RACING AHEAD OR RUNNING OUT OF GAS?

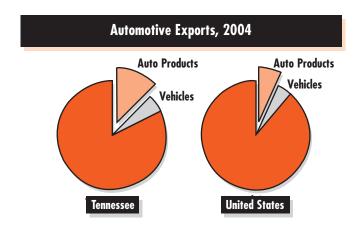


by Steven G. Livingston

he automobile has been a boon to international trade. Automotive-related products account for a disproportionate amount of global exports and imports. The cost of a car is one obvious reason, but so, too, are the integration of the global auto industry and the similarity of consumer tastes across most of the world's markets. Thanks to the location of Saturn and Nissan auto production in Tennessee as well as Kentucky's nearby Toyota operations, the automotive trade is particularly important to this state. "Automotive products," by which we mean auto parts and other necessary supplies such as tires, filters, auto glass, seating, and so forth, are a huge portion of Tennessee's exports. In 2004, foreign sales of these products amounted to just over \$2.02 billion. This is about one-eighth of all state exports. (Exports of cars and trucks themselves would add another \$822 million to that total.) Only one of America's top 15 automotive suppliers does not have an operation in Tennessee.

Yet this is an economic sector that is under tremendous economic pressure. The major vehicle manufacturers

Top Five Automotive Products				
	Rank	Exports (2004)	% of U.S. (2004)	
Engine Generators	#1	\$60,894,982	19%	
Parts for Auto Seating	#1	\$156,617,493	8%	
Lead-Acid Batteries	#3	\$23,473,225	10%	
Radiators	#4	\$15,568,592	5%	
Misc. Auto Parts	#5	\$425,306,850	4%	
Auto Body Parts	#5	\$380,690,685	7%	
Bumpers	#5	\$17,873,213	4%	
Nondriving Axles	#5	\$7,343,088	4%	
Misc. Batteries	#5	\$14,431,681	11%	
Auto Seats	#5	\$17,013,847	9%	



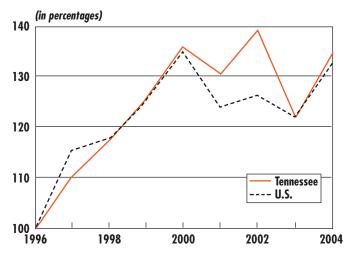
are demanding significant cost reductions from their suppliers. Most observers are also expecting significant new competition to arise from Chinese and other Asian parts manufacturers. As a result, a consolidation of this industry is widely expected, along with a significant shift of production overseas.

The numbers do paint a difficult picture. Imports of these products have soared 38 percent over the past five years while exports have grown six percent. The American auto product trade deficit has expanded from around \$10 billion to just under \$30 billion during this time. To bring these numbers to Tennessee, let's look at the trade in internal combustion engine generators. This state has been particularly successful in this product and leads all other states in exporting generators. (See the chart for a list of all automotive products in which Tennessee is among the top five exporting states.) Since 1999, Tennessee foreign shipments have increased by 50 percent (\$40.6 to \$60.8 million). Not bad. Yet, over this same time, imports of these generators have increased by more than 100 percent (\$247 to \$571 million).

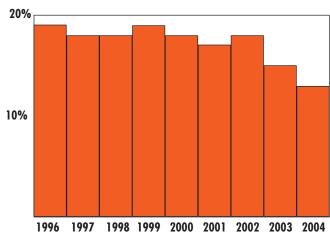
As noted, Tennessee is one of America's leading producers of automotive goods. These goods account for a larger percentage of the state's exports than they do for America overall. Only cotton, medical equipment, chemicals, and motor vehicles themselves rival auto supplies in the value of Tennessee's foreign shipments. The growth rate of automotive-related exports has continued fairly strong over the past decade. Tennessee firms today export about \$500 million more than they did a decade ago. In this respect the state has essentially mirrored the growth trajectory of the rest of the U.S. However, these products have not kept pace with the recent surge in state exports,

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Export Growth: Tennessee versus United States



Automotive Products as % of Tennessee Exports 1996-2004



AUTOMOTIVE continued from front

and, as shown in the chart, it appears that their share of total state exports is beginning to flag.

The breadth of exports is remarkable. The state has at least one exporting firm in virtually every single category of automotive products. About half of the exports are in "auto parts" narrowly defined (the tariff code HS 8708). Of this \$1.030 billion, \$380 million is in auto body parts. Outside of "auto parts," state firms sell significant amounts of tires (\$226 million), engine parts (\$168 million), and auto seating (\$173 million). Brakes, automotive glass, filters, and the above mentioned generators round out the largest of the exported automotive products.

