000-2002. Unfortunately those surveyed do not see this pressure slackening. In fact, 12 percent expect to be struggling with 20 percent targets in 2003-2006, versus the 6 percent that they faced in 2000-2002. If this trend continues, suppliers will be forced to consolidate to stay competitive and 50 percent of the suppliers could disappear by 2010. This consolidation will have an impact on manufacturing jobs in the United States. Nonetheless, suppliers soon will face a severe shortage of skilled workers if they don't find new ways to attract and keep them, according to

[14] "Odyssey of the Auto Industry," presented before the SAE World Congress on March 8, 2004.

Delphi Corporation CEO J.T. Battenberg III.[15] Many longtime employees will be retiring in the next few years and the generation behind the baby boomers is too small in number to fill the gap, even with productivity improvements.

Delphi Corporation announced a $56 million loss in 2003, blaming restructuring costs and reduced vehicle assembly by its top customer General Motors. Delphi revenues were $346 million in 2003, down from $516 million in 2002. It cut 3,650 jobs and shed 12 facilities in 2003 and could cut an additional 5,000 jobs and close or sell four more facilities as part of its restructuring by the end of 2004. Visteon has been constrained by the agreement that the United Automotive Workers (UAW) and Ford reached when spinning off Visteon in 2000. In late 2003, Ford said that it will take a $1.6 billion charge against earnings for the fourth quarter as a cost of restructuring its relationship with Visteon. The deal requires Visteon to guarantee annual price reductions through 2007, but Ford will help Visteon lower its labor costs. One of Visteon's largest cost burdens has been the 20,000 UAW workers who are considered Ford employees under the 2000 spin-off agreement. Visteon reimburses Ford for the workers' wages and benefits. Under the new deal, Ford will transfer back to Ford plants as many of those workers as possible, allowing Visteon to replace them with new UAW workers hired under a lower wage.[16]

Since the formation of the United Automobile, Aerospace, and Agricultural Union (UAW) in the 1930's, the philosophy of the union always has been "the same pay for the same job". In other words, everyone in the same job classification receives the same hourly wage rate and benefits. In recent negotiations with most U.S. parts producers, this philosophy has changed. While most union members already on a company's payroll will retain their current wage rate, the UAW and the parts manufacturers have agreed to a new contract which will enable the manufacturer to pay new workers a lower wage rate and fewer or less costly benefits. **(http://www.ita.doc.gov/td/auto/Unions.pdf)**

The principle reason for the change in attitude is that UAW membership (active members) slipped from 1.5 million in 1979 to 640,000 at the end of 2002. The UAW leadership decided that it is better to keep jobs in the United States at a lower wage rate than lose these jobs to either outsourcing overseas or to non-UAW manufacturing plants in the United States. Based on the most recent UAW contracts, it appears most UAW members also agree with this change.

The U.S. economy is regaining its legs and because the automotive industry is an important link to other economic sectors, any economic revival will affect the automotive industry. Logically, trends in the automotive parts industry follow the motor vehicle industry. However, there is a perception that even in periods of downturn in the motor vehicle sector lost OE automotive parts production and sales will be offset somewhat as demand for replacement parts for vehicles-in-use increases. This perception is not always correct as consumers will also delay all-but-essential repairs during a recession. Additionally, the durability of parts has increased from previous decades, resulting in less need to replace many

---

15 Automotive News, 12/20/03.

16 AutoParts Report, 12/24/03

normal wear parts. Therefore, declines in OE parts production and sales may no longer be offset by increases in the demand for aftermarket parts.

As the world's major auto makers attempt to continue to expand their global manufacturing operations, U.S. OE suppliers have responded by revamping operations to be able to manufacture for and supply auto makers worldwide. Several of the largest U.S. auto parts suppliers, including Lear Corp, Visteon, and Tenneco, had to eliminate jobs and reorganize. Since late 2000, Delphi Corp. has cut about 24,000 jobs and Dana Corp. cut about 17,000 jobs. In March 2003, Visteon laid off about 270 employees from some of its U.S. plants and planed to continue lay offs through the year.

Other factors that adversely affected suppliers beginning in late 2000 and carried through 2002 included continued cost-cutting pressures from auto makers, increased pressure for market share by competitors (especially European suppliers), divestitures by some companies, and a slowdown in merger activity.

Because of its large share of total domestic production, employment, and exports, increasing the U.S. automotive parts industry's domestic and international competitiveness is of vital importance to the entire U.S. economy. The health of many major U.S. industries, such as metals, plastics, and electronics, is dependent on the performance of the U.S. automotive industry. Moreover, increased exports of U.S. automotive parts could result in an increase in high-wage jobs or in their preservation. The Economics and Statistics Administration of the Department of Commerce estimates that every $1 billion in additional U.S. automotive parts exports will create or preserve 6,000 jobs.

Steel

Despite the lifting of the steel safeguard tariffs in 2003, steel prices have remained high. Steel mills have raised prices 20-30 percent as a result of coke shortage, higher raw material costs and high shipping costs. Steel from foreign producers is also costly despite the repeal of the steel tariff because of the dollar's decline in value and higher demand in China. The result is the small profit margins of automotive parts suppliers continue to be squeezed by steel prices.[17]

Small U.S. manufacturers have appealed to Congress for relief, alleging that steel producers were unfairly profiteering at their expense. Both the small manufacturers and the steel industry agreed that the government could help by imposing sanctions on China. The U.S. steel industry charged that China subsidizes its steel industry. Some steel users also have asked Congress for emergency limits on the export of scrap metal, forcing domestic scrap suppliers to provide the material to U.S. mills. The United States does not constrain exports to China, while countries such as Russia, Ukraine and South Korea either decline to export scrap or impose surcharges on it. The net result is an increase in global scrap prices.

Suppliers lobbied against the steel tariffs. MEMA gathered data from 16 select automotive

---

[17] Automotive News, 2/9/04.

parts manufacturers to determine the impact of the "Section 201" steel tariffs on the U.S. auto parts industry. MEMA found a reported cost of $121 million for the 16 manufacturers in 2002 directly attributable to higher steel prices and a reported cumulative loss of $12 million in 2002 because of longer lead times and delivery problems with steel materials. The 16 manufacturers were projected to have $213 million cost in 2003 because of the increased steel prices. While MEMA recognized the importance of a domestic steel industry, the 201 tariff put the U.S. steel consuming manufacturers, like the automotive parts industry, at stake. MEMA reported that steel tariffs made it difficult for companies to operate in the United States, export from the United States, and source raw materials in the United States. MEMA highlighted three areas of concern to the supplier industry because of the steel tariffs. The first was the concern that the production of automotive parts and components, as well as cars and trucks, could be disrupted because of the allocation and rationing of domestic steel. The second was the steep and sudden increases in raw material costs which can not be passed forward to vehicle manufacturers. The third was the shift of customers' purchases from domestic to foreign sources of automotive parts and assembled component systems.[18]

Mergers, Acquisitions, and Bankruptcies

Competition in the automotive industry has kept most suppliers' profit margins very thin. Although most suppliers remain profitable, the margins are so slim that disturbances in the economy like increased steel prices or energy prices could leave many suppliers in financial trouble. Ever increasing competition and industry productivity are increasingly adding to pressure for consolidation. Some industry analysts estimate that up to 90 percent of U.S. parts suppliers were acquired, merged, or left the business during the 1990s.[19]

The value of mergers and acquisitions in the automotive parts industry (SIC 3714- Motor Vehicle Parts) dropped 92 percent from $6,656.5 million in 2000 to $517.8 million in 2001, with the same number of deals (41), according to Automotive Aftermarket Industry Association (AAIA) (Table 13). This is a significant decline from 1998 when the number of deals was 63 worth $22,495.4 million.[20] The economic decline put a virtual freeze on merger and acquisitions. It also increased the number of bankruptcy filings. Between CY 1992 and 2000 there were an estimated 188 major acquisitions and joint ventures among auto suppliers. The major story for the year was Arvin-Meritor's attempted acquisition of Dana. Activity remained relatively weak in 2003. Some industry participants anticipate additional mergers and acquisitions throughout 2004.

Between 1995 and 2001 the industry's 23 largest publically traded suppliers' consolidated industry sales rose from $62 billion to $112 billion.[21] The merger and acquisition boom left little trace of

---

[18] The Autoparts Report, 6/21/02.

[19] The Detroit News, September 30, 2003.

[20] AAIA, Afternmarket Factbook 2002.

[21] Automotive News, 3/21/02.

benefits to supplier operating margins and return on capital. Disappointing share returns and large debt left suppliers in need of the capital. Bankruptcies and distressed credits have generated $8 billion in losses to auto supplier lenders between 1999-2001.[22] Debt levels among the top 23 suppliers tripled during the seven years - rising five times faster than the market value of the group's common stock. Alleviating the capital squeeze requires innovative supplier strategies. There is debate over whether the type of activity that occurred in the 1990s could return, but smaller suppliers will face the largest shake-out in the coming years.

Nevertheless, the pressures driving industry consolidation remain. Former GM Chairman Jack Smith, now with Alix Partners, says GM is grouping its parts makers into three categories: those who are functioning properly and can win additional contracts, those who have problems that can be "fixed", and those who are not performing well enough to win new business.[23] The same pressure that is pushing industry consolidation is also forcing companies to divest weak or non-core operations. Companies that sit on the sidelines risk being too small to compete or unattractive to potential suitors.

Business Model - OEM and Supplier Relations

Industry representatives and analysts have expressed concern about the current business model of the Big 3 and their relationship with suppliers. Essentially the Big 3 are utilizing the same supply model Henry Ford developed in1913. The thrust of this system is a set of independent suppliers bidding on short-term contracts. The cost orientation of the assemblers drives down the profit margins of the suppliers. Many industry analysts think this business model is broken.

According to a survey of 600 lower tier suppliers by Plante and Moran LLP consulting firm, 15 percent of the supply chain is in dire straits and unlikely to survive if the status quo is maintained. Only 20 percent of the lower tier suppliers are actually having success with the status quo, partly because they have the clout to resist price cuts. The study also found that 70 percent of the suppliers have positive cash flow, but are producing returns 25-40 percent below required thresholds over the long term. Many suppliers have high debt levels and are vulnerable to disturbances in the economy. While this system of arms length deals is highly effective at holding down costs for commodity items, it seems less effective at maintaining quality and innovation in the supply chain. In the words of Larry Denton, CEO of Dura Automotive Systems Inc.: "There's something broke here. Innovation isn't getting through [to] the old domestics**."**[24] The Japanese model of long-term supplier relations appears to be more sustainable in this regard.

Industry analysts appear to agree that Japanese automakers are much more selective in who they do business with and they spend much more time working to preserve their supplier continuity. Thus, while the Big 3 will attempt to use auctions to cut prices, Japanese makers tend to work with their supplier to

---

[22] Automotive News, 3/21/02.

[23] The Detroit News, September 30, 2003.

[24] Automotive News, February 10, 2003, Pgs. 17-18.

achieve cost reductions. "They work with you to arrive at a competitive price, and they are willing to pay because they want long-term partnering," said Earl Code, a vice president at Ernie Green Industries. "They want suppliers to make enough money to stay in business, grow and bring them innovation."[25]

Attempting to address their suppliers' concerns, the U.S. vehicle assemblers, Ford and GM, now are trying more collaborative approaches with suppliers to cut costs. In the fall of 2002, Ford created Team Value Management to pursue this approach. GM is also working with a select group of suppliers in a more collaborative effort to develop plans to cut the cost of parts by 20 percent over three years. In a long-term approach, suppliers have proposed ideas that would allow them to earn credit for tomorrow's savings. Some suppliers continue to be skeptical of vehicle assemblers' demands for price or cost cuts. Cost cuts are more desirable because suppliers are asked to find ways to cut costs and share the savings with the assemblers. On the other hand, price cuts come directly from supplier profits.

One of Ford's "core values" calls for 'think value not price' in dealing with suppliers. However, Ford Motor Company is still trying to find cost reductions by 2005 through its Ford North America Design Cost Sharing Program. Some suppliers point out that they must still absorb higher steel costs, accept greater warranty and recall costs and continue price cuts. Indeed, Ford ordered 3.5 percent price cuts to start 2004. Ford is also demanding that its suppliers meet "global" price levels or move their operation overseas.

General Motors has continued its push for price cuts. GM asked its Tier 1 suppliers to develop Tier 2 and Tier 3 suppliers outside the United States in low-cost areas like Mexico, China, and South Korea, and to aggressively cut costs in their supply chain. Suppliers are expected to resist the notion that they should cut prices without quid pro quo. Additionally, there are some concerns among suppliers about sourcing some parts from Chinese and South Korean suppliers. Chief among them are quality problems with some parts, especially steel for class-A surfaces, like vehicle interiors. To keep costs down, many suppliers do have extensive overseas plant operations. Most of these operations are in relatively low-labor cost areas, like Asia, Eastern Europe, and Latin America/Mexico.

According to Wim van Acker of Roland Berger consulting, "nearly every supplier we've interviewed so far has indicated they are under increasing pressure to expand production outside North America. Mr. van Acker points out that larger companies are already pursuing opportunities overseas, but small and medium-sized suppliers typically do not have the resources to support expansion. They are not in a position to absorb any sizeable losses should they attempt to do so.[26]

Suppliers can expect to face continued requests for cost reductions from vehicle assemblers and Tier 1 suppliers. In another study by the Roland Berger consulting firm it was suggested that suppliers should

---

[25] Automotive News, February 10, 2003, Pgs. 17-18.

[26] Auto Parts Report Vol. XVII, Number 6 & 7, February 16, 2004.

choose one of three business models - system integrators, technology satellites, or process satellites. System integrators, focusing on program management and cost control, add value to subsystems for other suppliers. Technology satellites develop unique technologies, relying heavily on r&d and strong engineering staff. Process satellites develop better processes for lowcost, high-volume manufacture of commodities and may outsource manufacturing of the commodities.

Suppliers are being evaluated, not only on the basis of near-term price and long-term cost reduction programs, but also for their corporate stability, product design and production engineering capabilities, for down-stream management of their own supply chains, delivery reliability, willingness to locate plants in closer proximity to the vehicle assemblers, and for participation in the assembly process. Some suppliers are willingly taking on new responsibilities offered to them, transforming themselves into "Tier One-Half systems integrators," that engineer and build complete modules and assume both product design and development responsibilities and down stream supply chain management functions.

Other suppliers who choose not to pursue the new role and remain in less demanding tiers may be more profitable in the near term, but may increasingly find themselves in more competitive environment of highly cost sensitive, commodity products, especially if they are unable to differentiate their products. OESA estimates that there were 30,000 automotive suppliers in North America in 1990, but just 10,000 in 2000. By 2010, their numbers may be no more than 4,000.[27]

The industry has been making attempts at collaboration through the Automotive Industry Action Group (AIAG) and the Society of Automotive Engineers (SAE). Industry executives offered logistics as a good example of over-competition. Originally the Big 3 each did logistics and did it efficiently. Then they got out of logistics and gave the Tier 1 suppliers the responsibility of managing the supply chain. Each Tier 1 now has to add a logistics function, which adds a cost. The industry executives don't believe that the Big 3 should manage the supply chain, suggesting a consortium of suppliers, OEMs, and others to concentrate on the commonization of standards for process and procedures that interrelate the chain as a unit. Other industry representatives aren't sure that a consortium is the answer, but do see a lot of waste in the current model and believe that there should be some discussion of the problems.

U.S. auto parts suppliers are also turning to foreign automakers for business in response to price cutting demands from the Big 3. Japanese and European automakers have gained U.S. market share, reducing the Big 3 from 72.1 percent share in 1992 to 60.2 percent of the 2003 market. Industry analysts argue that as more U.S. suppliers land contracts with foreign-owned automakers, U.S. automakers may fall behind in innovation and that could cause further loss of market share. As discussed above, foreign automakers tend to build more collaborative relationships with their suppliers and allow suppliers to benefit from innovations, making them more desirable customers.

New business model approaches have been sought by examining supplier park systems, which are common in Europe, and Japanese supplier relations. The appeal of supplier parks is that it puts parts suppliers in or next to assembly plants, significantly shortening the response time of suppliers, shortening

---

[27] "Odyssey of the Auto Industry," presented before the SAE World Congress, March 8, 2004.

lead time, saving money on shipping parts, and lessening the chance of disruptions. Ford has the first North American automotive supplier park under development in the Chicago area. It will have 10 Tier 1 suppliers within half a mile of a sedan assembly plant.

For suppliers that produce complex modules and require just-in-time delivery, there are potential benefits in being part of a supplier park. For some other suppliers, however, it makes little sense to spend money on building a plant for just one customer to turn out parts which are easy to ship. Suppliers need to consider the costs and benefits of being part of a supplier park to service just one customer.

Automotive News recently offered suggestions that might help U.S. suppliers to maintain leadership in manufacturing and refocus to meet the realities of today's global marketplace. First, make the American people aware of the structural change that is taking place and what it means to their country, community, and lifestyle. The United States has not abandoned manufacturing. Manufacturing's declining percentages of Gross Domestic Product and employment reflect advances in efficiency and productivity. Second, the United States must get a handle on domestic costs. According to a study done by the National Association of Manufacturers, all U.S.-based manufacturers are at a cost disadvantage of at least 22 percent compared with foreign competitors because of U.S. public policy and actions or the failure of federal, state or local governments to act,. The disadvantage stems mainly from external costs associated with health care, taxes, litigation, regulations, and energy.[28]

E-Commerce

Covisint, formed by GM, Ford, DaimlerChrysler, Nissan, and Renault in 2000, was to become the supplier portal for the automotive industry, linking parts suppliers to vehicle manufacturers it would transform the industry. However, when the internet bubble burst in 2002, prospects and expectations for Covisint began to dim. The major supply-chain portal had difficulty in trying to live up to expectations. The technology, culture, and acceptance were not there. With only limited success with reverse auctions, in early 2004, Covisint was on the auction block itself. It had sold its online auction service and had shut down its electronic parts catalog in 2003. The only remaining business was primarily a new electronic transmission service for vehicle manufacturers. Covisint's creators and equity partners sold their equity stakes to Compuware Corp., a software and technology service firm in Detroit, in February 2004.

SupplyOn, an electronic marketplace owned by some of Germany's largest automotive parts suppliers, including Robert Bosch, Siemens, and Continental, was established in 2000. It recently announced plans to fill the void left by Covisint's departure, offering improved transaction speed, cost savings and better communications through the use of the electronic marketplace concept. SupplyOn believes it can succeed in the United States because it was created by suppliers for suppliers. However, some U.S. industry analysts do not agree. Competition in the United States is well-entrenched, suppliers have

---

[28] Automotive News, 3/22/04.

been developing their own web-based tools, and suppliers are going from a centralized marketplace to private marketplaces.

