



# Global Commerce

## Tennessee and the International Economy

### COTTON

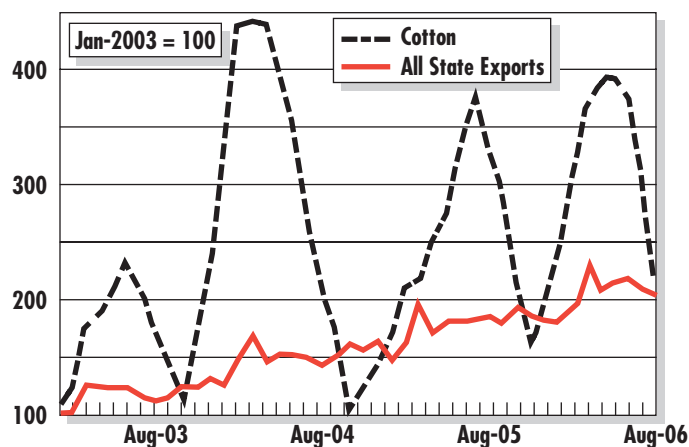
#### TENNESSEE'S LARGEST EXPORT

by Steven G. Livingston

When it comes to Tennessee exports, cotton really is king. For the past three years, cotton has been the state's leading export. Through August 2006, cotton exports were valued at 1.376 billion dollars, more than \$300 million ahead of the state's second largest export, cars. These exports are heavily seasonal, as might be expected, but a quick look at the chart to the right reveals how rapidly cotton sales have grown in recent years when compared to Tennessee's overall export growth rate. The result has been the steady expansion of the percentage of all American cotton exports coming from this state. For the past four years, Tennessee has been the nation's leading cotton exporter. In 2004 and 2005, Tennessee accounted for 40 percent of all of America's cotton shipments overseas.

An obvious question is whether all this cotton is actually from Tennessee. And in truth, it isn't. In 2005, the total state cotton crop was valued at around \$253 million. Even if it had been entirely exported, another \$1 billion in cotton exports would have to have come from other states. Tennessee-grown cotton exports were actually about \$175 million last year.<sup>1</sup> This is still a remarkable increase

#### Comparing Export Growth: Cotton vs. All State Exports



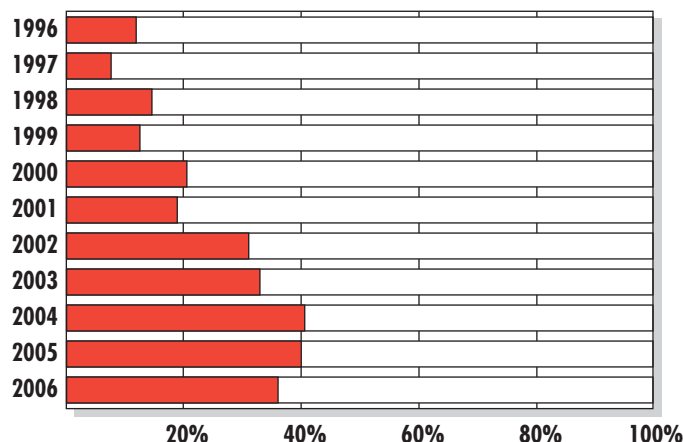
because Tennessee-grown cotton exports have more than doubled since the early 1990s. (To put it another way, if we counted only Tennessee-grown cotton, it would still be the state's 14th largest export good.) To some extent this increase is a reflection of larger cotton harvests following a new agriculture price-support law passed in 1996. But it is far more the product of the increasing dependence of American cotton farmers on export markets. Today, more than 70 percent of Tennessee's, and America's, cotton is sold abroad.

The increasing importance of cotton exports can also be seen in the percentage of Tennessee agricultural exports accounted for by this crop. Going back to the 1960s, cotton, soybeans, and tobacco were the state's largest farm exports. In the 1970s, however, soybeans and grains dominated. But since that time, cotton has taken primacy. In 2005, cotton accounted for nearly a quarter of the state's agricultural exports. In 2005, it surpassed soybeans, now the state's second largest farm export, by more than \$50 million.

#### Why Does Tennessee Export More Than It Grows?

As noted, there is a gap of \$1 billion between how much cotton the state grows and how much it exports. Why? A portion is due to Mississippi or Arkansas cotton that is brokered through Memphis. But mostly it is because the nation's three largest cotton shippers, Allenberg Cotton, Dunavant, and Cargill, are located in Tennessee. (In

#### Percent of U.S. Cotton Exports from Tennessee



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fact, the American Cotton Shippers Association is jointly headquartered in Memphis and Washington, D.C.) Cotton shipped through these companies is, as a result, often listed as coming from Tennessee. This inflates the state's export numbers. However, we should note that this "inflation" is not entirely without justification: it reflects the economic health of these companies and indicates real economic activity occurring in the state.