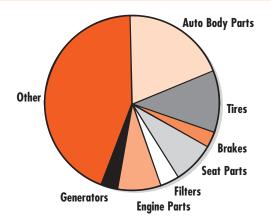
The vast majority of these exports are to the NAFTA market. As most North American auto manufacturing is integrated across the three NAFTA countries, this should not be surprising. In 2004, \$1.086 billion (54 percent) of the exports went to Canada, and another \$470 billion (23 percent) to Mexico. However, exports outside of the

NAFTA market have actually been growing a little faster than those within it. For example, Tennessee auto parts exports today are 75 percent within NAFTA but were 80 percent within this market nine years ago. Japan was long the major non-North American market, thanks in good measure to the many Japanese-owned automotive firms in the state. But in the past several years the European Union has overtaken Japan and is now a substantially larger market. In 2004, Tennessee exported \$119 million of auto products to Europe versus \$89 million to Japan. Latin America also surpassed Japan in 2004, albeit by only a million or so dollars. Close to \$70 million of the Latin American total goes to Brazil, making it one of the primary non-NAFTA markets. Finally, state exports are rising rapidly to China and the other East Asian New Industrializing Countries. Together, they purchased \$79 million of Tennessee auto products last year and seemed poised to become a major market for the state.

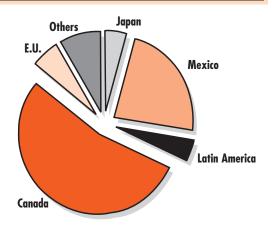
What is the future for this industry, a critical part of Tennessee's international sector and, indeed, of its entire

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Tennessee Auto Part Exports, 2004



Destination



4th Quarter 2004

IN TENNESSEE, MOST MISCELLANEOUS MANUFACTURES ARE IN THE MEDICAL SECTOR.



4th Quarter 2004

AUTOMOBILE EXPORTS CONTINUE TO BE STRONG.

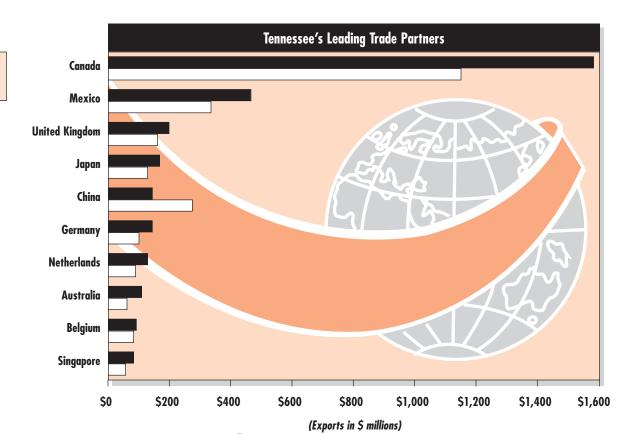


4th Quarter 2004 4th Quarter 2003

Tennessee's Largest Export Sectors				
	Exports	Change from Last Year	Change from Last Quarter	
Transportation Equipment	\$972,518,131	66.9%	12.1%	
Computer and Electronics	\$639,114,171	27.3%	7.2%	
Chemicals	\$589,486,106	23.7%	13.1%	
Industrial Machinery	\$308,496,404	17.9%	9.7%	
Miscellaneous Manufactures	\$207,178,594	52.2%	22.6%	
Agriculture	\$331,187,257	-32.6%	-22.8%	

What's Hot and What's Not			
	Value of Exports	Growth	Decline
SECTORS WITH THE GREATEST GROW	TH		
Vehicle Engines not over 250 cc	\$4,446,536	86,374.8%	
Donated Food Exports	\$6,234,800	7,031.5%	
Pen and Mechanical Pencil Parts	\$7,867,111	1,405.2%	
SUVs and Trucks	\$110,863,977	548.8%	
Medical Needles, Catheters, and Parts	\$30,034,762	532.2%	
SECTORS WITH THE GREATEST DECLIN	IE .		
Yachts	\$4,397,662		-67.3%
TV Video Games	\$17,079,446		-50.1%
Laser Discs	\$34,056,879		-46.9%
Oil Filters	\$11,126,982		-36.5%
Articles Donated for Relief	\$9,210,097		-30.3%