Conclusions

The automotive parts industry can expect an increase in production in 2004 because economic indicators are rebounding favorably, and both domestic light vehicle production and new vehicle sales are expected to grow between 3 to 4 percent by the end of 2005 bolstered by the introduction of many new, locally assembled models. The automotive aftermarket also can expect to see a slight increase in sales in 2004 as older vehicles start needing maintenance and repairs to keep them on the road. However, the industry should also expect that the Big 3 will continue to demand price or cost cuts as they continue their efforts to regain lost market share. The industry can expect more departures of suppliers as profit margins are squeezed by vehicle manufacturers' demands for price cuts, price increases of raw materials, and competition from suppliers in low labor-cost countries. Automakers and suppliers will experiment with innovative and alternate business models to reduce financial pressure.

Appendix 1

Office of Automotive Affairs Automotive Parts Product Listings

To facilitate the analysis of trade data for automotive parts on a market-based model, the Office of Automotive Affairs (OAA) has created six product groupings from the available, individual 10-digit product codes. The core of the codes are contained in Chapter 87, "Vehicles Other Than Railway or Tramway Rolling-Stock, and Parts and Accessories Thereof" of the internationally-agreed Harmonized Tariff System (HTS). We list these groups and their codes below. Some codes are not valid for current years, but are included to assure that data for products so coded for previous years are retrieved from the data base and assigned to the appropriate OAA group.

The OAA groups are not "official" product subcategories, and are not listed in the Harmonized Tariff System nomenclature published by the U.S. International Trade Commission (USITC) for coding imports (Internet address: http://www.usitc.gov/taffairs.htm), nor in the parallel "Schedule B" published by the U.S. Census Bureau for coding exports (http://www.census.gov/foreign-trade/schedules/b/2001/sb87.htm). The OAA attempts to closely approximate the core automotive industry by excluding certain items for example, parts explicitly listed for motorcycles, golf-carts, snowmobiles, agricultural equipment, etc.

Readers should realize that OAA is not the only, nor the "official," U.S. government source for trade data on the auto industry, nor are we able to produce custom data runs for the public. Persons seeking data for individual or different product codes are welcome to utilize at no charge the data retrieval system operated by the USITC to access the federal government's official trade data base. Please note, some of the data on the trade data base may be restricted from the public. The ITC's retrieval system, *Trade DataWeb*, can be accessed at <http://dataweb.usitc.gov/scripts/user_set.asp>.

HTS Codes by Product Group

HTS Codes for U.S. Imports of:		HTS Codes for U.S. Exports of:	
Bodies and Parts		**Bodies and Parts**	
7007110000	Safety Glass	7007110000	Safety Glass
7007110010	Safety Glass	7007211000	Windshields
7007211000	Windshields	7007215000	Safety Glass
7007211010	Windshields	7009100000	Rear-View Mirrors
7007215000	Safety Glass	8301200000	Locks
7009100000	Rear-View Mirrors	8302103000	Hinges
8301200000	Locks	8302300000	Other Mountings
8301200060	Other Locks	8707100020	Bodies
8302103000	Hinges	8707100040	Bodies
8302303000	Other Mountings	8707905020	Bodies

8302303010	Pneumatic Cylinders
8302303060	Other Mountings
8302306000	Other Mountings
8707100020	Bodies
8707100040	Bodies
8707905020	Bodies
8707905040	Bodies
8707905060	Bodies
8707905080	Bodies
8708100010	Stampings of Bumpers
8708100050	Bumpers and Parts
8708103010	Stampings of Bumpers
8708103050	Bumpers
8708106010	Stampings Parts of Bumpers
8708106050	Parts of Bumpers
8708210000	Seat Belts
8708290010	Stampings of Bodies
8708290025	Truck Caps
8708290050	Parts & Access. of Bodies
8708290060	Parts & Access. of Bodies
8708291500	Door Assemblies
8708292000	Body Stampings
8708295010	Stampings
8708295025	Truck Caps
8708295060	Other Parts
8708995045	Slide in Campers
8708996100	Airbags
9401200000	Seats
9401200010	Child Safety Seats
9401200090	Seats
9401901000	Seat Parts
9401901010	Seat Parts of Leather
9401901080	Seat Parts
9403406000	Wooden Furniture for M.V.
9403506000	Wooden Furniture for M.V.
9403901000	Furniture?
9403901040	Parts of Furniture for M.V.
9403901080	Parts of Furniture for M.V.

Chassis and Drivetrain Parts

4009500020	Brake Hoses
6813100050	Brake Linings & Pads

8707905040	Bodies
8707905060	Bodies
8707905080	Bodies
8708100010	Stampings of Bumpers
8708100050	Bumpers and Parts
8708210000	Seat Belts
8708290010	Stampings of Bodies
8708290025	Truck Caps
8708290050	Parts & Access. of Bodies
8708290060	Parts & Access. of Bodies
8708295025	Truck Caps
8708295070	Other Pts. & Access. Bodies
8708990045	Slide-in Campers
8708998030	Slide-in Campers
9401200000	Seats
9401901000	Seat Parts
9401901010	Seat Parts of Leather
9401901080	Seat Parts
9403901000	Parts of Furnitures

Chassis and Drivetrain Parts

4009500020	Brake Hoses
6813100000	Brake Linings & Pads

6813900050	Friction Materials
7318160010	Lugnuts
7318160015	Lugnuts
7318160030	Lugnuts
7318160045	Other Lugnuts
7320100015	Leaf Springs
7320103000	Leaf Springs
7320106015	Leaf Springs
7320106060	Leaf Springs
7320201000	Helical Springs
8421394000	Catalytic Converters
8482101000	Ball Bearings
8482101040	Ball Bearings
8482101080	Ball Bearings
8482105044	Radial Bearings
8482105048	Radial Bearings
8482200010	Tapered Roller Bearings
8482200020	Tapered Roller Bearings
8482200030	Tapered Roller Bearings
8482200040	Tapered Roller Bearings
8482200050	Tapered Roller Bearings
8482200060	Tapered Roller Bearings
8482200070	Tapered Roller Bearings
8482200080	Tapered Roller Bearings
8482400000	Needle Roller Bearings
8482500000	Other Cylindrical Bearings
8708315000	Mounted Brake Linings
8708395010	Brake Drums & Rotors
8708395050	Brakes & Servo-Brakes
8708401000	Gear Boxes
8708402000	Gear Boxes
8708405000	Gear Boxes
8708503000	Drive Axles
8708505000	Drive Axles
8708508000	Drive Axles
8708605000	Non-Driving Axles
8708608010	Spindles
8708608050	Non-Driving Axles
8708704530	Road Wheels
8708704545	Road Wheels
8708704560	Wheel Rims
8708706030	Wheel Covers
8708706045	Wheel Covers & Hubcaps
8708708010	Wheels
6813900000	Other Friction Materials
7320100000	Leaf Springs
7320201000	Helical Springs
8421394000	Catalytic Converters
8482101000	Ball Bearings
8482105044	Radial Bearings
8482105048	Radial Bearings
8482200020	Tapered Roller Bearings
8482200030	Tapered Roller Bearings
8482200040	Tapered Roller Bearings
8482200060	Tapered Roller Bearings
8482200070	Tapered Roller Bearings
8482200080	Tapered Roller Bearings
8482400000	Needle Roller Bearings
8482500000	Other Cylindrical Bearings
8708310000	Mounted Brake Linings
8708390000	Other Brakes
8708401000	Gear Boxes
8708402000	Gear Boxes
8708406000	Gear Boxes
8708500050	Drive Axles
8708600050	Non-Driving Axles
8708700050	Road Wheels & Pts.
8708805000	Suspension Shock Absorbers
8708925000	Radiators
8708935000	Clutches and Parts
8708945000	Steering Wheel, Column
8708990070	Wheel Hub Units
8708995800	Wheel Hub Units
8708996100	Airbags
8708998015	Wheel Hub Units

8708708015	Wheels
8708708025	Wheels
8708708030	Wheels
8708708035	Wheels
8708708045	Wheel Rims
8708708050	Parts & Access. for Wheels
8708708060	Wheel Covers & Hubcaps
8708708075	Parts & Access. for Wheels
8708803000	Suspension Shock Absorbers
8708804500	Suspension Shock Absorbers
8708805000	Suspension Shock Absorbers
8708925000	Radiators
8708935000	Clutches & Parts
8708936000	Clutches
8708937500	Parts of Clutches
8708945000	Steering Wheels, Columns
8708995010	Steering Shaft Assemblies
8708995020	Wheel Hub Units
8718995025	Wheel Hub Units
8708995030	Beam Hanger Brackets
8708995800	Wheel Hub Units
8708996400	Half Shafts & Drive Shafts
8708996700	Parts (joints?)
8708996710	Universal Joints-‘01
8708996720	Universal Joints- ‘01
8708996790	Other Joints-‘01
8708997030	Beam Hanger Brackets
8708997060	Suspension System Parts
8708997330	Steering Shaft Assemblies
8708997360	Parts for Steering Systems
8708998015	Wheel Hub Units
8716905010	Axles & Parts for Trailers
8716905030	Wheels for Trailers

Electrical and Electric Components

8414308030	Compressors
8414596040	Fans
8414598040	Fans & Blowers
8415200000	Air Conditioners
8415830040	Air Conditioners
8415900040	Parts of Air Conditioners
8415908040	Parts of Air Conditioners
8415908045	Parts of Air Conditioners

Electrical and Electric Components

8414308030	Compressors
8414596040	Fans
8414598040	Fans & Blowers
8415200000	Air Conditioners
8415830040	Air Conditioners
8507100050?	Storage Batteries
8507100060	Storage Batteries
8507904000	Parts for Lead Acid Batteries

8501324500	Electric Motors
8507100060	Storage Batteries
8507304000	Nickel-Cadmium Batteries
8507904000	Parts for Lead Acid Batteries
8511100000	Spark Plugs
8511200000	Magnetos, Dynamos
8511300040	Distributors
8511300080	Ignition Coils
8511400000	Starter Motors
8511500000	Generators
8511802000	Voltage Regulators
8511806000	Other Engine Ignition Equip.
8511902000	Parts for Voltage Regulators
8511906020	Parts for Distributer Sets
8511906040	Other Parts Engine Ignition
8512202000	Lighting Equipment
8512202040	Lighting Equipment
8512204000	Signaling Equipment
8512204040	Signaling Equipment
8512300020	Horns
8512300040	Sound Signaling Equipment
8512402000	Defrosters
8512404000	Windshield Wipers
8512902000	Parts of Signaling Equipment
8512906000	Lighting Equipment Parts
8512907000	Parts of Defrosters
8512909000	Parts of Windshield Wipers
8519910020	Cassette Tape Players
8519911000	Cassette Tape Players
8519934000	Cassette Tape Players
8525201500	Radio Transceivers
8525206020	Radio Telephones
8525209020	Radio Telephones
8527211005	Radio-Tape Players (CDs)
8527211010	Radio-Tape Players
8527211015	Radio-Tape Players
8527211020	Radio-Tape Players
8527211030	Radio-Tape Players
8527214000	Radio-Combinations
8527214040	Radio-Combinations
8527214800	Radio-Combinations
8527290020	Radio-Receivers AM
8507904050?	Parts for Batteries?
8511100000	Spark Plugs
8511200000	Magnetos, Dynamos
8511300040	Distributors
8511300080	Ignition Coils
8511400000	Starter Motors
8511500000	Generators
8511802000	Voltage Regulators
8511806000	Other Engine Ignition Equip.
8511906020	Parts for Distributor Sets
8511908000	Other Elec Ignition Equip
8512202000	Lighting Equipment
8512204000	Signaling Equipment
8512300000	Sound Signaling Equip
8512402000	Defrosters
8512404000	Windshield Wipers
8512902000	Parts of Signaling Equip.
8512905000	Parts of Lighting Equip.
8512908000	Other Pts of Elec. Equip.
8525201000	CB Transmission Apparatus
8525206000	Other Transmission Apparat.
8525209020	Radio Telephones
8525209050?	Radio Telephones?
8527210000	Radiobroadcast Receivers
8527290000	Other Radiobroadcast Receiv
8531800038	Radar Detectors
8531809038	Radar Detectors
8536410005	Signaling Flashers
8539100020	Beam Lamp Units
8539100040	Beam Lamp Units
8544300000	Ignition Wiring Sets
9029100000	Revolution Counters
9029205000	Other Speedometers/Tacho
9029900000	Pts & Access of Rev Counter
9104000000	Inst Panel Clocks

8527290040	Radio-Receivers FM/AM
8527290060	Radio-Receivers
8527294000	Radio-Receivers FM/AM
8527298020	Radio-Receivers AM
8527298060	Radio-Receivers
8531800038	Radar Detectors
8531808038	Radar Detectors
8531809038	Radar Detectors
8536410005	Signaling Flashers
8539100010	Beam Lamp Units
8539100020	Beam Lamps
8539100040	Beam Lamps
8539100050	Beam Lamp Units
8539212040	Halogen Lamps
8544300000	Ignition Wiring Sets
8708291000	Inflators & Modules Airbags
9029104000	Taximeters
9029108000	Revolution Counters, Odom.
9029204080	Other Speedometers, Tach.
9029902000	Parts & Access of Taximeters
9029908040	Parts & Access of Speed/Tac
9029908080	Parts & Access of Odometers
9104002510	MVT & Cases Panel Clock
9104004000	Instrument Panel Clocks
9104004510	Movements of Inst. Clock

Engines and Parts

4010101020	Belts
4016931010	O-Rings
4016931020	Oil Seals
4016931050	Gaskets
4016931090	Gaskets
8407341400	Engines
8407341540	Engines
8407341580	Engines
8407341800	Engines
8407342040	Engines
8407342080	Engines
8407344400	Engines
8407344540	Engines
8407344580	Engines
8407344800	Engines

Engines and Parts

8407342000	SP-IG Piston Engine
8407342030	SP-IG Engine
8407342090	Other Engine
8408202000	Compression Ignition Engine
8409914000	Pts for Engines
8409994000	Other Pts for Engines
8413301000	Fuel Injection Pumps
8413309000	Fuel, Lub., Cooling Pumps
8413911000	Parts of Fuel Injection Pumps
8414308030	Air Conditioners
8414593000	Turbochargers
8421230000	Oil or Fuel Filters
8421310000	Intake Air Filters
8483101020	Transmission Shafts
8483103010	Camshafts & Crankshafts

8408202000	Compression Ignition Engine
8409911040	Cast Iron Parts
8409913000	Aluminum Cylinder Heads
8409915010	Connecting Rods
8409915080	Parts
8409919110	Connecting Rods
8409919190	Parts
8409919910	Connecting Rods
8409991040	Cast-Iron parts
8409999110	Connecting Rods
8409999190	Parts
8413301000	Fuel Injection Pumps
8413309000	Fuel, Lub., or Cooling Pumps
8413309030	Fuel Pumps
8413309060	Lubricating Pumps
8413309090	Cooling Medium Pumps
8413911000	Parts of Fuel Injection Pumps
8414593000	Turbochargers
8421230000	Oil or Fuel Filters
8421310000	Intake Air Filters
8483101030	Camshafts and Crankshafts
8483103010	Camshafts and Crankshafts
9802004020	Combust. Engine Repair
9802005030	Value of Repairs on Engines

Miscellaneous Parts

3819000000	Brake Fluid
3819000010	Brake Fluid
3819000090	Other Liquids
3820000000	Anti-Freeze
4016993000	Vibration Control
4016995010	Mechanical Articles
4016995500	Vibration Control
4016996010	Mechanical Articles
8301200030	Steering Wheel Immobilizers
8425490000	Jacks
8426910000	Lifting Machinery
8431100090	Parts of Winches, Jacks
8708706060	Parts & Access. for Wheels
8708915000	Radiators
8708993000	Cast Iron Parts
8708995005	Brake Hoses

Miscellaneous Parts

3819000000	Brake Fluid
3820000000	Anti-Freeze
4016995010	Mechanical Articles
8425490000	Jacks
8426910000	Lifting Machinery
8431100090	Parts of Winches, Jacks
8708915000	Radiators
8708990050	Pts & Access
8708990090	Other Pts & Access
8708990095	Pts & Access
8708998075	Other Pts & Access
8716900000	Parts of Trailers
8716905000	Parts

8708995060	Radiator Cores
8708995070	Cable Traction Devices
8708995080	Parts
8708995085	Parts
8708995090	Parts
8708995200	Cast Iron Parts
8708995500	Vibration Control Goods
8708998005	Brake Hoses of Plastics
8708998045	Radiator Cores
8708998060	Cable Traction Devices
8708998080	Parts
8716905050	Parts for Trailers
8716905060	Parts for Trailers

Automotive Tires and Tubes

4011100010	Radial Tires for M.V.
4011100050	Pneumatic Tires for M.V.
4011101000	Radial Tires for M.V.
4011101010	Radial Tires-‘01
4011101020	Radial Tires-‘01
4011101030	Radial Tires-‘01
4011101040	Radial Tires-‘01
4011101050	Radial Tires-‘01
4011101060	Radial Tires-‘01
4011101070	Radial Tires-‘01
4011105000	Pneumatic Tires for M.V.
4011200005	Radial Tires for Lt. Trucks
4011200010	Pneumatic Tires for Lt. Truck
4011200015	Radial Tires for Buses/Truck
4011200020	Pneumatic Tires for Buses/Tr
4011200025	Radial Tires for Buses off
4011200030	Pneumatic Tires for Buses off
4011200035	Radial Tires for Buses off
4011200050	Pneumatic Tires for Buses off
4011201005	Radial Tires for Lt. Trucks
4011201015	Pneumatic Tires for Buses/Tr
4011201025	Radial Tires for Buses off
4011201035	Pneumatic Tires for Buses off
4011205010	Tires, ex. Radial for Lt. Truc
4011205020	Pneumatic Tires for Buses
4011205030	Tires, ex. Radial, for Bus
4011205050	Pneumatic Tires for Bus
4012104005	Retreaded Tires for M.V.
4012104015	Retreaded Tires for Light on

Automotive Tires and Tubes

4011100010	Radial Tires for M.V.
4011100050	Pneumatic Tires for M.V.
4011101000	Radial Tires for M.V.
4011105000	Pneumatic Tires for M.V.
4011200005	Radial Tires for Lt. Trucks
4011200010	Pneumatic Tires for Lt. Truck
4011200015	Radial Tires for Buses/Truck
4011200020	Pneumatic Tires for Buses/Tr
4011200025	Radial Tires for Buses off
4011200030	Pneumatic Tires for Buses off
4011200035	Radial Tires for Buses off
4011200050	Pneumatic Tires for Buses off
4011201005	Radial Tires for Lt. Trucks
4011201015	Pneumatic Tires for Buses/Tr
4011201025	Radial Tires for Buses off
4011201035	Pneumatic Tires for Buses off
4011205010	Tires, ex Radial, for Lt. Truc
4011205020	Pneumatic Tires for Buses
4011205030	Tires, ex Radial for Bus/Tr
4011205050	Pneumatic Tire for Bus/Tr
4012105020	Retreaded Tires Bus/Truck
4012106000	Other Retreaded Tires
4012200000	Used Pneumatic Tires
4013100010	Inner Tubes
4013100020	Inner Tubes
4013900000	Other Inner Tubes

