

GLOBALIZATION AND THE AUTOMOBILE INDUSTRY

Globalization, the increasing economic linkage between the nations of the world, is a concept that has grown prolifically in theory and practice in the past two decades.²⁸ From the macro, nation-state level to the micro, private entity level, including both large multinational corporations and tiny, privately-owned companies, there is growing acceptance that engaging in production for export markets and facilitating the free flow of goods, capital and technology eventually will lead to higher standards of living. Consequently, the United States has seen the expanding influence of exports and international trade in overall economic calculations. As observed by Thomas Friedman, the foreign affairs columnist for *The New York Times*,

“ . . . the globalization system, . . . is not static, but a dynamic ongoing process: globalization involves the inexorable integration of markets, nation-states and technologies to a degree never witnessed before—that is enabling individuals, corporations and nation-states to reach around the world farther, faster, deeper and cheaper than ever before, and in a way that is also producing a powerful backlash from those brutalized or left behind . . . ”²⁹

Hence, notwithstanding the increasing acceptance of international trade and export promotion as a catalyst for spurring economic growth in the states, certain segments of the economy have suffered serious dislocation as a result of this growing move toward globalization. Quite often, the harshest consequences of this growing trend toward globalism have been felt by low-skill and low-wage manufacturing jobs within the U.S. economy (the textile industry is a classic example), with a majority of these jobs fleeing to cheaper production sites overseas. Federal Reserve Board Chairman Alan Greenspan made this point in testimony before the U.S. Senate Committee on Finance when he noted the following:

“While major advances in standards of living are evident among virtually all nations that have opened their borders to increased competition, the adjustment trauma resulting from technological advances as well as globalization has also distressed those who once thrived in industries that

were once at the cutting edge of technology but that have become increasingly noncompetitive. . . . But, the adjustment process is wrenching to an existing workforce made redundant largely through no fault of their own.”³⁰

The ripple effects of globalization have impacted the automobile industry too, and the prior references to the ever-increasing roster of foreign auto manufacturers establishing assembly plants in the United States, particularly in the South, is just one aspect of this multi-faceted scenario. Similarly, there are a number of American automakers that have set up manufacturing operations overseas. Furthermore, this constantly expanding globalization trend has muddied the definitions of nationality for motor vehicle manufacturers operating in the United States.³¹ For instance, General Motors owns a 49 percent equity stake in Isuzu Motors Ltd., while Ford holds a 33.4 percent equity stake in Mazda Motor Corp. alongside total ownership of Jaguar and Aston Martin. General Motors owns 20 percent of Italy’s Fiat Auto. Then, Chrysler reports to Germany’s DaimlerChrysler, which now holds a 37 percent stake in Mitsubishi Motors Corp. Furthermore, Renault holds a 36.8 percent equity stake in Nissan Motor Co. Ltd. In fact, “[T]he globalization trend continues as multinational manufacturers agree to mergers, acquisitions, and joint ventures to improve their products for their customers and profits for their shareholders. The nationality of a name is no longer the defining attribute of a company. Nearly 20 percent of American auto nameplates are made overseas. More than 13 percent of American auto exports are Japanese nameplates, while Japanese automakers now supply 63 percent of their total U.S. sales from their North American plants, compared with less than 12 percent in 1986.”³²

In sum, the “internationalization” of both American and foreign car manufacturers is a clear example of the globalization effort sweeping the world. Yet, it should be mentioned that since its inception in the latter decades of the 19th century, the automotive industry has been an intensely international one.³³ A few years after the development of vehicles powered by internal combustion in Germany, in 1888 to be exact, the Daimler Motor Company licensed William Steinway of New York City to sell the innovation in the United States. As a result, in 1905, Steinway produced the first American Mercedes under license at a plant in Long Island City, New York. Then, in 1905 the first Rolls Royce was imported into the United States and some 15 years later, in 1921, the first Rolls Royce was assembled in the country. In subsequent years, a number of European manufacturers began their American operations led by Jaguar (1949); Volkswagen (1949); Porsche (1950); Saab (1956); BMW (1960); and Audi (1969). The first Japanese manufacturer to either sell their vehicles or establish a presence in the United States was Toyota (1957), followed by Nissan (1960); Subaru (1968); Honda and Mazda (both 1970).