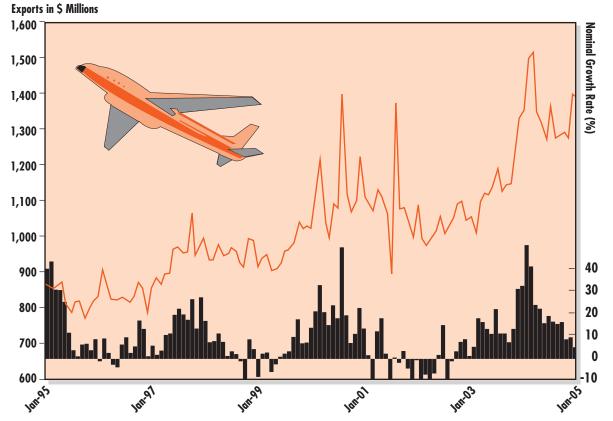
(Among Tennessee's top 100 exported goods)



NAFTA MARKETS MORE THAN OFFSET LOSSES IN CHINA.



Tennessee Monthly Exports



(Seasonally adjusted, expressed in year 2000 dollars)

4th Quarter 2004

Fastest-Changing Export Destinations			
Value of Exports	Gain	Decline	
ROWTH			
\$11,814,301	343.5%		
\$20,933,516	191.8%		
\$9,532,458	165.7%		
\$2,306,610	146.6%		
\$28,602,361	141.8%		
\$14,063,640		-65.0%	
\$149,168,771		-46.3%	
\$18,771,876		-46.2%	
\$1,461,691		-32.6%	
\$6,507,046		-28.7%	
	Value of Exports ROWTH \$11,814,301 \$20,933,516 \$9,532,458 \$2,306,610 \$28,602,361 ECLINE \$14,063,640 \$149,168,771 \$18,771,876 \$1,461,691	Value of Exports Country S11,814,301 S20,933,516 S20,933,516 S9,532,458 S2,306,610 S28,602,361 COUNE S14,063,640 S149,168,771 S18,771,876 S1,461,691	

(Among countries averaging more than \$2 million in sales per quarter)

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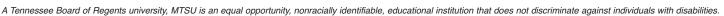
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TENNESSEE INTERNATIONAL TRADE REPORT



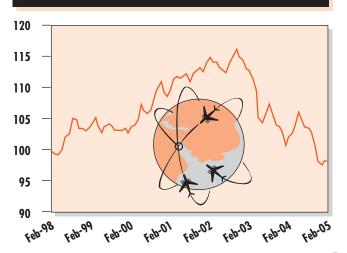
IN SHORT, THE FOURTH QUARTER WAS ABOUT AS GOOD AS IT GETS.... FOR [MOST OF THE STATE'S EXPORTERS], 2004 MUST COUNT AS ONE OF THE BEST EXPORT YEARS EVER.

Tennessee exports continue on a roll. At \$4.273 billion, fourth quarter exports were up by more than a quarter from a year earlier. The state's 27.3 percent growth rate well exceeded the national 10.8 percent increase in exports. These numbers contributed to one of Tennessee's best years ever. Total 2004 exports stood at \$16.1 billion, \$3.5 billion more than in 2003. In longer perspective, the 2004 figures are more than double those of 10 years ago.

While state exports rose in virtually all regions of the world, the NAFTA market provided the largest dollar gains. Tennessee sales in Canada were up a remarkable 39 percent, to \$1.6 billion. While laptop computer exports were extremely strong (up \$70 million), the bulk of the gains were in the automotive industry. Motor vehicle exports tripled (\$79 million to \$250 million) and auto parts sales added another \$63 million in new exports. The only industry that turned in poor numbers was video games. Exports of these games were down \$9 million, to \$24 million for the quarter. Mexico also turned in some very good numbers. Tennessee exports rose to \$470 million, a 22 percent increase. Again, it was the auto industry that accounted for the majority of the gain. However sales of computers, electrical parts, pens, and containers were all strong.

The most dramatic change in exports occurred in China. China slipped from third to fifth among the state's foreign markets as the result of a \$128 million drop in exports. This was the worst performance in any major market, but there is less here than meets the eye. The losses stem from a spectacular drop in one product, cotton. Cotton exports to China fell from \$196 million to \$37 million. A little math reveals that exports of all other industries were actually up nearly \$30 million, a 38 per-

Tennessee Trade-Weighted Dollar Index



cent increase. The results in China are also mitigated by the state's strong performance in Hong Kong, where gains in computer and chemical sales boosted Tennessee exports by some \$23 million.