4012104025	Retreaded Tires for Bus/Truc
4012104035	Retreaded Tires for Bus/Truc
4012105005	Retreaded Radial Tires M.V.
4012105009	Retreaded Tires for M.V.
4012105015	Retreaded Radial Tires Bus
4012105019	Retreaded Tires for Lt. Truck
4012105025	Retreaded Radial Tires Bus
4012105029	Retreaded Tires for Bus/Truc
4012105035	Retreaded Radial Tires Bus
4012105050	Retreaded Tires for Bus/Truc
4012108009	Retreaded Tires for M.V.
4012108019	Retreaded Tires for Lt. Truck
4012108029	Retreaded Tires for Bus/Truc
4012108050	Retreaded Tires for Bus, ex.
4012205000	Used Pneumatic Tires
4012206000	Used Pneumatic Tires
4013100010	Inner Tubes
4013100020	Inner Tubes

HTS Codes Numerically Ordered

HTS Codes for Import	
3819000000	Brake Fluid
3819000010	Brake Fluid
3819000090	Other Liquids
3820000000	Anti-Freeze
4009500020	Brake Hoses
4010101020	Belts
4011100010	Radial Tires for M.V.
4011100050	Pneumatic Tires for M.V.
4011101000	Radial Tires for M.V.
4011101010	Radial Tires-‘01
4011101020	Radial Tires-‘01
4011101030	Radial Tires-‘01
4011101040	Radial Tires-‘01
4011101050	Radial Tires-‘01
4011101060	Radial Tires-‘01
4011101070	Radial Tires-‘01
4011105000	Pneumatic Tires for M.V.
4011200005	Radial Tires for Lt. Trucks

Schedule B Codes for Export	
3819000000	Brake Fluid
3820000000	Anti-Freeze
4009500020	Brake Hoses
4011100010	Radial Tires for M.V.
4011100050	Pneumatic Tires for M.V.
4011101000	Radial Tires for M.V.
4011105000	Pneumatic Tires for M.V.
4011200005	Radial Tires for Lt. Trucks
4011200010	Pneumatic Tires for Lt. Truck
4011200015	Radial Tires for Buses/Truck
4011200020	Pneumatic Tires for Buses/Tr
4011200025	Radial Tires for Buses off
4011200030	Pneumatic Tires for Buses off
4011200035	Radial Tires for Buses off
4011200050	Pneumatic Tires for Buses off
4011201005	Radial Tires for Lt. Trucks
4011201015	Pneumatic Tires for Buses/Tr
4011201025	Radial Tires for Buses off

4011200010	Pneumatic Tires for Lt. Truck
4011200015	Radial Tires for Buses/Truck
4011200020	Pneumatic Tires for Buses/Tr
4011200025	Radial Tires for Buses off
4011200030	Pneumatic Tires for Buses off
4011200035	Radial Tires for Buses off
4011200050	Pneumatic Tires for Buses off
4011201005	Radial Tires for Lt. Trucks
4011201015	Pneumatic Tires for Buses/Tr
4011201025	Radial Tires for Buses off
4011201035	Pneumatic Tires for Buses off
4011205010	Tires, ex. Radial for Lt. Truc
4011205020	Pneumatic Tires for Buses
4011205030	Tires, ex. Radial, for Bus
4011205050	Pneumatic Tires for Bus
4012104005	Retreaded Tires for M.V.
4012104015	Retreaded Tires for Light on
4012104025	Retreaded Tires for Bus/Truc
4012104035	Retreaded Tires for Bus/Truc
4012105005	Retreaded Radial Tires M.V.
4012105009	Retreaded Tires for M.V.
4012105015	Retreaded Radial Tires Bus
4012105019	Retreaded Tires for Lt. Truck
4012105025	Retreaded Radial Tires Bus
4012105029	Retreaded Tires for Bus/Truc
4012105035	Retreaded Radial Tires Bus
4012105050	Retreaded Tires for Bus/Truc
4012108009	Retreaded Tires for M.V.
4012108019	Retreaded Tires for Lt. Truck
4012108029	Retreaded Tires for Bus/Truc
4012108050	Retreaded Tires for Bus, ex.
4012205000	Used Pneumatic Tires
4012206000	Used Pneumatic Tires
4013100010	Inner Tubes
4013100020	Inner Tubes
4016931010	O-Rings
4016931020	Oil Seals
4016931050	Gaskets
4016931090	Gaskets
4016993000	Vibration Control
4016995010	Mechanical Articles
4016995500	Vibration Control
4016996010	Mechanical Articles
6813100050	Brake Linings & Pads
4011201035	Pneumatic Tires for Buses off
4011205010	Tires, ex Radial, for Lt. Truc
4011205020	Pneumatic Tires for Buses
4011205030	Tires, ex Radial for Bus/Tr
4011205050	Pneumatic Tire for Bus/Tr
4012105020	Retreaded Tires Bus/Trucks
4012106000	Other Retreaded Tires
4012200000	Used Pneumatic Tires
4013100010	Inner Tubes
4013100020	Inner Tubes
4013900000	Other Inner Tubes
4016995010	Mechanical Articles
6813100000	Brake Linings & Pads
6813900000	Other Friction Materials
7007110000	Safety Glass
7007211000	Windshields
7007215000	Safety Glass
7009100000	Rear-View Mirrors
7320100000	Leaf Springs
7320201000	Helical Springs
8301200000	Locks
8302103000	Hinges
8302300000	Other Mountings
8407342000	Spark Ig Piston Engines
8407342030	Spark Ig Engine
8407342090	Other Engine
8408202000	Compression Ignition Engine
8409914000	Pts for Engines
8409994000	Other Pts for Engines
8413301000	Fuel Injection Pumps
8413309000	Fuel, Lub., Cooling Pumps
8413911000	Parts of Fuel Injection Pumps
8414308030	Air Conditioners
8414308030	Compressors
8414593000	Turbochargers
8414596040	Fans
8414598040	Fans & Blowers
8415200000	Air Conditioners
8415830040	Air Conditioners
8421230000	Oil or Fuel Filters
8421310000	Intake Air Filters
8421394000	Catalytic Converters
8425490000	Jacks
8426910000	Lifting Machinery

6813900050	Friction Materials
7007110000	Safety Glass
7007110010	Safety Glass
7007211000	Windshields
7007211010	Windshields
7007215000	Safety Glass
7009100000	Rear-View Mirrors
7318160010	Lugnuts
7318160015	Lugnuts
7318160030	Lugnuts
7318160045	Other Lugnuts
7320100015	Leaf Springs
7320103000	Leaf Springs
7320106015	Leaf Springs
7320106060	Leaf Springs
7320201000	Helical Springs
8301200000	Locks
8301200030	Steering Wheel Immobilizers
8301200060	Other Locks
8302103000	Hinges
8302303000	Other Mountings
8302303010	Pneumatic Cylinders
8302303060	Other Mountings
8302306000	Other Mountings
8407341400	Engines
8407341540	Engines
8407341580	Engines
8407341800	Engines
8407342040	Engines
8407342080	Engines
8407344400	Engines
8407344540	Engines
8407344580	Engines
8407344800	Engines
8408202000	Compression Ignition Engine
8409911040	Cast Iron Parts
8409913000	Aluminum Cylinder Heads
8409915010	Connecting Rods
8409915080	Parts
8409919110	Connecting Rods
8409919190	Parts
8409919910	Connecting Rods
8409991040	Cast-Iron parts
8409999110	Connecting Rods
8431100090	Parts of Winches, Jacks
8482101000	Ball Bearings
8482105044	Radial Bearings
8482105048	Radial Bearings
8482200020	Tapered Roller Bearings
8482200030	Tapered Roller Bearings
8482200040	Tapered Roller Bearings
8482200060	Tapered Roller Bearings
8482200070	Tapered Roller Bearings
8482200080	Tapered Roller Bearings
8482400000	Needle Roller Bearings
8482500000	Other Cylindrical Bearings
8483101020	Transmission Shafts
8483103010	Camshafts & Crankshafts
8507100050	Storage Batteries
8507100060	Storage Batteries
8507904000	Parts for Lead Acid Batteries
8507904050	Parts for Batteries
8511100000	Spark Plugs
8511200000	Magnetos, Dynamos
8511300040	Distributors
8511300080	Ignition Coils
8511400000	Starter Motors
8511500000	Generators
8511802000	Voltage Regulators
8511806000	Other Engine Ignition Equip.
8511906020	Parts for Distributor Sets
8511908000	Other Elec Ignition Equip
8512202000	Lighting Equipment
8512204000	Signaling Equipment
8512300000	Sound Signaling Equipment
8512402000	Defrosters
8512404000	Windshield Wipers
8512902000	Parts of Signaling Equip.
8512905000	Parts of Lighting Equipment
8512908000	Other Pts of Elec Equipment
8525201000	CB Transmission Apparatus
8525206000	Other Transmission Apparat
8525209020	Radio Telephones
8525209050	Radio Telephones
8527210000	Radiobroadcast Receivers
8527290000	Other Radiobroadcast Receiv
8531800038	Radar Detectors
8531809038	Radar Detectors

8409999190	Parts
8413301000	Fuel Injection Pumps
8413309000	Fuel, Lub., or Cooling Pumps
8413309030	Fuel Pumps
8413309060	Lubricating Pumps
8413309090	Cooling Medium Pumps
8413911000	Parts of Fuel Injection Pumps
8414308030	Compressors
8414593000	Turbochargers
8414596040	Fans
8414598040	Fans & Blowers
8415200000	Air Conditioners
8415830040	Air Conditioners
8415900040	Parts of Air Conditioners
8415908040	Parts of Air Conditioners
8415908045	Parts of Air Conditioners
8421230000	Oil or Fuel Filters
8421310000	Intake Air Filters
8421394000	Catalytic Converters
8425490000	Jacks
8426910000	Lifting Machinery
8431100090	Parts of Winches, Jacks
8482101000	Ball Bearings
8482101040	Ball Bearings
8482101080	Ball Bearings
8482105044	Radial Bearings
8482105048	Radial Bearings
8482200010	Tapered Roller Bearings
8482200020	Tapered Roller Bearings
8482200030	Tapered Roller Bearings
8482200040	Tapered Roller Bearings
8482200050	Tapered Roller Bearings
8482200060	Tapered Roller Bearings
8482200070	Tapered Roller Bearings
8482200080	Tapered Roller Bearings
8482400000	Needle Roller Bearings
8482500000	Other Cylindrical Bearings
8483101030	Camshafts and Crankshafts
8483103010	Camshafts and Crankshafts
8501324500	Electric Motors
8507100060	Storage Batteries
8507304000	Nickel-Cadmium Batteries
8507904000	Parts for Lead Acid Batteries
8511100000	Spark Plugs
8536410005	Signaling Flashers
8539100020	Beam Lamp Units
8539100040	Beam Lamp Units
8544300000	Ignition Wiring Sets
8707100020	Bodies
8707100040	Bodies
8707905020	Bodies
8707905040	Bodies
8707905060	Bodies
8707905080	Bodies
8708100010	Stampings of Bumpers
8708100050	Bumpers and Parts
8708210000	Seat Belts
8708290010	Stampings of Bodies
8708290025	Truck Caps
8708290050	Parts & Access. of Bodies
8708290060	Parts & Access. of Bodies
8708295025	Truck Caps
8708295070	Other Pts & Access of Bodies
8708310000	Mounted Brake Linings
8708390000	Other Brakes
8708401000	Gear Boxes
8708402000	Gear Boxes
8708406000	Gear Boxes
8708500050	Drive Axles
8708600050	Non-Driving Axles
8708700050	Road Wheels & Pts.
8708805000	Suspension Shock Absorbers
8708915000	Radiators
8708925000	Radiators
8708935000	Clutches and Parts
8708945000	Steering Wheel, Column
8708990045	Slide-in Campers
8708990050	Pts & Access.
8708990070	Wheel Hub Units
8708990090	Other Pts & Access
8708990095	Pts & Access
8708995800	Wheel Hub Units
8708996100	Airbags
8708998015	Wheel Hub Units
8708998030	Slide-In Campers
8708998075	Other Pts & Access
8716900000	Parts of Trailers
8716905000	Parts

8511200000	Magnetos, Dynamos
8511300040	Distributors
8511300080	Ignition Coils
8511400000	Starter Motors
8511500000	Generators
8511802000	Voltage Regulators
8511806000	Other Engine Ignition Equip.
8511902000	Parts for Voltage Regulators
8511906020	Parts for Distributer Sets
8511906040	Other Parts Engine Ignition
8512202000	Lighting Equipment
8512202040	Lighting Equipment
8512204000	Signaling Equipment
8512204040	Signaling Equipment
8512300020	Horns
8512300040	Sound Signaling Equipment
8512402000	Defrosters
8512404000	Windshield Wipers
8512902000	Parts of Signaling Equipment
8512906000	Lighting Equipment Parts
8512907000	Parts of Defrosters
8512909000	Parts of Windshield Wipers
8519910020	Cassette Tape Players
8519911000	Cassette Tape Players
8519934000	Cassette Tape Players
8525201500	Radio Transceivers
8525206020	Radio Telephones
8525209020	Radio Telephones
8527211005	Radio-Tape Players (CDs)
8527211010	Radio-Tape Players
8527211015	Radio-Tape Players
8527211020	Radio-Tape Players
8527211030	Radio-Tape Players
8527214000	Radio-Combinations
8527214040	Radio-Combinations
8527214800	Radio-Combinations
8527290020	Radio-Receivers AM
8527290040	Radio-Receivers FM/AM
8527290060	Radio-Receivers
8527294000	Radio-Receivers FM/AM
8527298020	Radio-Receivers AM
8527298060	Radio-Receivers
8531800038	Radar Detectors
8531808038	Radar Detectors
9029100000	Revolution Counters
9029205000	Other Speedometers/Tacho
9029900000	Pts & Access of Rev Counter
9104000000	Inst Panel Clocks
9401200000	Seats
9401901000	Seat Parts
9401901010	Seat Parts of Leather
9401901080	Seat Parts
9403901000	Parts of Furnitures

8531809038	Radar Detectors
8536410005	Signaling Flashers
8539100010	Beam Lamp Units
8539100020	Beam Lamp
8539100040	Beam Lamp
8539100050	Beam Lamp Units
8539212040	Halogen Lamps
8544300000	Ignition Wiring Sets
8707100020	Bodies
8707100040	Bodies
8707905020	Bodies
8707905040	Bodies
8707905060	Bodies
8707905080	Bodies
8708100010	Stampings of Bumpers
8708100050	Bumpers and Parts
8708103010	Stampings of Bumpers
8708103050	Bumpers
8708106010	Stampings Parts of Bumpers
8708106050	Parts of Bumpers
8708210000	Seat Belts
8708290010	Stampings of Bodies
8708290025	Truck Caps
8708290050	Parts & Access. of Bodies
8708290060	Parts & Access. of Bodies
8708291000	Inflators & Modules Airbags
8708291500	Door Assemblies
8708292000	Body Stampings
8708295010	Stampings
8708295025	Truck Caps
8708295060	Other Parts
8708315000	Mounted Brake Linings
8708395010	Brake Drums & Rotors
8708395050	Brakes & Servo-Brakes
8708401000	Gear Boxes
8708402000	Gear Boxes
8708405000	Gear Boxes
8708503000	Drive Axles
8708505000	Drive Axles
8708508000	Drive Axles
8708605000	Non-Driving Axles
8708608010	Spindles
8708608050	Non-Driving Axles
8708704530	Road Wheels

8708704545	Road Wheels
8708704560	Wheel Rims
8708706030	Wheel Covers
8708706045	Wheel Covers & Hubcaps
8708706060	Parts & Access. for Wheels
8708708010	Wheels
8708708015	Wheels
8708708025	Wheels
8708708030	Wheels
8708708035	Wheels
8708708045	Wheel Rims
8708708050	Parts & Access. for Wheels
8708708060	Wheel Covers & Hubcaps
8708708075	Parts & Access. for Wheels
8708803000	Suspension Shock Absorbers
8708804500	Suspension Shock Absorbers
8708805000	Suspension Shock Absorbers
8708915000	Radiators
8708925000	Radiators
8708935000	Clutches & Parts
8708936000	Clutches
8708937500	Parts of Clutches
8708945000	Steering Wheels, Columns
8708993000	Cast Iron Parts
8708995005	Brake Hoses
8708995010	Steering Shaft Assemblies
8708995020	Wheel Hub Units
8708995030	Beam Hanger Brackets
8708995045	Slide in Campers
8708995060	Radiator Cores
8708995070	Cable Traction Devices
8708995080	Parts
8708995085	Parts
8708995090	Parts
8708995200	Cast Iron Parts
8708995500	Vibration Control Goods
8708995800	Wheel Hub Units
8708996100	Airbags
8708996400	Half Shafts & Drive Shafts
8708996700	Parts (joints?)
8708996710	Universal Joints-‘01
8708996720	Universal Joints- ‘01
8708996790	Other Joints-‘01
8708997030	Beam Hanger Brackets

8708997060	Suspension System Parts
8708997330	Steering Shaft Assemblies
8708997360	Parts for Steering Systems
8708998005	Brake Hoses of Plastics
8708998015	Wheel Hub Units
8708998045	Radiator Cores
8708998060	Cable Traction Devices
8708998080	Parts
8716905010	Axles & Parts for Trailers
8716905030	Wheels for Trailers
8716905050	Parts for Trailers
8716905060	Parts for Trailers
8718995025	Wheel Hub Units
9029104000	Taximeters
9029108000	Revolution Counters, Odom.
9029204080	Other Speedometers, Tach.
9029902000	Parts & Access of Taximeters
9029908040	Parts & Access of Speed/Tac
9029908080	Parts & Access of Odometers
9104002510	MVT & Cases Panel Clock
9104004000	Instrument Panel Clocks
9104004510	Movements of Inst. Clock
9401200000	Seats
9401200010	Child Safety Seats
9401200090	Seats
9401901000	Seat Parts
9401901010	Seat Parts of Leather
9401901080	Seat Parts
9403406000	Wooden Furniture for M.V.
9403506000	Wooden Furniture for M.V.
9403901000?	Furniture
9403901040	Parts of Furniture for M.V.
9403901080	Parts of Furniture for M.V.
9802004020	Combust. Engine Repair
9802005030	Value of Repairs on Engines

North American Industry Classification System (NAICS)