As in so many other spheres of the economy (shipping; banking; financial services; pharmaceuticals; telecommunications; energy), consolidation, mergers and acquisitions on a global scale have extended to the vehicle manufacturing arena. In fact, the world’s six largest automobile manufacturers (General Motors, DaimlerChrysler, Ford, Toyota, Volkswagen and Renault), referred to as original equipment manufacturers (OEMs) in the industry, together with all their affiliates and groups, effectively control more than 80 percent of global vehicle production. When one adds Honda, PSA Peugeot Citroen and BMW to this list, then the world’s nine largest OEMs control over 95 percent of global vehicle production.³⁴

As noted earlier, the motor vehicle industry in the United States is the largest manufacturing industry in the nation; not a single other industry is so

connected with the U.S. manufacturing sector or contributes more handily to retail commerce and employment rolls. Assessing the international implications of the automotive industry involves the following two aspects:

- » International trade (export and import) in automobiles and automotive parts
- » Foreign automobile manufacturers establishing assembly plants in the United States

INTERNATIONAL TRADE IN AUTOMOBILES AND AUTOMOTIVE PARTS

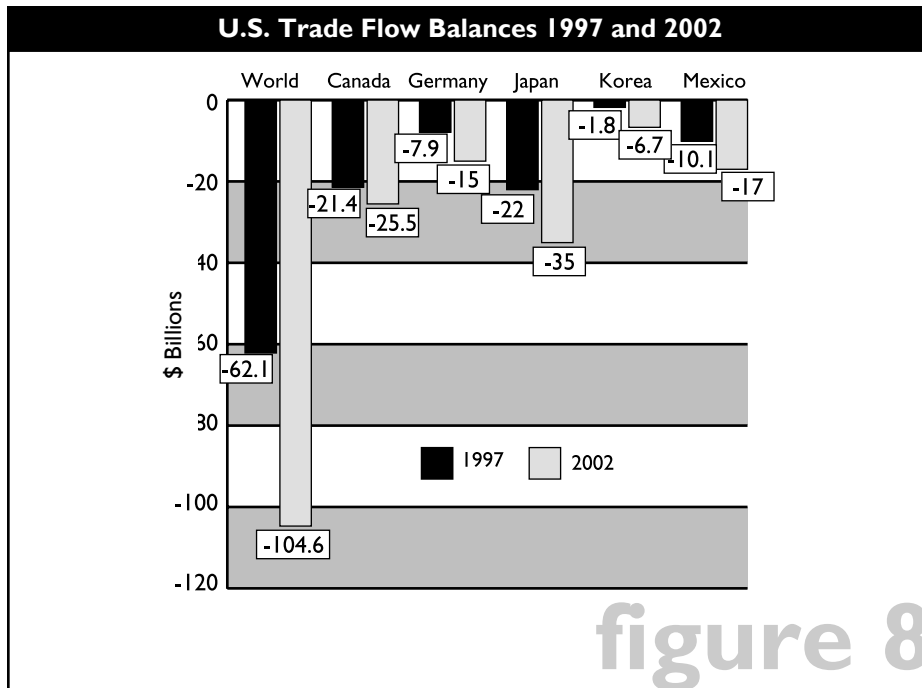
At the outset, it should be stressed that the sheer size of the American market and the tremendous profits to be earned here in the United States has diminished the importance of exporting automobiles to the rest of the world. In addition, the engine capacities and dimensions of American vehicles are designed specifically to accommodate a domestic market that features wide open spaces and low energy costs. These twin features, particularly given the recent surge in the international price of gasoline, remain unsuitable for most overseas markets, a phenomenon that is reflected in the relatively low level of U.S. automobile exports. In contrast, the size of the U.S. market, the relative affluence of American society, consumers that are highly receptive to the products of other nations and the demand for high-quality automobiles, makes the American market very lucrative for the full range of foreign manufacturers. Consequently, a review of U.S. international trade trends reveals a huge component of imported vehicles, which is reflected in a negative trade balance in the automobiles sector.