## Cotton Exports and the World Economy

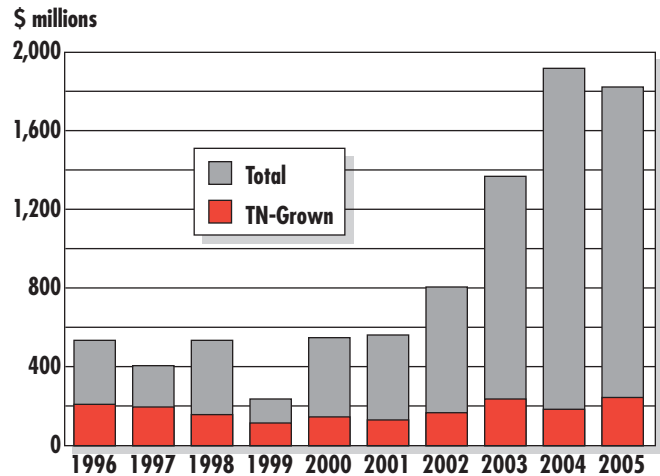
A major reason for the increasing export dependence of cotton is, of course, the migration of the American textile and apparel industries overseas. Cotton, the primary material for these industries, follows. Because of this, tracking cotton exports is an excellent way to watch the changing pattern of global industrialization. Textiles and apparel are often thought to be the first steps in the industrial development of an economy. If we observe the past decade of cotton exports, we can see first the move of the clothing industry to Mexico and Central America, which peaked around 2000, followed by the beginnings of a shift in production to the newly industrializing regions of Southeast Asia and Turkey, and finally the overwhelming, stunning arrival of the Chinese clothing industry. China has risen to dominate the global textile and apparel industries and currently takes more than half of Tennessee's cotton exports.

## The Future of Tennessee Cotton Exports

Will Tennessee cotton exports continue to grow? Yes, albeit at a slower pace. After dropping through the early 1990s, Tennessee cotton production has doubled in the past seven years. There were substantial increases in the harvests for both 2004 and 2005. The natural limit is the acreage amenable to planting cotton. Half of Tennessee's cotton is grown in just four counties (Crockett, Haywood, Lauderdale, and Tipton). However, in the past four years, the expansion in the bales of cotton produced has exceeded the expansion in the acreage planted, so it would appear that there continues to be room for growth. Of course the more sizable component of the recorded exports will continue to come from the operations of the large shippers. They rely on cotton from around the U.S. (we often forget that California and Texas are the leading cotton states today). The ongoing move of the clothing industry to the less developed world will further increase the export dependence of cotton farmers and the amount of their cotton that is exported. The biggest threats to continued export growth are going to be increased trade competition from other global cotton producers, with the potential for WTO actions against U.S. farmers, and any changes to the price support systems, whether driven by American budget difficulties or international pressure, that have encouraged cotton farmers to increase production in recent years. Absent

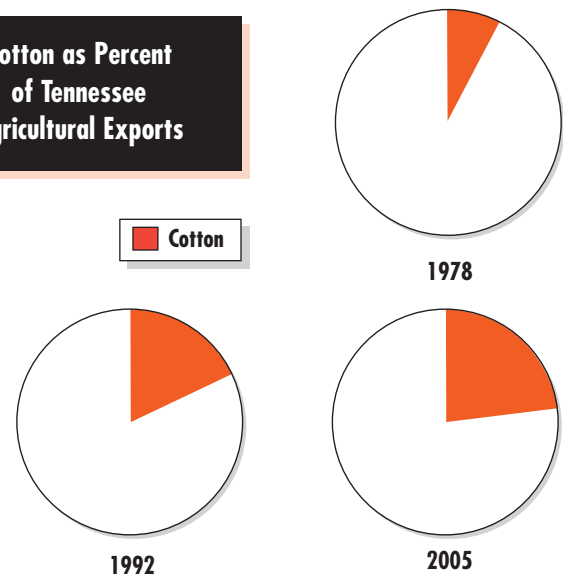
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## Tennessee Cotton Exports

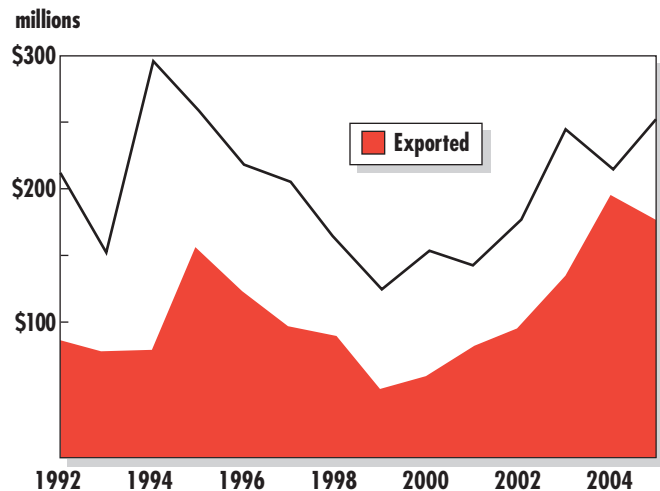


## Cotton as Percent of Tennessee Agricultural Exports

Cotton



## Percent of Tennessee Cotton That Is Exported



2nd Quarter 2006

ALL OF THE STATE'S  
LARGEST EXPORT  
SECTORS POSTED  
GAINS LAST  
QUARTER.