336211	Motor Vehicle Body Mfg
336311	Carburetor, Piston, Piston Ring, & Valve Mfg

336312	Gasoline Engine & Engine Parts Mfg
336321	Vehicular Lighting Equipment Mfg
336322	Other Motor Vehicle Electrical & Electronic Equipment Mfg
336330	Motor Vehicle Steering & Suspension Component
336340	Motor Vehicle Brake System Mfg
336350	Motor Vehicle Transmission & Power Train Parts Mfg
336360	Motor Vehicle Seating & Interior Trim Mfg
336370	Motor Vehicle Metal Stamping
336391	Motor Vehicle Air-Conditioning Mfg
336399	All Other Motor Vehicle Parts Mfg

Description of NAICS codes by HTS codes

336211 Motor Vehicle Bodies

HTS Codes		Schedule B	
8707100020	Bodies Pass. Autos	8707100020	Bodies Pass. Autos
8707905020	Bodies for Vehicles	8707905020	Bodies Vehicles
8707905040	Bodies for Vehicles	8707905040	Bodies Vehicles
8707905060	Bodies for Vehicles	8707905060	Bodies Vehicles
8707905080	Bodies for Vehicles	8707905080	Bodies Vehicles

336311 Carburetor, Piston, Piston Ring, & Valve Mfg
336312 Motor Vehicle Gasoline Engines & Engine Parts

HTS Codes		Schedule B	
8407322040	SPK-IGN Eng Used	8407322000	Spark Ign Eng
8407322080	SPK-IGN Eng New	8407332000	Spark Ign Eng
8407336040	SPK-IGN Eng Used	8407342030	Spark Ign Eng
8407336080	SPK-IGN Eng New	8407342090	Spark Ign eng
8407341400	SPK-IGN Eng Used	8409914000	Parts Spark Ign Eng
8407341800	SPK-IGN Eng New	8413309000	Fuel, Lub, Cool Pump
8407344400	SPK-IGN Eng Used	8413919010	Parts Fuel, L, C Pump
8407344800	SPK-IGN Eng New	8414596040	Fans & Blowers
8409911040	Cast Iron Parts	8483101020	Cam/Crankshaft
8409913000	Alum. Cylinder Head		
8409915010	Conn Rods		
8409915080	Parts for SP-IG Eng		
8413309030	Fuel Pumps		
8413309060	Lub Pumps for Eng		
8413309090	Cooling Med Pumps		
8413919010	Parts, Fuel, Lub, Med		
8414596040	Fans		

8483101030	Cam/Crankshaft
8483506000	Flywheels

336321 Vehicular Lighting Equipment

HTS Codes

8512102000	Bike Lighting Equip
8512104000	Bike Visual Signaling
8512202040	Lighting Equip
8512202080	Lightg Equip for Veh.
8512204040	Vis Sig Equip
8512204080	Vis Sig Equip for Veh
8512902000	Parts of Veh Sig Eq
8512904000	Parts of Lightg Bikes
8512906000	Veh Lightg Equip Par
8536410005	Auto Sig Flashers

Schedule B

8512100000	Lgtg/Vis Sig Eq Bike
8512202000	Veh Lighting Equip
8512204000	Veh Vis Signaling Eq
8512902000	Parts Signaling Equip
8512905000	Parts Lgtg Equip
8536410005	Auto Sig Flashers

336322 Motor Vehicle Electrical & Electronic Equipment

HTS Codes

8511100000	IC Eng Spark Plugs
8511200000	IC Eng Magnetos
8511300040	IC Eng Distributors
8511300080	IC Eng Ignit. Coils
8511400000	IC Eng Starter Motors
8511500000	IC Eng Generators
8511802000	IC Eng Voltage Reg
8511804000	IC Eng Voltage Reg
8511806000	Other IC Eng Equip
8511902000	Parts IC Eng Ignit
8511904000	Parts IC Eng Volt Reg
8511906020	Parts IC Eng Dstr Pts
8511906040	Other Parts for IC En
8512402000	Veh. Defrosters
8512404000	Veh. Windshield Wip
8512907000	Parts Veh. Defrosters
8512909000	Parts Windshield Wip
8544300000	Insulated Wiring Veh
9032892000	Auto Volt Regulators
9032902000	Pts, Volt Regulators

Schedule B

8511100000	IC Eng Spark Plugs
8511200000	IC Eng Magnetos
8511300040	IC Eng Distributors
8511300080	IC Eng Ignition Coils
8511400000	IC Eng Starter Motors
8511500000	IC Eng Generators
8511802000	IC Eng Voltage Reg
8511804000	IC Eng Voltage Reg
8511806000	Other IC Eng Ign Eq
8511906020	Parts IC Eng Dstbr Pt
8511908000	Parts Electrical App
8512402000	Veh Defrosters
8512404000	Veh Windshield Wipe
8512908000	Pts Windshield Wiper
8544300000	Insulated Wiring Sets
9032893000	Voltage Regulators

336330 Motor Vehicle Steering & Suspension Components

HTS Codes		Schedule B	
8708803000	Suspension Shock Ab	8708805000	Sus Shock Absorbers
8708804500	Suspension Shock Ab	8708945000	Steering Wheel Sys
8708945000	Steering Wh Systems		
8708997030	Beam Hanger Brack		
8708997060	Other Pt Susp System		
8708997330	Steering Shaft Assem		
8708997360	Parts NESOI		

336340 Motor Vehicle Brake System

HTS Codes		Schedule B	
4009500020	Rubber Brake Hoses	4009500020	Brake Hoses
6813100010	Brk Lngs & Pads	6813100000	Brk Lngs, Asbestos
6813100050	Brk Lngs & Pads Asb	6813900000	Other Frict Materials
6813900010	Asbstos BSD Friction	8708310000	Mounted Brk Lngs
6813900050	Asbstos Friction Mat	8708390000	Brks & Servo-Brks
8708315000	Mounted Brk Lngs		
8708395010	Brk Drums		
8708395050	Brks NESOI		
8708998005	Brk Hoses		

336350 Motor Vehicle Transmission & Power Train Parts

HTS Codes		Schedule B	
8708401000	Gear Boxes	8708401000	Gear Boxes, Parts
8708402000	Gear Boxes	8708402000	Gear Boxes & Parts
8708405000	Gear Boxes	8708406000	Gear Boxes for Veh
8708505000	Drive Axles	8708500050	Drive Axles
8708508000	Drive Axles	8708600050	Non-Driving Axles
8708605000	Non-Driving Axles	8708935000	Clutches & Parts
8708608010	Spindles	8708995800	Wheel Hub Units
8708608050	Non-Drive Axles	8708998015	Wheel Hub Units
8708936000	Clutches		
8708937500	Parts of Clutches		
8708995800	Wheel Hub Units		
8708996400	Parts of Motor Veh		
8708996700	Parts of Motor Veh		
8708998015	Wheel Hub Units		

336360 Motor Vehicle Seating & Interior Trim

HTS Codes		Schedule B	
8708210000	Safety Seat Belts & Pt	8708210000	Safety Seat Belts & Pt

9401104000	Seats Aircraft
9401108000	Seats Aircraft
9401200010	Child Safety Seats
9401200090	Seats
9401901080	Seat Parts

9401100000	Seats Aircraft
9401200000	Seats Motor Veh
9401901080	Seat Parts Motor Veh

336370 Motor Vehicle Metal Stampings

HTS Codes

8708103010	Stampings Bumpers
8708106010	Stampings for Parts
8708292000	Body Stampings
8708295010	Stampings of Other

Schedule B

8708100010	Stampings of Bumper
8708290010	Stampings of Bodies

336391 Motor Vehicle Air Conditioning

HTS Codes

8414308030	Compressors
8415200000	Auto Air Conditioners
8415908045	Parts of Auto Air Con

Schedule B

8414308030	Compressors, Refri
8415200000	Auto Air Conditioners

336399 Motor Vehicle Parts

HTS Codes

8421230000	Oil/Fuel Filters
8421310000	Intake Air Filters
8421394000	Catalytic Converters
8483509040	Grooved Pulleys
8483509080	Pulley Blocks
8512300020	Motor Veh. Horns
8708103050	Bumpers
8708106050	Pts of Bumpers
8708291000	Inflators Airbags
8708291500	Door Assemblies
8708295060	Other Pts & Access
8708704530	Road Wheels
8708704545	Road Wheels Alum
8708704560	Road Wheels ex Alu
8708706030	Wheel rims
8708706045	Wheel Covers & Hub
8708706060	Pts & Acc for Wheels
8708915000	Radiators
8708925000	Mufflers & Exhaust
8708995200	Cast Iron Pts of Veh

Schedule B

8421123000	Oil/Fuel Filters
8421310000	Intake Air Filters
8421394000	Catalytic Converters
8483508030	Grooved Pulleys
8708508080	Flywheels, Pulley Blk
8708100050	Bumpers & Parts
8708295070	Pts & Acc of Bodies
8708700050	Road Wheels & Pts
8708915000	Radiators
8708925000	Mufflers & Exhaust
8708996100	Airbags for Veh.
8708998075	Pts & Acc for Veh
8716900000	Parts NESOI Trailers

8708995500	Vib Ctrl Goods
8708996100	Parts Airbags
8708998045	Radiator Cores
8708998060	Cable Traction Devic
8708998080	Parts NESOI
8716905010	Axles & Parts Trailer
8716905030	Wheel Trailers
8716905060	Parts NESO Trailers

Standard Industry Classification Codes (SIC)

3465 Automotive Stampings
3592 Carburetors, Pistons, Piston Rings, and Valves
3647 Vehicular Lighting
3691 Storage Batteries
3694 Engine Electrical Equipment
3714 Other Motor Vehicle Parts

NAICS Codes include products from the following SIC codes

2396 Automotive & Apparel Trimmings
2399 Fabricated Textile Products
2531 Public Building & Related Furniture
3292 Asbestos Products
3465 Automotive Stampings
3519 Internal Combustion Engines, Not Elsewhere Classified
3585 Refrigeration & Heating Equipment
3592 Carburetors, Pistons, Rings, & Valves
3647 Vehicular Lighting Equipment
3679 Electronic Components, Not Elsewhere Classified
3691 Storage Batteries
3694 Engine Electrical Equipment
3711 Motor Vehicles and Car Bodies
3713 Truck & Bus Bodies
3714 Motor Vehicle Parts and Accessories

SITC

6251 Tires
62510 Tires
6252 Tires
62520 Tires
6647 Glass
66471 Glass
66472 Glass
66481 Glass
69915 Mount Fittings
713 Engines
7132 Internal Combustion Engines
71321 Internal Combustion Engines
71322 Engines
71323 Engines
71391 Engines
7422 Pumps
74291 Pumps
74343 Fans
74363 Oil Filters
74364 Intake Air Filters
7444 Jacks for Vehicles
74443 Jacks for Vehicles
74449 Jacks for Vehicles
748 Transmission
7481 Transmission
74810 Transmission
7489 Parts, NES
74890 For Transmission
76211 Radios
76212 Radios
77313 Electric Wires
77812 Batteries
77823 Lights
77831 Electric lighting
77833 Parts of Ignition
77834 Signaling Devices
77835 Parts of Signal Devices
784 Parts of Vehicles
7841 Chassis
78410 Chassis
7842 Bodies
78421 Bodies
78425 Bodies
7843 Parts
78431 Bumpers
78432 Other
78433 Brakes
78434 Gear Boxes
78435 Drive Axles
78436 Non-Driving Axles
78439 Parts and Accessories
78689 Parts of Trailers
82112 Seats
87321 Taximeters
87325 Speedometers and Tachometers
87329 Parts of Revolution Counters
88571 Instrument Panels

HTS Six-digit level automotive parts codes used for United Nations data

381900	840991	851120	870831
382000	840999	851130	870839
400950	841330	851140	870840
401010	841391	851150	870850
401120	841430	851180	870860
401210	841459	851190	870870
401220	841520	851220	870880
401310	841583	851230	870891
401593	841590	851240	870892
401693	842123	851290	870893
401699	842131	851991	870894
681310	842139	851993	870899
681390	842549	852520	871690
700711	842691	852721	871899
700721	843110	852729	902910
700910	848210	853180	902920
731816	848220	853641	902990
732010	848240	853910	910400
732020	848250	853921	940120
830120	848310	854430	940190
830210	850132	870710	940340
830230	850710	870790	940350
840734	850730	870810	940390
840820	850790	870821	980200
840990	851110	870829	

Table 1

Statistics for All U.S. Manufacturing Establishments

	1997	Chg*	1998	Chg*	1999	Chg*	2000	Chg*	2001	Chg*
All Employees	16,805,127		16,944,977	0.8%	16,685,639	-1.5%	16,651,904	-0.2%	15,879,477	-4.6%
Empoyee Payroll ($1,000)	569,808,845		586,957,735	3.0%	601,472,998	2.5%	617,211,426	2.6%	593,050,590	-3.9%
Production Workers	12,065,257		12,189,519	1.0%	11,977,196	-1.7%	11,943,646	-0.3%	11,235,111	-5.9%
Production Worker Hours (1,000)	24,183,271		24,582,584	1.7%	24,209,596	-1.5%	23,954,395	-1.1%	22,346,746	-6.7%
Production Worker Wages ($1,000)	338,267,197		348,953,570	3.2%	355,790,664	2.0%	363,380,819	2.1%	342,990,489	-5.6%
Value of Industry Shipments ($1,000)**	3,834,700,920		3,899,809,755	1.7%	4,031,884,590	3.4%	4,208,582,047	4.4%	3,970,499,812	-5.7%

Source: *Annual Survey of Manufacturers, 2001* , released February 2003 by U.S. Department of Commerce, Bureau of the Census. * = From Previous Year

** = Industry Shipments are products shipped by industry establishments.

Table 2

Statistics for U.S. Motor Vehicle Parts Manufacturing, NAICS 336211 and 3363

	1997	Chg*	1998	Chg*	1999	Chg*	2000	Chg*	2001	Chg*
All Employees	822,686		832,870	1.2%	842,344	1.1%	846,419	0.5%	777,774	-8.1%
Empoyee Payroll ($1,000)	32,186,047		32,649,966	1.4%	35,980,174	10.2%	36,740,593	2.1%	32,825,802	-10.7%
Production Workers	662,455		669,341	1.0%	680,104	1.6%	676,449	-0.5%	615,547	-9.0%
Production Worker Hours (1,000)	1,371,296		1,386,337	1.1%	1,431,002	3.2%	1,389,253	-2.9%	1,228,624	-11.6%
Production Worker Wages ($1,000)	23,997,423		24,086,605	0.4%	27,035,565	12.2%	27,221,020	0.7%	23,682,724	-13.0%
Value of Industry Shipments ($1,000)**	181,507,106		187,458,951	3.3%	206,622,875	10.2%	208,179,966	0.8%	190,711,569	-8.4%
Value of Product Shipments ($1,000)***	179,709,666		186,966,036	4.0%	205,669,893	10.0%	206,443,783	0.4%	188,487,002	-8.7%

Source: *Annual Survey of Manufacturers, 2001* , released February 2003 by U.S. Department of Commerce, Bureau of the Census. * = From Previous Year

** = Industry Shipments are products shipped by industry establishments. *** = Product Shipments are all products regardless of industry establishment.

Table 3

U.S. Exports of Automotive Parts ($millions)

	1997	%Chg	1998	%Chg	1999	%Chg	2000	%Chg	2001	%Chg	2002	%Chg	2003	%Chg
Parts Exports	41,119		46,807	13.8%	49,901	6.6%	53,720	7.7%	49,794	-7.3%	50,087	0.6%	48,501	-3.2%
U.S. Merchandise Exports	689,182		682,138	-1.0%	695,797	2.0%	781,918	12.4%	729,100	-6.8%	693,302	-4.9%	724,030	4.4%
% Share	6.0%		6.9%		7.2%		6.9%		6.8%		7.2%		6.7%	

Source: U.S. Census Bureau

Table 4

Total World Original Equipment Parts Market

	1997	% Change	1998	% Change	1999	% Change	2000	% Change	2001	% Change	2002	% Change
Parts Exports ($millions)	635,822		657,467	3.4%	775,638	18.0%	759,315	-2.1%	711,808	-6.3%	729,656	2.5%
Total OE Parts per Vehicle ($)	10,966		12,613	15.0%	14,053	11.4%	13,242	-5.8%	12,892	-2.6%	12,641	-1.9%

Source: OESA Industry Review 2003

Table 5

Employment in the U.S. Automotive Parts Industry, Thousands

NAICS	Description	1997	% Change	1998	% Change	1999	% Change	2000	% Change	2001	% Change	2002	% Change	2003	% Change
336211	Motor Vehicle Bodies	73.3		76.1	3.8%	80.4	5.7%	81.8	1.7%	75.8	-7.3%	68.3	-9.9%	60.7	-11.1%
3363	Motor Vehicle Parts	808.9		818.2	1.1%	837.1	2.3%	839.5	0.3%	774.7	-7.7%	733.6	-5.3%	707.4	-3.6%
33631	MV Gasoline Engine and Parts	101.9		103.0	1.1%	104.3	1.3%	104.2	-0.1%	96.7	-7.2%	93.0	-3.8%	85.6	-8.0%
336311	Carburators, Pistons, Rings, and Valves	22.2		22.9	3.2%	23.4	2.2%	23.2	-0.9%	21.3	-8.2%	19.9	-6.6%	17.8	-10.6%
336312	Gasoline Engine and Engine Parts	79.8		80.1	0.4%	80.9	1.0%	81.0	0.1%	75.5	-6.8%	73.1	-3.2%	67.9	-7.1%
33632	MV Electric Equipment	127.8		129.4	1.3%	133.6	3.2%	133.6	0.0%	120.1	-10.1%	110.1	-8.3%	104.1	-5.4%
336321	Vehicular Lighting Equipment	18.4		18.6	1.1%	19.0	2.2%	19.1	0.5%	17.8	-6.8%	17.2	-3.4%	17.2	0.0%
336322	Other MV Electric Equpment	109.4		110.8	1.3%	114.5	3.3%	114.5	0.0%	102.3	-10.7%	92.9	-9.2%	86.9	-6.5%
33633	MV Steering and Suspension Parts	54.8		54.1	-1.3%	55.6	2.8%	55.7	0.2%	51.5	-7.5%	47.4	-8.0%	43.7	-7.8%
33634	MV Brake Systems	49.4		49.6	0.4%	50.1	1.0%	50.1	0.0%	46.6	-7.0%	45.3	-2.8%	46.0	1.5%
33635	MV Power Train Components	102.7		103.9	1.2%	104.2	0.3%	104.3	0.1%	95.7	-8.2%	91.7	-4.2%	93.0	1.4%
33636	MV Seating and Interior Trim	62.1		64.8	4.3%	68.1	5.1%	68.9	1.2%	64.9	-5.8%	62.0	-4.5%	59.4	-4.2%
33637	MV Metal Stamping	113.1		114.2	1.0%	120.6	5.6%	121.3	0.6%	111.6	-8.0%	105.5	-5.5%	102.9	-2.5%
33639	Other MV Parts	197.1		199.3	1.1%	200.7	0.7%	201.5	0.4%	187.5	-6.9%	178.5	-4.8%	172.7	-3.2%
336399	All other MV Parts	179.1		181.3	1.2%	181.8	0.3%	182.1	0.2%	169.7	-6.8%	163.5	-3.7%	158.6	-3.0%
Total	**336211+3363**	**882.2**		**894.3**	**1.4%**	**917.5**	**2.6%**	**921.3**	**0.4%**	**850.5**	**-7.7%**	**801.9**	**-5.7%**	**768.1**	**-4.2%**