Tables 6 and 7 demonstrate the trade flows of all motor vehicles between the United States and its major trading partners in the 1997 to 2002 period, initially in terms of value and then in terms of units.

U.S. Trade Flows by All Shippers of Motor Vehicles Billions of Dollars							
Country	1997	1998	1999	2000	2001	2002	% Change 1997-2002
World							
- Exports	\$25,593	\$24,462	\$23,824	\$24,669	\$24,255	\$27,809	8.7%
- Imports	\$87,656	\$94,650	\$115,609	\$126,790	\$124,657	\$132,407	51.1%
- Balance	(\$62,063)	(\$70,188)	(\$91,785)	(\$102,122)	(\$100,402)	(\$104,598)	68.5%
Canada							
- Exports	\$14,406	\$13,867	\$14,951	\$14,863	\$13,260	\$15,895	10.3%
- Imports	\$35,825	\$37,518	\$46,367	\$45,371	\$40,879	\$41,392	15.5%
- Balance	(\$21,419)	(\$23,651)	(\$31,416)	(\$30,508)	(\$27,619)	(\$25,496)	19.0%
Germany							
- Exports	\$1,184	\$1,345	\$1,194	\$1,213	\$1,797	\$2,811	137.4%
- Imports	\$9,040	\$11,138	\$13,505	\$14,676	\$15,048	\$17,813	97.0%
- Balance	(\$7,856)	(\$9,793)	(\$12,312)	(\$13,463)	(\$13,250)	(\$15,002)	91.0%
Japan							
- Exports	\$1,622	\$1,165	\$824	\$804	\$609	\$468	-71.1%
- Imports	\$23,631	\$25,294	\$29,848	\$32,636	\$31,513	\$35,483	50.2%
- Balance	(\$22,009)	(\$24,129)	(\$29,023)	(\$31,833)	(\$30,904)	(\$35,015)	59.1%
Korea							
- Exports	\$92	\$7	\$16	\$30	\$35	\$93	1.1%
- Imports	\$1,904	\$1,696	\$2,900	\$4,859	\$6,344	\$6,802	257.2%
- Balance	(\$1,812)	(\$1,690)	(\$2,884)	(\$4,829)	(\$6,309)	(\$6,709)	270.3%
Mexico							
- Exports	\$1,978	\$2,363	\$2,547	\$3,798	\$3,922	\$3,931	98.7%
- Imports	\$12,110	\$13,190	\$15,788	\$21,002	\$21,302	\$20,903	72.6%
- Balance	(\$10,132)	(\$10,827)	(\$13,241)	(\$17,204)	(\$17,379)	(\$16,972)	67.5%

Source: U.S. Department of Commerce, Office of Automotive Affairs, February 2003

While the overwhelming dominance of the import sector is apparent in U.S. automotive trade flows in table 6, a graphical representation of this feature is apparent in figure 8. Figure 8 illustrates the U.S. trade balance in 1997 and 2002, for the world and the top five U.S. markets in motor vehicles.



Source: U.S. Department of Commerce, Office of Automotive Affairs

A review of the information in table 6 and figure 8 indicates that between 1997 and 2002, the U.S. trade balance with the rest of the world in all motor vehicles worsened by almost 69 percent. Specifically, while exports grew by under 9 percent, imports expanded by more than 51 percent. In terms of the specific markets, imports from Korea expanded the most significantly, by more than 257 percent, indicating the growing importance of such automakers as Kia and Hyundai in the U.S. domestic market. As noted in table 6, exports to Japan suffered a decline between 1997 and 2002, by just over 71 percent, an indication of the difficulties associated with penetrating the domestic Japanese automobile market.

It should also be stressed that the overall U.S. trade balance continues to be in the negative and that the deficit in the motor vehicles sector is symptomatic of this larger trade issue. In fact, in 2002, the total U.S. deficit on goods and services trade (excluding earnings and payments on foreign investment) increased by approximately \$65 billion from \$358 billion in 2001 (3.6 percent of GDP), to \$423 billion in 2002 (4.1 percent of GDP). The U.S. trade deficit in goods trade alone increased by \$43 billion, while the service trade surplus declined by \$22 billion between 2001 and 2002.³⁵

Similarly, a review of U.S. trade flows of motor vehicles in terms of units displays the trends depicted with respect to their value. These trends, for the world and the same five countries of the world, are listed in table 7 and indicate that once again, imports seriously outnumber exports for the 1997 to 2002 period.