Elsewhere in Asia the numbers were very good, with one exception. That was Malaysia, where a sizable drop in laptop and computer sales reduced state exports by more than \$20 million. But exports gained 24 percent in Korea, mostly due to auto parts; 36 percent in Singapore, as a result of cotton, chemical, and turbojet sales; and close to 100 percent in Indonesia and Thailand, in both cases from cotton. Japan's economic growth enabled it to also significantly increase its purchases of Tennessee goods. Chemicals and medical equipment led the way to a 31 percent gain (to \$175) in the state's fourth largest market.

Exports to the E.U. were every bit as strong as to Asia. Tennessee sales in the euro market grew by more than a quarter (28 percent, to \$598 million). The star products were in the medical sector. Medical instruments, orthopedic parts, and x-ray equipment combined for \$157 million in euro market exports. The lion's share of these gains were in Germany, where state exports were up \$42 million. Ireland alone bucked the trend as, thanks to a decline in laptop sales, its purchases of Tennessee products fell from \$34 to \$19 million. Exports in the U.K., on the other hand, broke the \$200 million mark (a 23 percent gain). This was the result of gains in a wide swath of industries, including aircraft parts, medical instruments, and whiskey.

Latin America did not provide quite the performance achieved in Europe and Asia, but even in this market state exports were up 13 percent. Sizable increases in chemical and auto parts sales overcame a decline in cotton to produce a 24 percent rise in exports to Brazil, by far the South American continent's largest single market. Cotton and synthetic fiber sales produced robust export gains in Central America (55 percent, to \$62 million). However, outside these two areas, sales were mostly flat or modestly down.

In the rest of the world, Australia was clearly the best market. Tennessee sales Down Under grew by two-thirds this quarter (to \$111 million). Though medical instruments and heavy machinery were particularly strong, the growth was across a large number of export sectors. Close behind Australia was the Middle East, where both Saudi Arabia and the United Arab Emirates more than doubled their purchases of state products. Total Middle East exports grew to \$77 million for the quarter. Thanks to a major purchase of aircraft in Nigeria, sales to Africa were also up for the quarter. Exports to Africa grew from \$29 million to \$49 million.

In short, the fourth quarter was about as good as it gets. To be sure, several industries saw significant export losses. Laptop computer sales were off 8 percent, and aircraft part sales were down 16 percent. Car seats, potato chips, laser discs, telephony products, and terephthalic acids were among the other sectors experiencing a decline in exports. However, these were the exceptions to the substantial gains made by most state exporters. For the latter, 2004 must count as one of the best export years ever.



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economy? For better or worse, one should expect increasingly difficult competition from across the globe. Less sophisticated products are very likely to go overseas. The trade magazine *Trade and Industry Development* suggests that auto batteries, wheels, plastics, electronics, and power train components are particularly endangered.² While all of these are made in the state, only automotive batteries are produced and sold here in substantial numbers. However, that magazine and other sources also suggest that door panels, brakes, and interior components are already heavily outsourced. This state is a substantial producer of these products, and these companies, too, may be under great pressure in coming years.

But it is far too early to predict the demise of the automotive product industry! A number of Tennessee firms in this area are continuing to grow and are posting ever better export numbers. We've listed the five fastest growing auto-related exports, and you can see how healthy these numbers look. The vast size of the automotive industry guarantees that many firms will survive and flourish even in a period of intensifying competition and price pressure. Though individual products are likely to suffer and consol-

Fastest Growing Tennessee Auto-Related Exports 1996-2004		
	% Growth	2004 Exports
Radios	36,710%	\$26,339,159
Spark Plugs	1,396%	\$6,569,292
Elec. Signaling Equipment	2,749%	\$10,328,734
Tapered Roll Bearings	1,963%	\$15,626,740
Bumpers and Parts	1,577%	\$17,873,213
Lead-Acid Batteries	1,271%	\$23,473,225

idation will occur, the auto industry looks to continue as one of Tennessee's leading exporters and to remain a major engine of globalization in this state.

¹ The Census Bureau's Office of Automotive Affairs' definition of automotive products was used in compiling the numbers for this article.

² First Quarter, 2005. www.tradeandindustrydev.com/