Source: Bureau of Labor Statistics

Table 6

Employment in the U.S. Automotive Parts Industry

NAICS	1997	% Change	1998	% Change	1999	% Change	2000	% Change	2001	% Change	2002	% Change
Bodies and Body Parts												
336211	42,773		43,306	1.2%	43,170	-0.3%	43,844	1.6%	41,771	-4.7%		
336360	47,885		48,898	2.1%	55,455	13.4%	58,028	4.6%	52,670	-9.2%		
336370	126,668		123,214	-2.7%	118,695	-3.7%	117,012	-1.4%	112,488	-3.9%		
Total	217,326		215,418	-0.9%	217,320	0.9%	218,884	0.7%	206,929	-5.5%		
Chassis and Drivetrain Parts												
336330	48,676		47,682	-2.0%	48,747	2.2%	50,972	4.6%	47,015	-7.8%		
336340	43,146		45,807	6.2%	44,638	-2.6%	44,331	-0.7%	38,736	-12.6%		
336350	100,605		102,538	1.9%	111,338	8.6%	112,244	0.8%	98,753	-12.0%		
Total	192,427		196,027	1.9%	204,723	4.4%	207,547	1.4%	184,504	-11.1%		
Electrical and Electronic Parts												
336321	16,624		15,660	-5.8%	17,233	10.0%	15,055	-12.6%	14,665	-2.6%		
336322	97,572		99,295	1.8%	100,345	1.1%	102,564	2.2%	94,812	-7.6%		
336391	21,522		21,310	-1.0%	21,477	0.8%	20,393	-5.0%	19,594	-3.9%		
Total	135,718		136,265	0.4%	139,055	2.0%	138,012	-0.8%	129,071	-6.5%		
Engines and Engine Parts												
336311	17,241		17,706	2.7%	17,341	-2.1%	17,748	2.3%	16,656	-6.2%		
336312	80,582		80,887	0.4%	80,209	-0.8%	78,600	-2.0%	71,979	-8.4%		
Total	97,823		98,593	0.8%	97,550	-1.1%	96,348	-1.2%	88,635	-8.0%		
Miscellaneous Automotive Parts												
336399	179,392		186,567	4.0%	183,696	-1.5%	185,628	1.1%	168,635	-9.2%		
Total	179,392		186,567	4.0%	183,696	-1.5%	185,628	1.1%	168,635	-9.2%		
Total	**822,686**		**832,870**	**1.2%**	**842,344**	**1.1%**	**846,419**	**0.5%**	**777,774**	**-8.1%**		

Source: U.S. Department of Commerce, *Annual Survey of Manufacturers 2002* .

Table 7

Top 10 OE Suppliers for North America

	2000	NA Sales ($Millions)	2001	NA Sales ($Millions)	2002	NA Sales ($Millions)	2003	NA Sales ($Millions)
	Company		**Company**		**Company**		**Company**	
1	Delphi Corp	21,449	Delphi Corp.	18,867	Delphi Corp	19,656	Delphi Corp	19,450
2	Visteon Corp	15,041	Visteon Corp	11,736	Visteon Corp.	12,168	Visteon Corp.	11,080
3	Lear Corp.	8,601	Lear Corp	8,858	Lear Corp.	9,504	Lear Corp.	9,448
4	Johnson Controls Inc.	8,534	Johnson Controls Inc	7,353	Johnson Controls Inc.	7,687	Magna Int'l Inc.	9,100
5	Dana Corp.	7,100	Magna Intl Inc	7,140	Magna Int'l Inc.	7,650	Johnson Controls Inc.	8,021
6	Magna Intl Inc.	6,868	Dana Corp	5,250	Dana Corp.	5,340	Dana Corp.	5,543
7	Robert Bosch Corp.	5,874	TRW Automotive	4,992	TRW Automotive	4,950	Robert Bosch Corp.	5,000
8	TRW Automotive	5,202	Robert Bosch Corp.	4,120	Robert Bosch Corp.	4,390	TRW Automotive	4,633
9	ArvinMeritor Inc.	4,154	Denso Intl America Inc.	3,689	Denso Int'l America Inc.	3,769	Denso Int'l America Inc.	3,894
10	Denso Intl America Inc.	3,803	ArvinMeritor Inc	2,045	American Axle & Manu.**	3,341	ThyssenKrupp***	3,650
Top 10 Total		86,626		74,050		78,455		79,819
Top 150 Total		189,400		166,400		182,100		185,258

Source: Automotive News. *calculated estimate. **American Axle and Manufacturing Holdings Inc. ***ThyssenKrupp Automotive AG

Table 8

Top 10 Global OEM Suppliers

	2000	Global OEM Sales	2001	Global OEM Sales	2002	Global OEM Sales	2003	Global OEM Sales
	Company	($Millions)	**Company**	($Millions)	**Company**		**Company**	
1	Delphi Corp	26,480	Delphi Corp.	24,188	Delphi Corp.	25,527		
2	Visteon Corp	18,569	Robert Bosch GmbH	18,000	Robert Bosch GmbH	19,085		
3	Robert Bosch GmbH	17,800	Visteon Corp.	16,945	Visteon Corp.	16,900		
4	Denso Corp.	16,392	Denso Corp.	16,250	Denso Corp.	15,348		
5	Lear Corp.	14,073	Lear Corp.	13,625	Lear Corp.	14,400		
6	Johnson Controls Inc.	12,738	Johnson Controls In.	13,620	Johnson Controls In.	13,653		
7	TRW Automotive	10,200	Magna Int'l Inc.	10,500	Magna Int'l Inc.	12,188		
8	Magna Int'l Inc.	10,100	TRW Automotive	9,600	Aisin Seiki Co. Ltd.	10,716		
9	Dana Corp.	9,467	Faurecia	8,600	Faurecia	10,000		
10	Valeo SA	6,959	Aisin Seiki Co. Ltd.	8,460	TRW Automotive	9,900		
Top 10 Total		132,778		139,788		147,717		
Top 100 Total		350,600		347,900		353,385		

Source: Automotive News. *calculated estimate. **American Axle and Manufacturing Holdings Inc.

Table 9

World Shipments of the 20 Largest Exporters of Automotive Parts ($Thousands)

	1997		1998		1999		2000		2001	
	Reporters	**331,449,196**	**Reporters**	**350,101,900**	**Reporters**	**375,367,253**	**Reporters**	**402,238,808**	**Reporters**	**390,438,200**
1	United States	59,975,088	United States	60,470,633	United States	63,996,182	United States	67,850,315	United States	61,942,072
2	Germany	44,874,627	Germany	49,342,046	Germany	51,575,290	Germany	51,327,829	Germany	53,606,506
3	Japan	40,424,720	Japan	35,125,183	Japan	39,440,417	Japan	45,456,993	Japan	39,856,822
4	France	25,378,492	France	28,650,102	France	30,171,417	France	31,671,287	France	27,188,704
5	United Kingdom	19,548,661	United Kingdom	21,054,053	Canada	21,711,138	Mexico	24,926,365	Mexico	25,605,831
6	Canada	17,959,274	Canada	18,958,523	Mexico	20,625,467	Canada	23,581,549	Kingdom	22,454,001
7	Italy	16,850,351	Italy	17,882,981	United Kingdom	20,108,462	United Kingdom	21,822,267	Canada	21,197,425
8	Mexico	14,615,747	Mexico	16,418,560	Italy	17,768,930	Italy	17,011,497	Italy	17,131,613
9	Sweden	11,168,774	Sweden	12,685,613	Spain	12,124,453	Spain	11,929,802	Korea	12,750,888
10	Spain	10,457,376	Spain	11,466,820	Sweden	10,684,132	Korea	10,789,724	Spain	11,947,781
11	Belgium and Luxembourg	7,656,795	Belgium and Luxembourg	8,788,877	Belgium	8,951,803	China	9,109,547	China	11,391,791
12	Austria	6,053,373	Austria	6,424,710	Korea	8,572,935	Sweden	9,069,183	Belgium	8,892,765
13	Korea	5,628,196	Korea	6,000,983	Austria	6,827,401	Belgium	8,874,763	Sweden	7,927,025
14	Brazil	4,906,498	Brazil	4,935,199	China	5,529,126	Austria	6,870,866	Austria	7,059,570
15	Netherlands	4,481,381	Hungary	4,482,980	Hungary	4,817,969	Finland	6,202,233	Finland	5,875,151
16	China	4,054,545	Finland	4,461,629	Netherlands	4,666,123	Hungary	5,627,942	Czech Republic	5,700,014
17	Singapore	3,561,365	China	4,461,374	Finland	4,637,316	Brazil	5,605,670	Brazil	5,484,661
18	Finland	3,303,449	Netherlands	4,270,415	Brazil	4,624,244	Netherlands	4,603,240	Poland	4,589,808
19	Hungary	2,856,821	Czech Republic	3,756,368	Czech Republic	4,054,190	Czech Republic	4,553,003	Netherlands	3,962,833
20	Czech Republic	2,483,000	Singapore	2,827,018	Singapore	3,681,018	Singapore	4,222,014	Singapore	3,855,549

Source: United Nations data, using OAA Product Groups. Total FOB Exports, Thousands of Dollars. Ranked Annually, of all Countries Reporting in each Year.

U.S. AUTOMOTIVE PARTS EXPORTS, 1998 - 2004 **Table 10**
In millions of dollars

								Jan-Feb.		
Region/Country	1998	1999	2000	2001	2002	2003	% Chg	YTD '03	YTD '04	%chg
WORLD	**46,807**	**49,901**	**53,720**	**49,794**	**50,087**	**48,501**	**-3.2%**	**7,945**	**8,307**	**4.6%**
ASIA and the PACIFIC										
Select ASEAN										
Indonesia	38	27	34	21	22	23	5.7%	4	4	-11.1%
Malaysia	22	58	35	26	29	27	-6.9%	5	3	-36.9%
Philippines	42	55	53	29	59	88	49.0%	14	13	-8.6%
Singapore	134	150	135	143	141	142	0.1%	24	21	-10.2%
Thailand	119	127	143	85	86	96	12.2%	15	14	-8.6%
Total **ASEAN** (1)	**360**	**419**	**402**	**309**	**343**	**385**	**12.3%**	**62**	**55**	**-11.6%**
Chinese Economic Area										
China	132	251	225	258	344	510	48.4%	52	97	88.0%
Hong Kong	190	114	91	82	75	75	0.3%	11	18	63.4%
Taiwan	212	84	79	75	77	133	73.5%	20	17	-17.4%
Total **Chinese Economic Area**	**535**	**449**	**395**	**415**	**495**	**718**	**45.0%**	**83**	**132**	**59.1%**
Select Other Asia and the Pacific										
Australia	590	564	700	577	615	656	6.6%	93	115	23.3%
India	42	46	41	38	39	42	5.6%	8	7	-8.2%
Japan	**2,139**	**1,893**	**2,217**	**2,008**	**2,285**	**2,051**	**-10.3%**	**367**	**263**	**-28.3%**
Korea	364	597	454	369	332	309	-6.9%	40	69	71.3%
EUROPE										
Select European Union										
Austria	1,086	1,164	1,056	1,117	944	556	-41.1%	87	79	-9.0%
Belgium	508	348	385	348	393	383	-2.5%	68	51	-24.9%
France	268	281	366	407	355	446	25.9%	57	84	46.8%
Germany	1,019	950	974	1,116	941	1,019	8.3%	163	186	13.7%
Italy	128	112	135	158	122	140	15.0%	21	27	25.5%
Netherlands	185	201	322	326	317	297	-6.5%	56	49	-13.1%
Spain	111	88	121	93	102	134	30.9%	18	24	32.2%
Sweden	207	204	143	127	154	208	35.2%	30	46	53.4%
United Kingdom	844	1,191	1,241	1,236	1,072	1,061	-1.0%	173	179	3.4%
Total **European Union** (2)	**4,434**	**4,609**	**4,848**	**5,048**	**4,492**	**4,345**	**-3.3%**	**690**	**746**	**8.1%**
Select Other Europe										
Czech Republic	16	20	14	8	11	9	-16.2%	2	2	-19.1%
Hungary	53	59	33	20	52	67	28.6%	8	17	104.7%
Poland	20	23	13	14	15	17	15.3%	2	3	48.1%
Russia	28	16	15	27	17	25	46.1%	2	2	18.4%
Total **Other Europe**	**117**	**119**	**75**	**69**	**95**	**118**	**24.4%**	**14**	**24**	**66.8%**
WESTERN HEMISPHERE										
Select Andean Community										
Colombia	155	70	81	76	69	68	-0.9%	10	25	143.6%
Ecuador	48	18	29	67	47	50	7.2%	5	8	62.1%
Peru	52	37	24	33	31	37	18.8%	4	6	38.3%
Venezuela**	518	390	537	595	310	168	-45.7%	9	36	291.7%
Total **Andean Community** (3)	**778**	**520**	**675**	**778**	**461**	**326**	**-29.4%**	**29**	**75**	**161.6%**
Select Central America										
Total **Central America** (4)	**191**	**181**	**160**	**142**	**151**	**143**	**-5.2%**	**21**	**26**	**21.0%**
Select MERCOSUR										
Argentina	361	188	225	112	37	93	148.0%	10	12	26.7%
Brazil**	954	454	401	444	454	480	5.7%	82	95	16.5%
Chile	128	94	92	79	102	103	1.5%	19	14	-26.5%
Total **MERCOSUR** (5)	**1,472**	**767**	**736**	**647**	**598**	**685**	**14.5%**	**112**	**123**	**9.3%**
NAFTA										
Canada	25,298	29,643	29,601	26,372	27,968	27,474	-1.8%	4,634	4,775	3.0%
Mexico*	9,502	9,271	12,559	12,010	11,326	10,343	-8.7%	1,668	1,740	4.3%
Total **NAFTA**	**34,799**	**38,915**	**42,161**	**38,381**	**39,293**	**37,817**	**-3.8%**	**6,302**	**6,515**	**3.4%**
ALL OTHERS	**985**	**823**	**858**	**1,012**	**887**	**907**	**2.2%**	**123**	**158**	**28.0%**

Exports, f.a.s.
Source: U.S. Census Bureau
Prepared by: Forrest Nielsen, 202-482-1418. 20 April 2004.

Notes:

**1998 and 1999 data include transshipments to Brazil and Venezuela through St. Vincent and Grenadines.
1) The ASEAN region comrpises Brunei, Burma (Myanmar), Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, and Vietnam.
2) The European Union comprises Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom. As of 1995, Austria, Finland, and Sweden are included in the total.
3) The Andean Community comprises Bolivia, Colombia, Ecuador, Peru, and Venezuela.
4) Central America comprises Costa Rica, El Salvador, Guatemala, Honduras, and Panama.
5) The MERCOSUR countries are Argentina, Brazil, Chile, Paraguay, and Uruguay.

*1995 data revised to reflect $698 million in exports underreported by Census.

U.S. AUTOMOTIVE PARTS IMPORTS, 1998 - 2004 **Table 11**
In millions of dollars

								Jan.-Feb.		
Region/Country	1998	1999	2000	2001	2002	2003	%Chg	YTD '03	YTD '04	% Chg
WORLD	**54,365**	**61,619**	**66,959**	**62,726**	**69,089**	**74,469**	**7.8%**	**11,858**	**12,728**	**7.33%**
ASIA and the PACIFIC										
Select ASEAN										
Indonesia	204	264	269	282	320	298	-7.1%	45	58	30.4%
Malaysia	230	275	286	244	263	255	-2.7%	44	53	22.2%
Philippines	267	324	408	360	349	386	10.6%	58	65	12.7%
Singapore	192	178	156	147	134	100	-25.4%	18	15	-19.4%
Thailand	368	421	415	411	546	529	-3.0%	102	99	-3.1%
Total **ASEAN** (1)	**1,260**	**1,462**	**1,535**	**1,444**	**1,619**	**1,586**	**-2.0%**	**268**	**293**	**9.4%**
Chinese Economic Area										
China	1,037	1,284	1,635	1,758	2,242	2,788	24.4%	415	494	18.9%
Hong Kong	55	61	57	41	51	80	55.1%	10	12	19.3%
Taiwan	931	1,062	1,033	1,085	1,294	1,366	5.6%	223	224	0.7%
Total **Chinese Economic Area**	**2,023**	**2,407**	**2,725**	**2,885**	**3,587**	**4,234**	**18.0%**	**648**	**730**	**12.6%**
Select Other Asia and the Pacific										
Australia	179	248	251	186	198	205	3.3%	26	33	27.6%
India	162	161	190	179	202	234	15.8%	38	48	26.3%
Japan	**11,878**	**12,775**	**14,535**	**13,150**	**13,498**	**13,745**	**1.8%**	**2,241**	**2,325**	**3.8%**
Korea	762	919	1,082	1,122	1,383	1,546	11.8%	250	268	7.2%
EUROPE										
Select European Union										
Austria	238	211	230	201	222	281	26.5%	53	21	-60.7%
Belgium	83	90	97	82	89	100	12.7%	15	14	-3.3%
France	1,094	1,303	1,133	1,165	1,197	1,302	8.8%	189	220	16.5%
Germany	3,114	3,451	3,874	3,746	4,336	5,426	25.1%	807	895	10.9%
Italy	432	447	474	525	652	751	15.2%	113	120	6.6%
Netherlands	59	60	60	66	71	70	-2.0%	9	12	34.1%
Spain	275	346	301	269	349	420	20.3%	60	74	23.3%
Sweden	319	292	241	188	212	229	8.4%	32	41	29.3%
United Kingdom	1,031	1,118	1,190	976	1,106	1,068	-3.4%	178	149	-16.3%
Total **European Union** (2)	**6,742**	**7,451**	**7,716**	**7,375**	**8,425**	**9,858**	**17.0%**	**1,489**	**1,575**	**5.8%**
Select Other Europe										
Czech Republic	29	53	60	86	125	150	20.2%	25	24	-2.5%
Hungary	120	95	97	100	180	315	75.5%	44	27	-37.8%
Poland	19	19	42	43	57	95	68.5%	10	16	67.2%
Russia	4	4	4	2	2	3	29.1%	1	1	-36.4%
Total **Other Europe**	**172**	**172**	**203**	**230**	**364**	**564**	**55.1%**	**79**	**68**	**-13.9%**
WESTERN HEMISPHERE										
Select Andean Community										
Colombia	6	7	8	10	13	16	23.2%	2	2	5.8%
Ecuador	0	1	0	0	1	1	2.7%	0	0	-37.2%
Peru	4	5	4	10	12	8	-31.6%	1	1	-0.3%
Venezuela	184	207	235	159	172	191	11.0%	26	26	0.9%
Total **Andean Community** (3)	**194**	**219**	**249**	**179**	**199**	**216**	**8.7%**	**29**	**30**	**0.9%**
Select Central America										
Total Central America (4)	**28**	**61**	**91**	**69**	**105**	**181**	**72.8%**	**19**	**47**	**141.8%**
Select MERCOSUR										
Argentina	72	131	177	233	223	185	-17.1%	30	27	-9.5%
Brazil	1,240	1,360	1,248	955	1,275	1,474	15.6%	211	217	2.8%
Chile	24	36	42	33	33	46	40.8%	6	6	4.2%
Total **MERCOSUR** (5)	**1,338**	**1,529**	**1,473**	**1,225**	**1,538**	**1,708**	**11.1%**	**248**	**251**	**1.4%**
NAFTA										
Canada	14,712	16,934	17,634	15,787	17,217	18,569	7.9%	2,981	3,273	9.8%
Mexico	14,481	16,768	18,663	18,180	20,069	21,039	4.8%	3,435	3,657	6.5%
Total **NAFTA**	**29,193**	**33,702**	**36,297**	**33,967**	**37,286**	**39,607**	**6.2%**	**6,416**	**6,931**	**8.0%**
ALL OTHERS	**434**	**512**	**613**	**714**	**686**	**783**	**14.2%**	**107**	**130**	**21.0%**

Imports, customs value
Source: U.S. Census Bureau
Prepared by: Forrest Nielsen, 202-482-1418. 20 April 2004

Notes:
1) The ASEAN region comrpises Brunei, Burma (Myanmar), Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, and Vietnam.
2) The European Union comprises Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom. As of 1995, Austria, Finland, and Sweden are included in the total.
3) The Andean Community comprises Bolivia, Colombia, Ecuador, Peru, and Venezuela.
4) Central America comprises Costa Rica, El Salvador, Guatemala, Honduras, and Panama.
5) The MERCOSUR countries are Argentina, Brazil, Chile, Paraguay, and Uruguay.