U.S. Trade Flows of Motor Vehicles in Total Units 1997 to 2002							
Country	1997	1998	1999	2000	2001	2002	% Change 1997 to 2002
World							
- Exports	1,735,579	1,610,943	1,526,924	1,616,164	1,594,707	1,739,595	0.2%
- Imports	5,124,004	5,347,765	6,500,387	7,145,146	6,888,948	7,291,955	42.3%
Canada							
- Exports	876,667	851,217	916,847	932,927	895,308	1,001,936	14.3%
- Imports	2,186,774	2,209,675	2,688,658	2,638,879	2,307,215	2,351,610	7.5%
Germany							
- Exports	74,201	70,008	59,880	61,831	79,445	97,296	31.1%
- Imports	300,694	376,705	460,101	493,058	498,703	575,710	91.5%
Japan							
- Exports	96,272	63,300	53,720	44,556	31,631	24,620	-74.4%
- Imports	1,428,496	1,498,671	1,744,763	1,865,022	1,813,743	2,067,190	44.7%
Korea							
- Exports	5,357	928	1,379	1,757	2,107	5,035	-6.0%
- Imports	222,565	210,312	375,512	569,339	633,999	627,910	182.1%
Mexico							
- Exports	140,652	163,669	175,526	279,291	283,000	301,962	114.7%
- Imports	788,796	837,119	938,436	1,219,132	1,206,576	1,162,127	47.3%

Source: U.S. Department of Commerce, Office of Automotive Affairs, February 2003

In terms of units, U.S. trade in motor vehicles experienced a negligible increase in exports (less than 1 percent) and a 42 percent increase in imports between 1997 and 2002. While exports to Canada and Mexico increased by more than 14 percent and 114 percent, respectively, mainly due to the North American Free Trade Agreement (NAFTA), with the exception of Germany (31 percent increase), exports to both Japan and Korea declined. On the import front, there were increases in every category with imports from Korea (182 percent) displaying the largest percentage increase.

While tables 6 and 7 and figure 8 presented data for all motor vehicles, information on total automotive trade (exporting and importing)—vehicles such as passenger vehicles, light trucks and automotive parts—remains important too. In particular, automotive parts represent a significant portion of trade flows both to and out of the United States. Table 8 indicates data for 1996 and 2002 for these categories.

U.S. Automotive Trade 1996 and 2002 Millions of Dollars							
Country	1996			2002			% Change 1996 to 2002
	Vehicle Balance	Parts Balance	Total Balance	Vehicle Balance	Parts Balance	Total Balance	
World	(55,743)	(7,340)	(63,083)	(104,598)	(19,002)	(123,600)	95.9%
» Canada	(21,481)	9,589	(11,892)	(25,496)	10,751	(14,745)	24.0%
» Mexico	(10,052)	(4,567)	(14,619)	(16,972)	(8,744)	(25,716)	75.9%
» Brazil	169	(452)	(283)	(616)	(821)	(1,437)	407.8%
» Germany	(6,149)	(1,646)	(7,795)	(15,002)	(3,395)	(18,397)	136.0%
» United Kingdom	(1,231)	56	(1,175)	(3,360)	(34)	(3,394)	188.9%
- Japan	(18,232)	(11,368)	(29,600)	(35,015)	(11,213)	(46,228)	56.2%
- Korea	(1,682)	336	(1,346)	(6,709)	(1,051)	(7,761)	476.6%
- China	26	(581)	(555)	30	(1,898)	(1,868)	236.6%

Source: U.S. Department of Commerce, Office of Automotive Studies

As demonstrated in table 8, the significant increase in imports in both passenger vehicles, light trucks and automotive parts is apparent between 1996 and 2002. While there were a few instances where the United States enjoyed a positive trade relationship in these categories in 1996, this relationship quickly changed by 2002, when the U.S. trade deficit soared to unprecedented heights. Consequently, when reviewing the import-export situation for the entire world, it is evident that between 1996 and 2002, the U.S. trade balance in passenger vehicles, light trucks and automotive parts diminished from \$63.1 billion to \$123.6 billion, or by almost 96 percent.

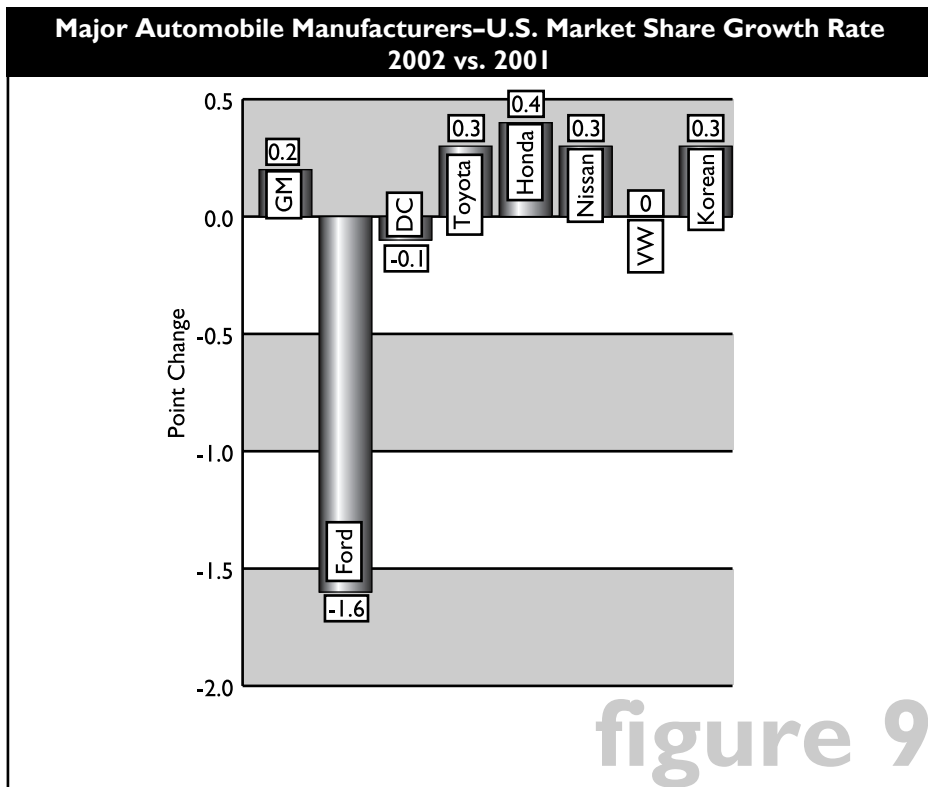
Finally, another series of statistics from the Office of Automotive Affairs reinforces the growing importance of foreign automakers in overall United States sales. Table 9 provides sales figures for new cars and light trucks in the United States and affords a comparison between American, primarily the Big Three (General Motors, Ford and Chrysler), and foreign automakers. In addition, the data indicate the breakdown as a percentage of total sales by each country of origin.

New Car and Light Truck Sales in Millions of Vehicles and Share of Total 1997 to 2002							
Country		1997	1998	1999	2000	2001	2002
American	# vehicles	10,761	10,863	11,528	11,341	10,806	10,345
	share	71.3%	70.0%	68.3%	65.4%	63.1%	61.3%
German	# vehicles	430	586	747	853	882	915
	share	2.69%	3.8%	4.4%	4.9%	5.2%	5.4%
Japanese	# vehicles	3,564	3,710	4,045	4,431	4,577	4,706
	share	23.6%	23.9%	24.0%	25.6%	26.7%	27.9%
Korean	# vehicles	169	175	330	473	618	650
	share	1.1%	1.1%	2.0%	2.7%	3.6%	3.9%
Other	# vehicles	163	176	221	234	235	251
	share	1.1%	1.1%	1.3%	1.4%	1.4%	1.5%
Total	# vehicles	15,087	15,511	16,870	17,333	17,118	16,867
	share	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: U.S. Department of Commerce, Office of Automotive Affairs

Perhaps the most instructive statistic to be extrapolated from table 9 involves the continued decline of the sale of American vehicles as a proportion of total sales. From a high of 71.3 percent in 1997, this percentage declined every year to finally reach 61.3 percent in 2002. In contrast, the sale of foreign vehicles increased in each of these years at the expense of American vehicles from 28.7 percent in 1997, to 38.7 percent in 2002. To be more specific, between 1997 and 2002, the sale of Japanese vehicles increased from 23.6 percent to 27.9 percent; German vehicles increased from 2.9 percent to 5.4 percent; Korean vehicles increased 1.1 percent to 3.9 percent; and vehicles from other countries increased, albeit marginally, from 1.1 percent to 1.5 percent.