U.S. AUTOMOTIVE PARTS TRADE BALANCE, 1998 - 2004 **Table 12**
In millions of dollars

Region/Country	1998	1999	2000	2001	2002	2003	%Chg	Jan.-Feb. YTD 2003	Jan.-Feb. YTD 2004	%Chg
WORLD	**-7,558**	**-11,719**	**-13,239**	**-12,932**	**-19,002**	**-25,968**	**36.7%**	**-3,913**	**-4,421**	**13.0%**
ASIA and the PACIFIC										
Select ASEAN										
Indonesia	-166	-237	-236	-261	-298	-274	-8.0%	-41	-55	34.6%
Malaysia	-208	-218	-251	-218	-234	-229	-2.2%	-39	-50	29.5%
Philippines	-225	-268	-355	-331	-290	-298	2.8%	-43	-52	19.7%
Singapore	-58	-28	-21	-4	8	42	447.7%	5	7	20.6%
Thailand	-249	-294	-272	-326	-460	-433	-5.8%	-87	-85	-2.2%
Total **ASEAN** (1)	**-900**	**-1,043**	**-1,133**	**-1,135**	**-1,276**	**-1,201**	**-5.9%**	**-205**	**-238**	**15.7%**
Chinese Economic Area										
China	-905	-1,033	-1,410	-1,501	-1,898	-2,278	20.0%	-363	-396	9.1%
Hong Kong	136	53	35	41	23	-5	-120.7%	1	5	931.5%
Taiwan	-719	-978	-954	-1,010	-1,217	-1,233	1.3%	-203	-208	2.4%
Total **Chinese Economic Area**	**-1,488**	**-1,958**	**-2,330**	**-2,470**	**-3,092**	**-3,516**	**13.7%**	**-566**	**-599**	**5.9%**
Select Other Asia and the Pacific										
Australia	412	316	449	391	416	451	8.2%	67	82	21.7%
India	-120	-115	-149	-142	-163	-192	18.3%	-30	-41	34.9%
Japan	**-9,740**	**-10,883**	**-12,318**	**-11,141**	**-11,213**	**-11,695**	**4.3%**	**-1,874**	**-2,062**	**10.0%**
Korea	-398	-322	-628	-753	-1,051	-1,238	17.7%	-210	-199	-5.2%
EUROPE										
Select European Union										
Austria	848	953	826	916	722	275	-61.9%	34	58	71.3%
Belgium	425	258	288	266	304	283	-7.0%	53	37	-30.8%
France	-826	-1,022	-767	-759	-843	-856	1.6%	-131	-136	3.4%
Germany	-2,095	-2,502	-2,900	-2,630	-3,395	-4,407	29.8%	-644	-709	10.2%
Italy	-304	-336	-338	-367	-530	-611	15.3%	-92	-94	2.2%
Netherlands	126	141	262	260	246	227	-7.8%	47	37	-21.8%
Spain	-164	-258	-180	-176	-246	-286	15.9%	-42	-50	19.3%
Sweden	-112	-88	-98	-61	-58	-21	-63.1%	-2	5	-390.0%
United Kingdom	-187	72	51	260	-34	-6	-81.1%	-4	30	-776.4%
Total **European Union** (2)	**-2,308**	**-2,843**	**-2,868**	**-2,327**	**-3,932**	**-5,513**	**40.2%**	**-799**	**-828**	**3.7%**
Select Other Europe										
Czech Republic	-12	-33	-46	-78	-114	-141	23.9%	-23	-22	-1.0%
Hungary	-68	-36	-64	-80	-128	-249	94.6%	-36	-10	-70.6%
Poland	1	4	-29	-29	-42	-78	87.3%	-8	-13	72.7%
Russia	24	12	11	25	15	22	49.0%	1	2	64.6%
Total **Other Europe**	**-55**	**-53**	**-128**	**-161**	**-269**	**-446**	**66.0%**	**-65**	**-44**	**-31.8%**
WESTERN HEMISPHERE										
Select Andean Community										
Colombia	148	63	73	66	56	52	-6.4%	8	23	180.4%
Ecuador	48	17	28	67	46	49	7.3%	5	7	65.3%
Peru	48	33	19	23	19	29	50.4%	3	4	58.9%
Venezuela	334	183	302	436	138	-23	-116.7%	-16	10	-163.2%
Total **Andean Community** (3)	**584**	**300**	**426**	**598**	**262**	**109**	**-58.3%**	**-1**	**45**	**-5899.4%**
Select Central America										
Total **Central America** (4)	**163**	**120**	**69**	**73**	**46**	**-38**	**-184.1%**	**2**	**-21**	**-1142.6%**
Select MERCOSUR										
Argentina	289	57	49	-120	-186	-92	-50.4%	-21	-15	-26.2%
Brazil	-286	-905	-847	-510	-821	-995	21.1%	-130	-122	-5.9%
Chile	104	58	50	46	69	57	-17.3%	13	8	-40.3%
Total **MERCOSUR** (5)	**134**	**-763**	**-737**	**-578**	**-939**	**-1,023**	**8.9%**	**-135**	**-128**	**-5.1%**
NAFTA										
Canada	10,586	12,709	11,967	10,585	10,751	8,906	-17.2%	1,653	1,501	-9.2%
Mexico	-4,980	-7,496	-6,104	-6,170	-8,744	-10,696	22.3%	-1,767	-1,917	8.5%
Total **NAFTA**	**5,606**	**5,213**	**5,864**	**4,415**	**2,007**	**-1,790**	**-189.2%**	**-114**	**-416**	**265.5%**
ALL OTHERS	**552**	**311**	**244**	**298**	**202**	**124**	**-38.7%**	**16**	**28**	**75.0%**

Source: U.S. Census Bureau
Prepared by: Forrest Nielsen, 202/482-1418 20 April 2004.

Notes:
1) The ASEAN region comrpises Brunei, Burma (Myanmar), Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, and Vietnam.
2) The European Union comprises Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom. As of 1995, Austria, Finland, and Sweden are included in the total.
3) The Andean Community comprises Bolivia, Colombia, Ecuador, Peru, and Venezuela.
4) Central America comprises Costa Rica, El Salvador, Guatemala, Honduras, and Panama.
5) The MERCOSUR countries are Argentina, Brazil, Chile, Paraguay, and Uruguay.

Table 13

Acquisitions of U.S. Automotive Parts Companies (SIC 3714)

	1997	1998	1999	2000	2001	2002
Number of all Deals*	62	63	59	41	41	NA
Number of Disclosed Deals**	20	24	28	11	13	NA
Value of all Deals* ($Millions)	4,444.8	22,495.4	7,363.8	6,656.5	517.8	NA

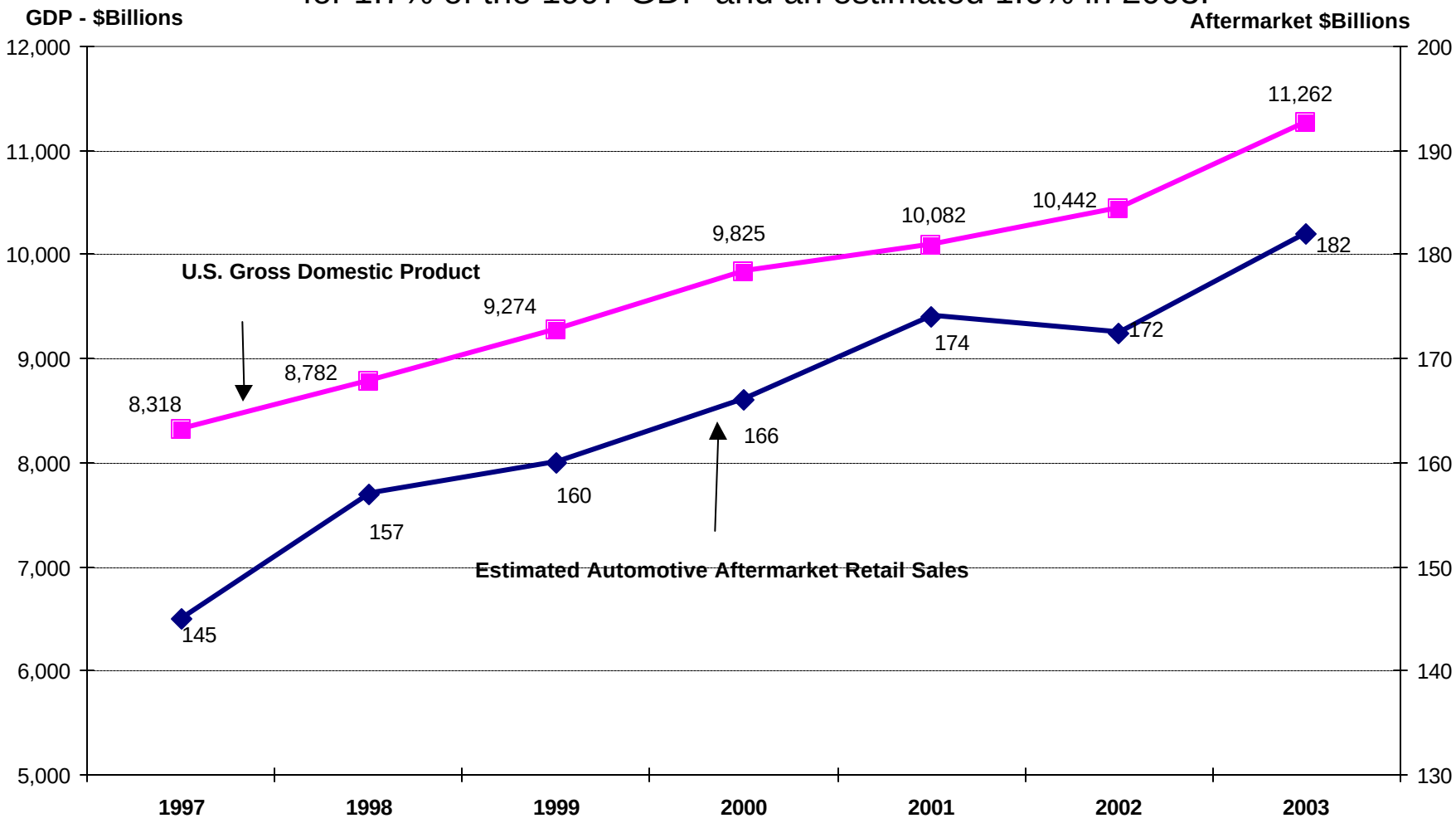
Source: Thomson Financial IBCM in AAIA *Aftermarket Factbook 2002/2003.*

*Includes deals with and without reported values.

**Includes deals with reported values of $1 million or greater and majority partners.

Chart 1

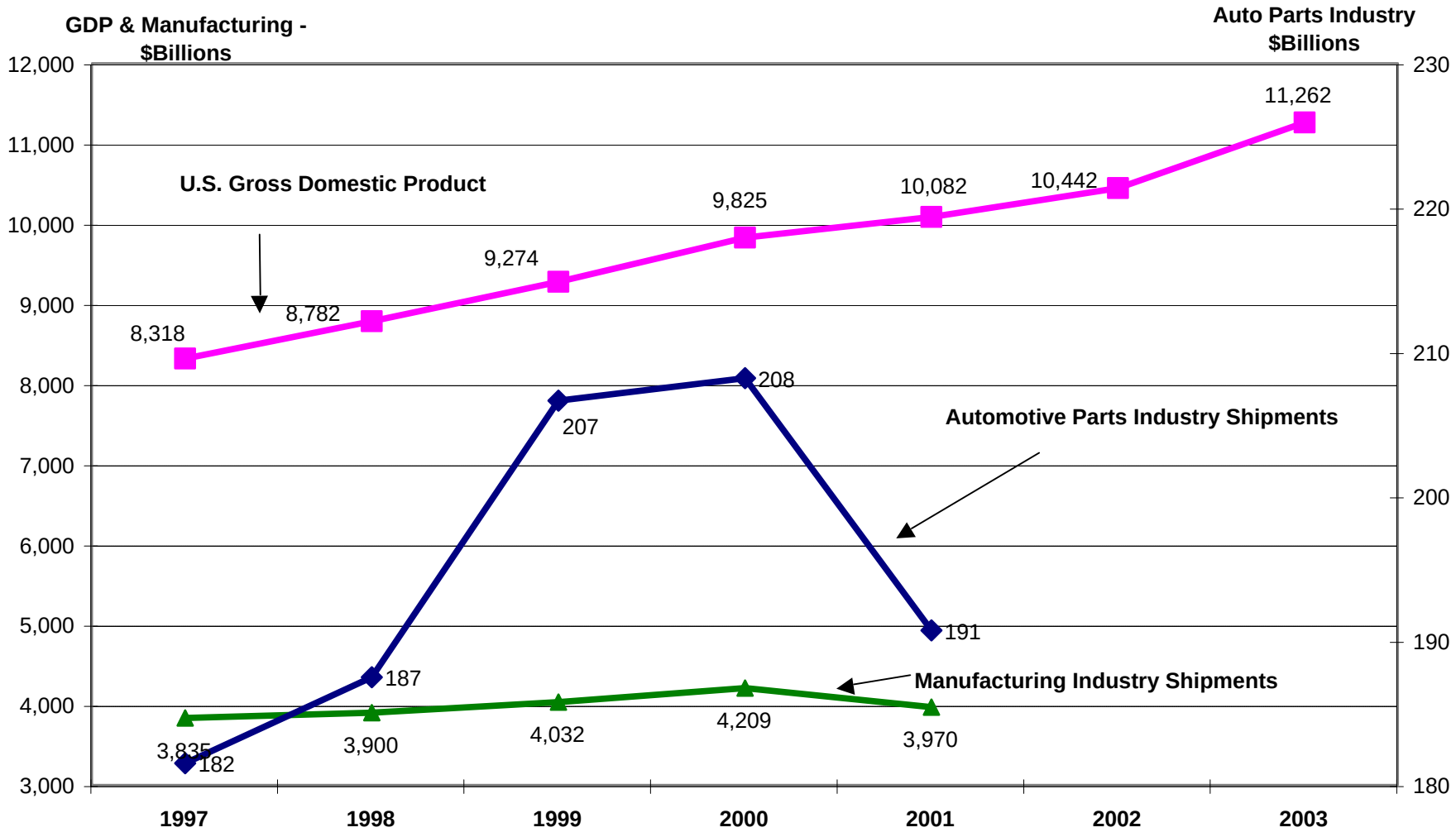
Aftermarket sales track the economy. Sales grew an estimated 26% from 1997 to 2003, compared with 35% for the nation's total GDP. The aftermarket accounted for 1.7% of the 1997 GDP and an estimated 1.6% in 2003.



Source: U.S. Department of Commerce and Motor and Equipment Manufacturers Association aftermarket model.

Chart 2

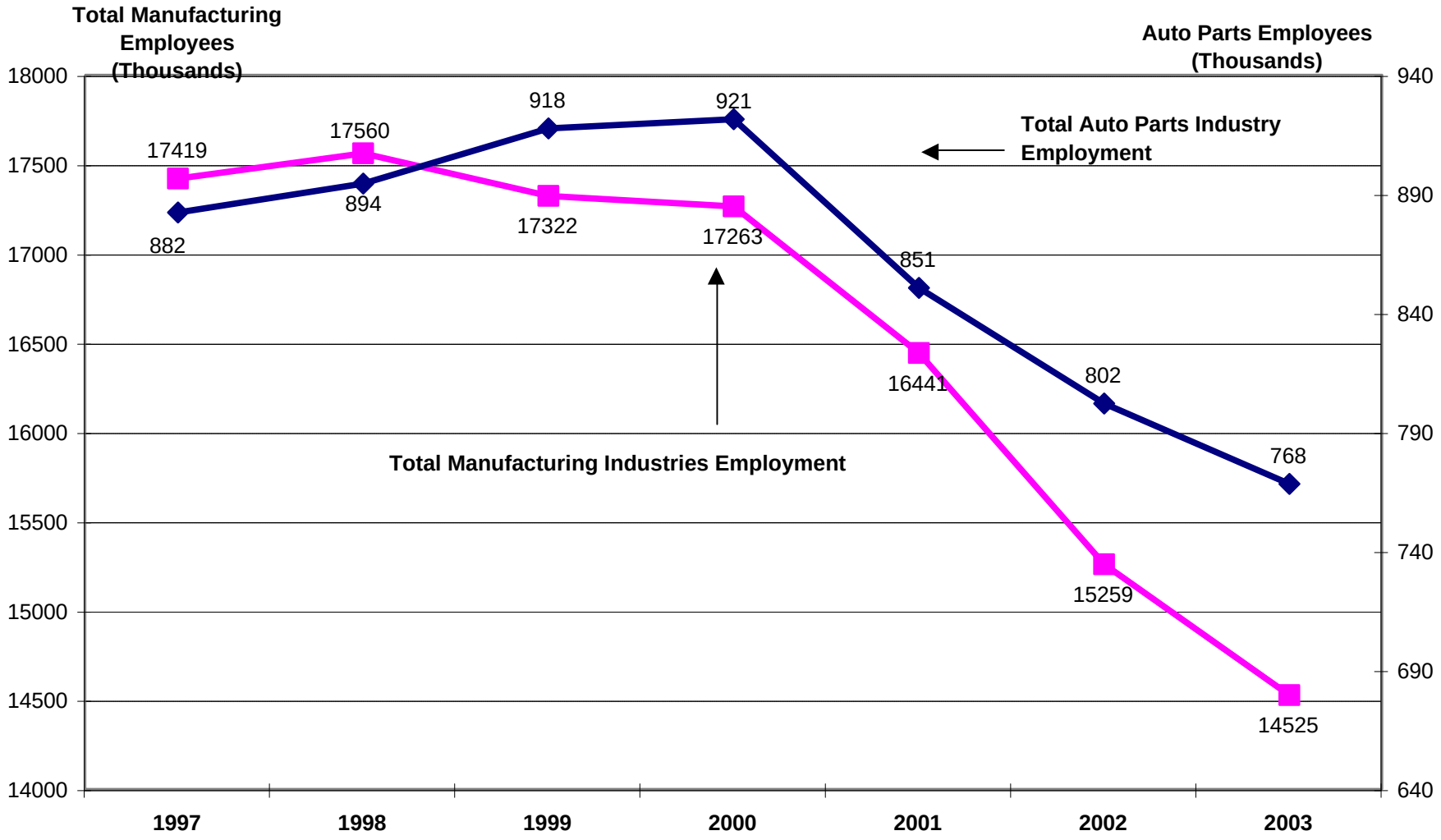
Gross Domestic Product, Manufacturing Industry Shipments, and Automotive Parts Industry Shipments, 1997-2003



Source: U.S. Department of Commerce.