Finally, in exploring the relative importance of the different automakers in the United States, it is relevant to review the U.S. market share of some of the specific automakers between 2001 and 2002. (It should be noted that figure 9 only represents the eight major players in the U.S. market and that the total does not equal 100 percent.)



Source: Kevin W. Williams, Executive Director, GM Worldwide Purchasing, Presentation for the *Global Automotive Conference 2003*, Western Kentucky University's Office of Global Business, Bowling Green, Kentucky, April 8, 2003

Figure 9 documents the breakdown for eight major automakers in the United States and their growth levels for the two most recent years, 2001 to 2002. As noted earlier, the Big Three (General Motors, Ford and DaimlerChrysler) still maintain a prominent position in overall sales. In 2002, General Motors enjoyed its first back-to-back market share gain since 1972. The other two U.S. automakers experienced declines in their market share while all the remaining foreign automakers—with the exception of Volkswagen, whose growth remained unchanged from the prior year—experienced market share increases in 2002. In 2002, the percentage market share breakdown for these eight major automakers remained as follows: General Motors 28.3 percent; Ford 21.1 percent; DaimlerChrysler 14.6 percent; Toyota 10.3 percent; Honda 7.3 percent; Nissan 4.3 percent; Volkswagen 2.5 percent; and the two Korean automakers, Hyundai and Kia, both holding at 3.8 percent.

FOREIGN AUTOMOBILE MANUFACTURERS ESTABLISHING ASSEMBLY PLANTS IN THE UNITED STATES

As noted earlier, the burgeoning success associated with foreign car sales in the United States, and the potential for increasing profit margins, prompted a host of foreign automakers to begin setting up manufacturing and assembly operations across the country. In fact, ever since 1978, when Volkswagen purchased a Chrysler plant in Westmoreland, Pennsylvania, for the purpose of assembling passenger cars, there has been a steady stream of European and East Asian automobile manufacturers establishing assembly and manufacturing operations in subsequent decades. As documented in the previously referenced University of Michigan study, until about 1982, the U.S. international auto sector (IAS) sales consisted almost entirely of imported

vehicles. Yet, this aspect of the industry began changing soon after as the quantity of domestically-produced foreign vehicles began a steady ascent. Accordingly, in 1982, a review of international auto sector sales reveals that of the 2.7 million vehicles sold, only about 90,000 vehicles were produced domestically with the remainder being imported. By 1996, this production distribution had changed drastically to 2.37 million manufactured domestically and 1.72 million imported into the United States.³⁶

Hence, while the auto industry remains the largest manufacturing sector industry in the country, this achievement has been attained as a result of the contributions of the aforementioned foreign automakers' U.S. operations. In fact, more than 30 international nameplate vehicles are now manufactured in the United States, and overseas automakers are making sizable investments in their U.S. manufacturing operations, expanding facilities and building new and innovative vehicles on American soil.³⁷ According to the University of Michigan study, following the 1978 Volkswagen plant in Pennsylvania, Honda established an automobile assembly plant in Marysville, Ohio, in November 1982. (Honda already had been manufacturing large motorcycles at this site since 1979.) Nissan started a plant a few years later in 1983 in Smyrna, Tennessee, followed by Toyota's joint-venture assembly plant with GM in December 1984 in Fremont, California.

The following list indicates a sampling of the vehicles and models manufactured within the United States by foreign automakers:

Vehicle, Model and Location of Foreign Assembly Plants	
Vehicle and Model	Location
Acura CL, Acura TL	Marysville, Ohio
BMW X5, BMW Z3	Spartanburg, South Carolina
Honda Accord	Marysville, Ohio
Honda Civic	East Liberty, Ohio
Honda Odyssey	Lincoln, Alabama
Hyundai Sonata, Hyundai Santa Fe	Montgomery, Alabama (Forthcoming)
Isuzu Ascender	Moraine, Ohio
Isuzu Axiom , Isuzu Rodeo, Isuzu Rodeo Sport	Lafayette, Indiana
Mazda 626	Flat Rock, Michigan
Mazda Truck	Edison, New Jersey
Mazda Tribute	Kansas City, Missouri
Mercedes-Benz M-Class	Vance, Alabama
Mitsubishi Eclipse, Mitsubishi Eclipse Spyder, Mitsubishi Galant	Normal, Illinois
Nissan Altima, Nissan Frontier, Nissan Xterra	Smyrna, Tennessee
Nissan Quest	Avon Lake, Ohio
Nissan Titan, Nissan Pathfinder Armada, Nissan Quest	Canton, Mississippi
Subaru Baja, Subaru Legacy, Subaru Outback	Lafayette, Indiana
Toyota Avalon , Toyota Camry, Toyota Sienna	Georgetown, Kentucky
Toyota Corolla	Fremont, California
Toyota Sequoia, Toyota Tundra	Princeton, Indiana
Toyota Tacoma	Fremont, California
Toyota Tundra	San Antonio, Texas (Forthcoming)

Source: American International Automobile Dealers Association and Nissan and Hyundai Web sites

According to the American International Automobile Dealers Association (AIADA), international automakers are gaining ground with U.S. buyers, capturing more than 50 percent of the passenger car market for the first time in 2001. Toyota led the way with 10.2 percent of the overall market (up from 9.3 percent in 2000), landing the brand in third place ahead of Dodge and after Ford and Chevrolet. In addition, Honda took a 7 percent share, a 30 percent increase from 2000, with its Acura division up almost 20 percent. Given that until a few years ago, Detroit's Big Three dominated the market, easily securing more than a 50 percent share, the growing performance of these international players remains significant.

In terms of economic impact, a topic that will be dealt with in much greater detail in the state-specific sections that follows, the results have been quite impressive. Just among the Japanese automakers, since 1987, \$17.5 billion has been invested in their U.S. auto plants and auto parts manufacturing facilities; furthermore, these Japanese automakers (Toyota, Mazda, Subaru, Isuzu, Honda, Mitsubishi and Nissan) employ nearly 50,000 Americans. Also, every international nameplate manufacturer has offices and investments across the United States, and the 10,000 dealerships that sell and service their brands provide in excess of 432,000 American jobs. In fact, as detailed by the AIADA, in 2002, the commercial activities of these international nameplate automobile dealers provide the following breakdown of direct jobs in the SLC states.

Locations and Employment Levels at International Nameplate Dealers in SLC States				
SLC State	Locations		Employment Levels	
	Number	% of SLC Total	Number	% of SLC Total
Alabama	124	4.3%	5,456	3.3%
Arkansas	69	2.4%	2,139	1.3%
Florida	467	16.1%	35,025	21.2%
Georgia	239	8.2%	13,384	8.1%
Kentucky	99	3.4%	4,257	2.6%
Louisiana	119	4.1%	6,188	3.7%
Maryland	188	6.5%	12,408	7.5%
Mississippi	86	3.0%	3,096	1.9%
Missouri	119	4.1%	5,474	3.3%
North Carolina	263	9.0%	11,835	7.2%
Oklahoma	77	2.6%	3,619	2.2%
South Carolina	126	4.3%	5,670	3.4%
Tennessee	171	5.9%	9,405	5.7%
Texas	458	15.8%	30,686	18.6%
Virginia	249	8.6%	14,442	8.7%
West Virginia	54	1.9%	1,998	1.2%
SLC Total	2,908		165,082	
U.S. Total	7,866		432,965	

Source: American International Automobile Dealers Association

As documented, the international nameplate dealers operate more than 2,900 dealer locations (36 percent of the total locations across the country) and employ more than 165,000 employees (38 percent of total employees) in the SLC states. In terms of the specific SLC states, Florida and Texas are the states with the highest percentage of both dealer locations and number of employees.