Chart 3

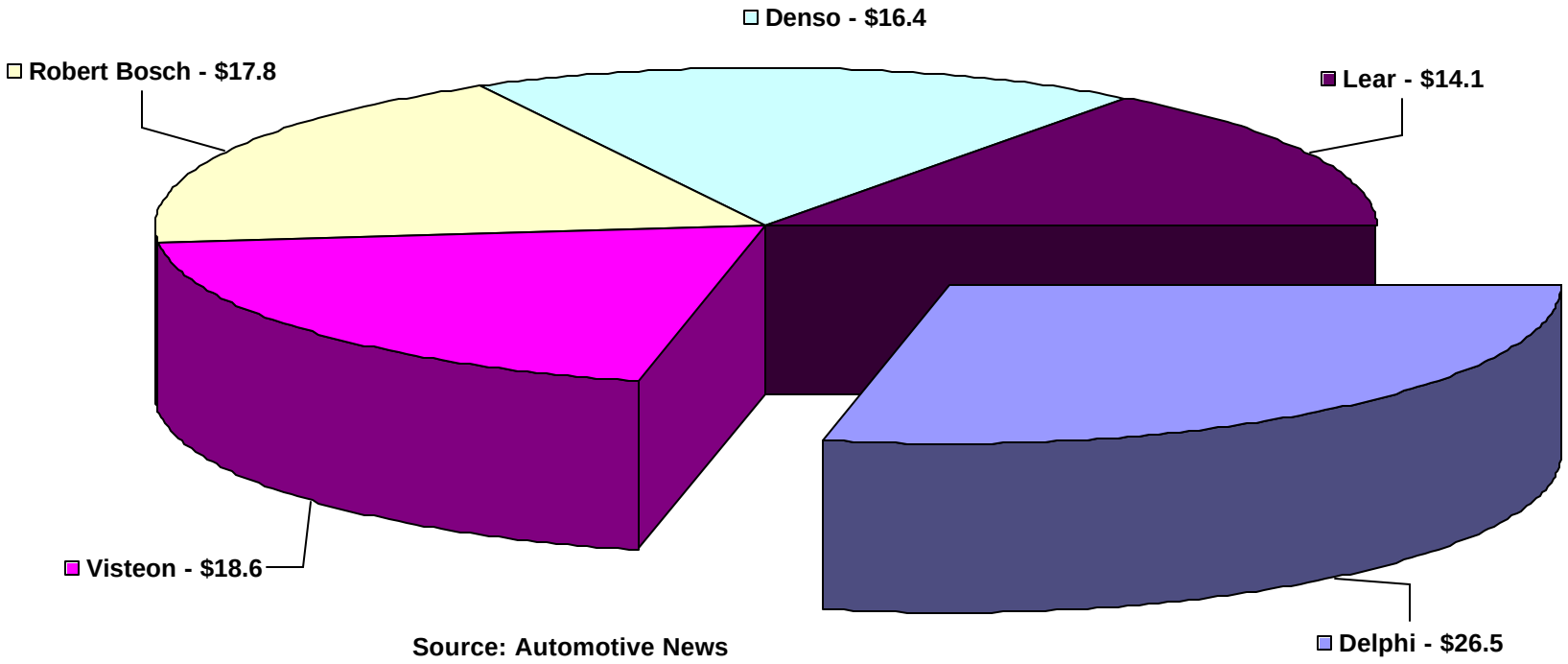
Employment in the U.S. auto parts industry has consistantly been between 5.1 percent and 5.3 percent of the total manufacturing employment.



Source: U.S. Bureau of the Census. and U.S. Bureau of Labor Statistics.

Chart 4

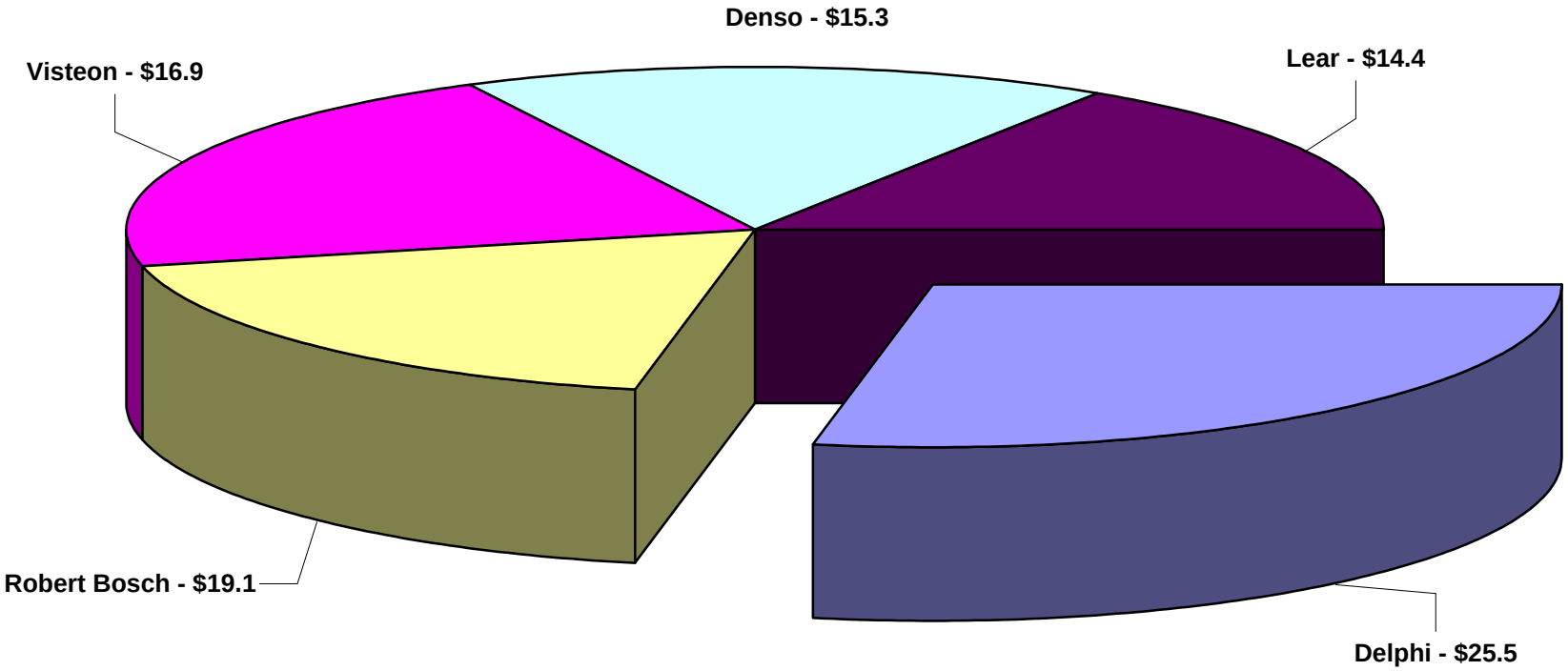
In 2000, the top 5 global suppliers of original equipment parts had sales of $93.3 billion. Delphi's share was 44%.



Source: *Automotive News*

Chart 5

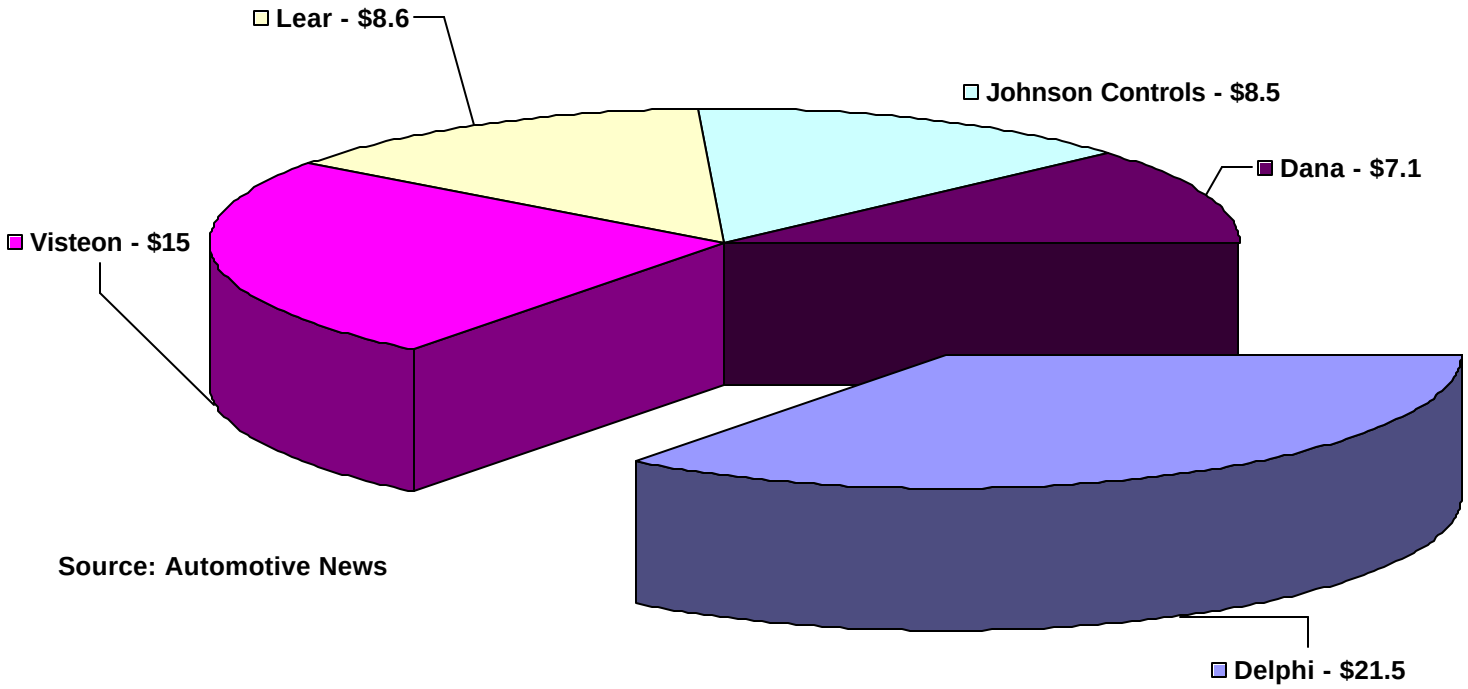
By 2002, their sales had dropped 2.2% to $91.3 billion, but Delphi's share increased to 47%.



Source: *Automotive News* .

Chart 6

In 2000, the Top 5 U.S. suppliers in the North American market had O.E. sales of $60.7 billion. Delphi accounted for 35% of that total.



Source: *Automotive News*

Chart 7

By 2003, the Top 5's sales had shrunk by 12% to $53.5 billion.
Delphi's sales declined by 9%, but its share grew to 36%.

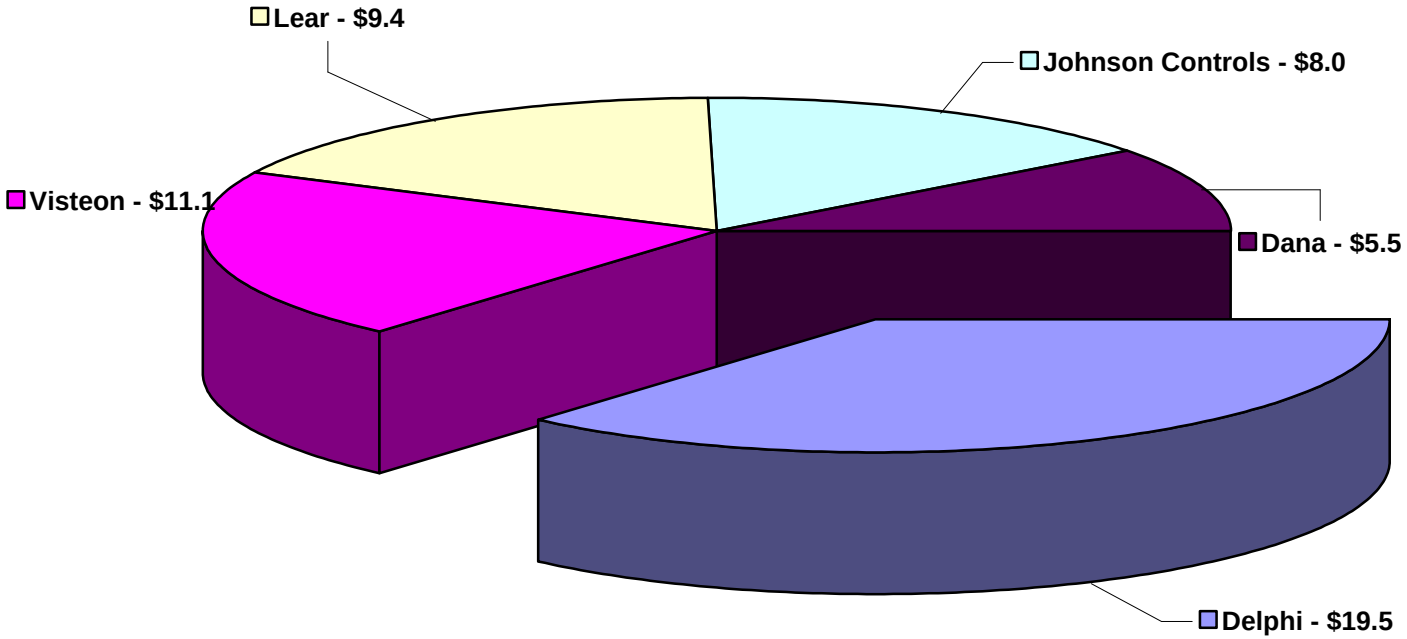
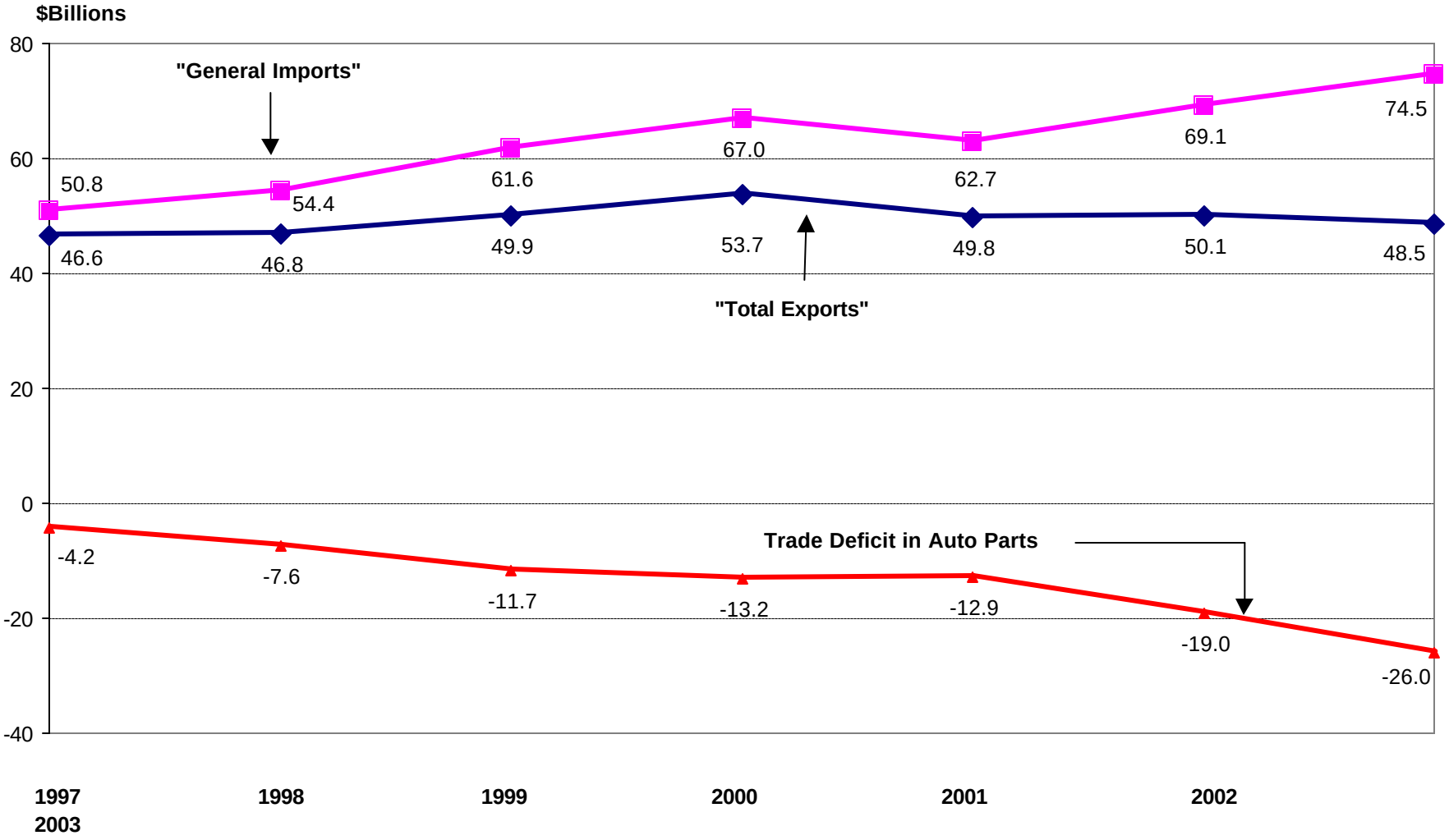


Chart 8

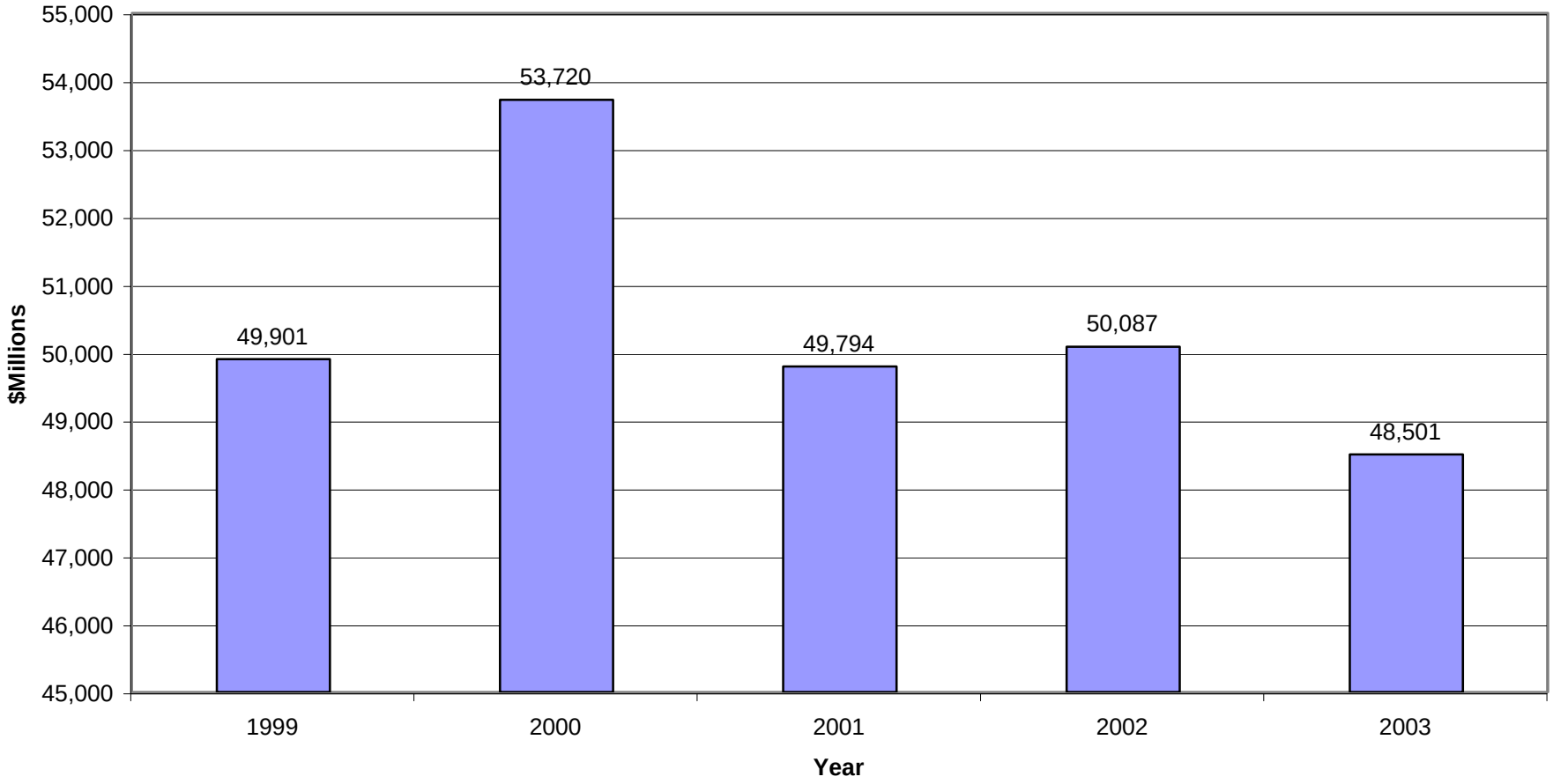
U.S. auto parts exports grew 4% between 1997 and 2003, but imports jumped 47%.
The result was a 524% increase in our deficit with the world.



Source: U.S. Bureau of the Census, U.S. Department of Commerce.

Chart 9
Exports dropped 3.2 percent in 2003...

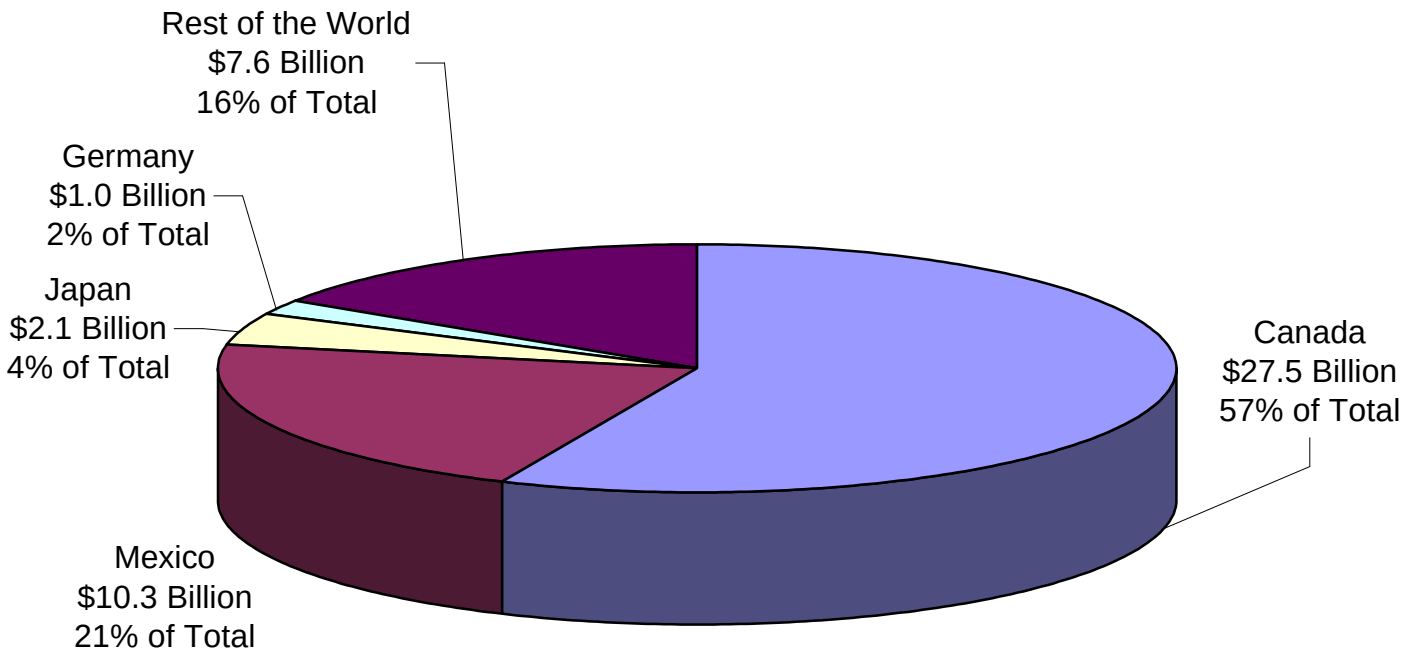
U.S. Automotive Parts Exports, 1999-2003



Source: U.S. Department of Commerce, Bureau of the Census.

Chart 10
Canada accounted for 57 percent of U.S. Automotive Parts Exports in 2003

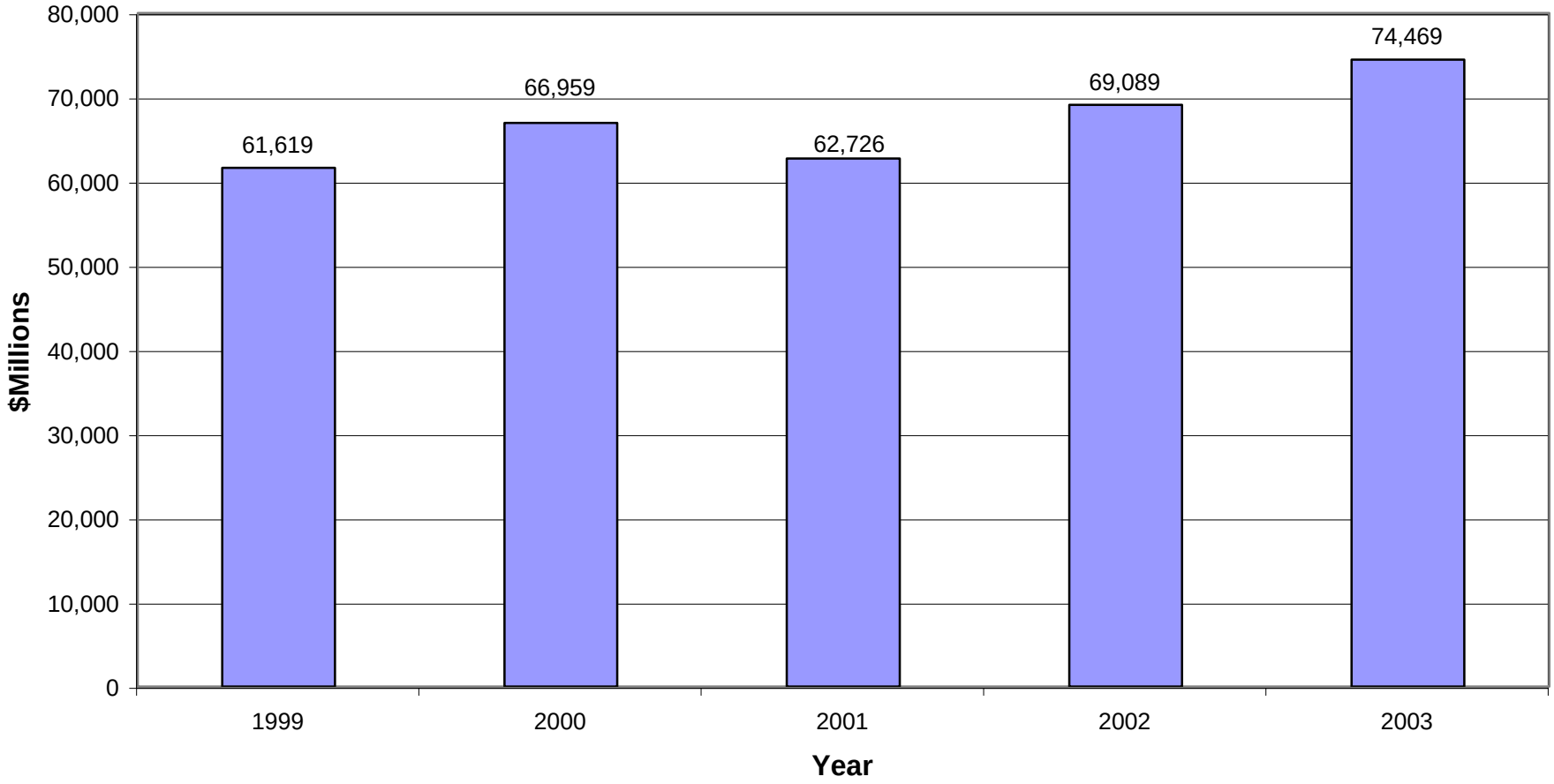
Total: $48.5 Billion



Source: U.S. Bureau of the Census, using OAA HTS Selections.

Chart 11
while Imports increased 7.8 percent in 2003,

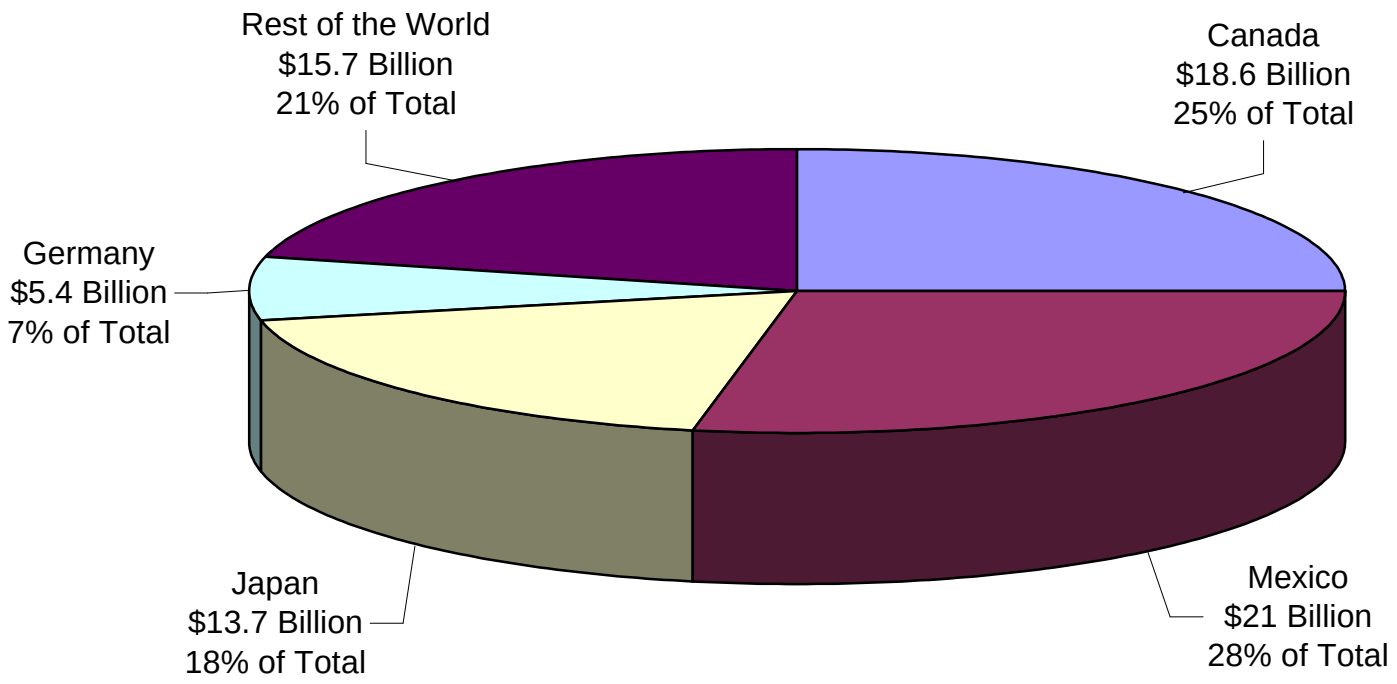
U.S. Automotive Parts Imports, 1999-2003



Source: U.S. Department of Commerce, Bureau of the Census.

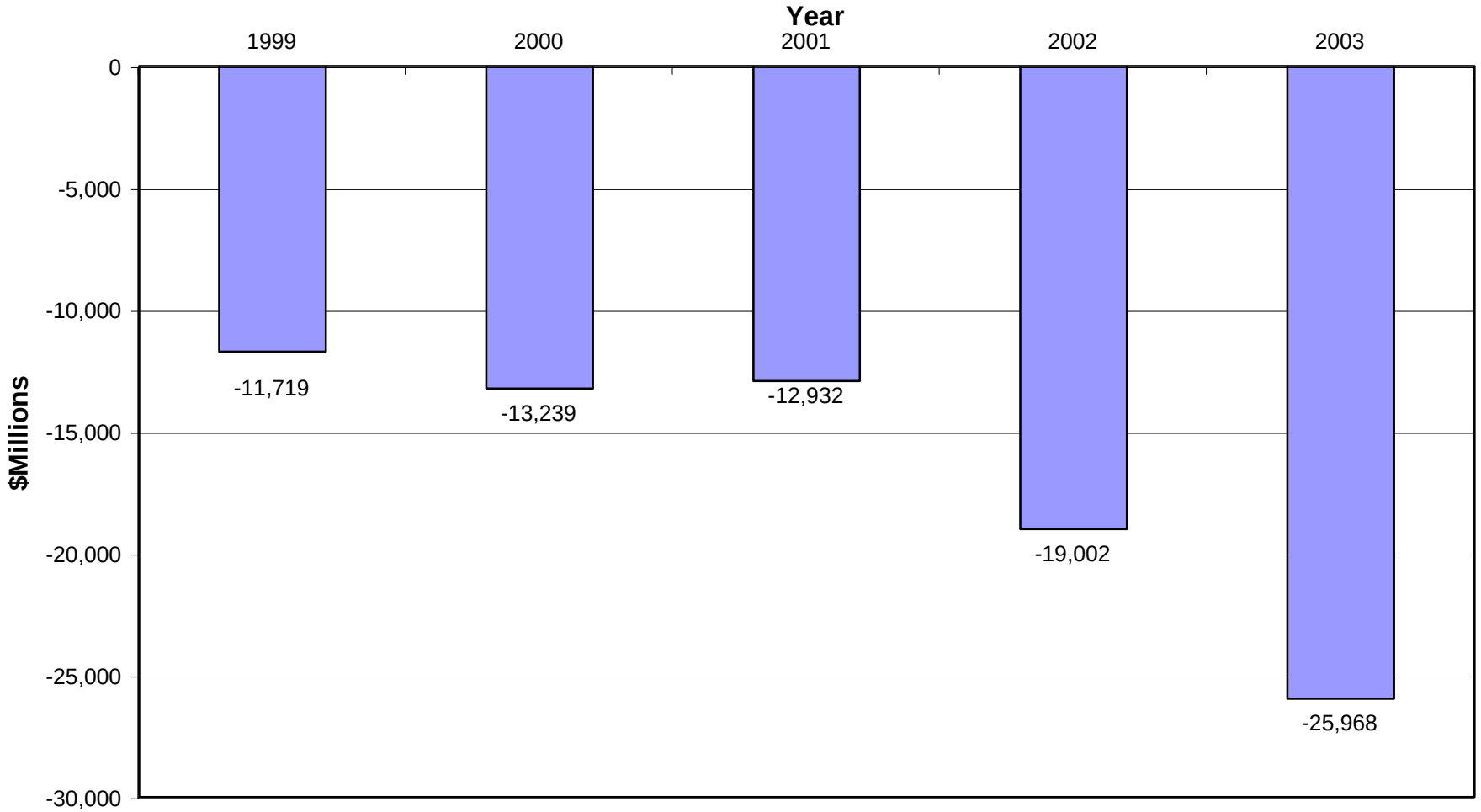
Chart 12
Canada and Mexico Accounted for over 50 percent of U.S. Automotive Parts Imports in 2003

Total: $74.5 Billion



Source: U.S. Bureau of the Census, using OAA HTS Selections.

Chart 13
resulting in a 36.7 increase in U.S. automotive parts trade deficit.
U.S. Automotive Parts Trade Balance, 1999-2003



Source: U.S. Department of Commerce, Bureau of the Census.