### Tennessee's Largest Export Sectors

	Exports	Change from Last Year	Change from Last Quarter
Transportation Equipment	\$1,219,024,754	4.0%	12.1%
Computer and Electronic Products	\$848,943,771	39.4%	5.3%
Chemicals	\$734,785,500	20.7%	7.9%
Agriculture	\$569,676,542	28.4%	-0.4%
Miscellaneous Manufactured Goods	\$493,953,631	16.2%	8.8%
Nonelectrical Machinery	\$422,707,929	6.0%	1.2%

2nd Quarter 2006

HUMAN BLOOD  
PREPARATIONS,  
UNFORTUNATELY,  
ACCOUNT FOR THE  
GAINS IN IRAQ.



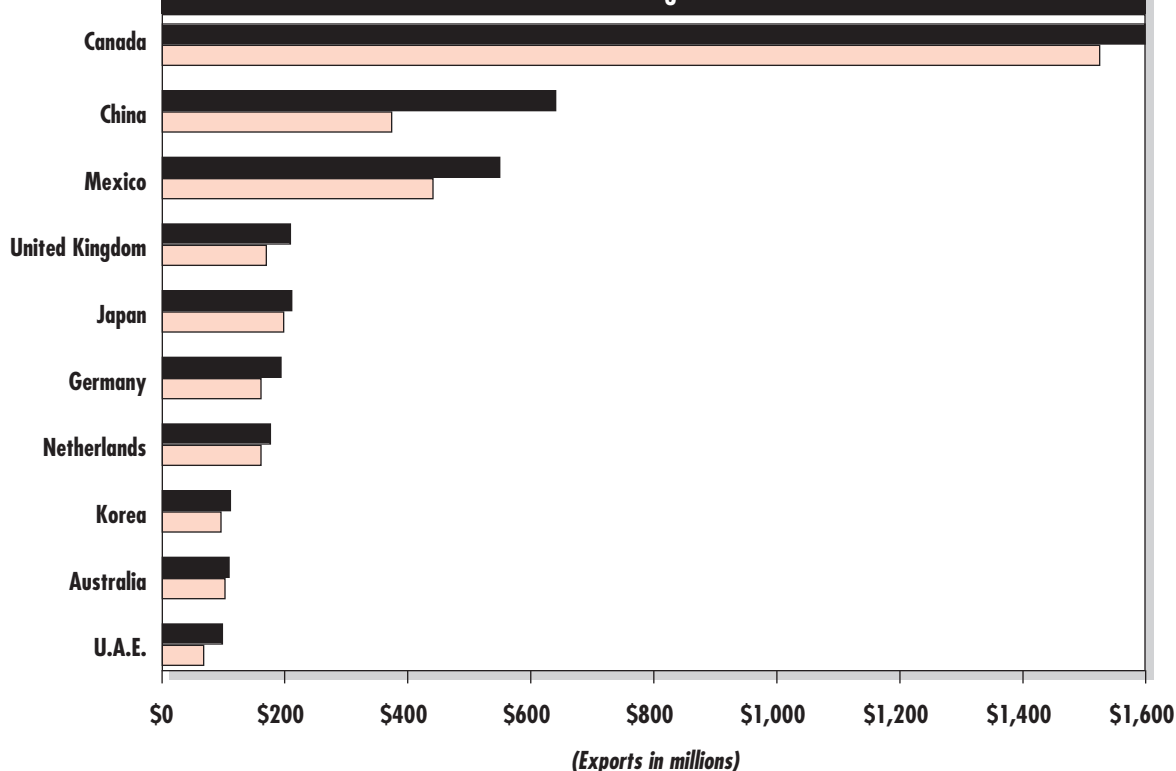
### Fastest-Changing Export Destinations

	Value of Exports	Gain	Decline
<b>COUNTRIES WITH THE GREATEST GROWTH</b>			
Iraq	\$2,473,380	503.5%	
Saudi Arabia	\$83,113,854	188.8%	
Serbia and Montenegro	\$3,303,791	140.0%	
Singapore	\$122,622,718	119.0%	
Chile	\$27,964,621	108.3%	
<b>COUNTRIES WITH THE GREATEST DECLINE</b>			
Pakistan	\$9,948,440		-59.9%
Oman	\$6,799,146		-51.0%
Norway	\$3,260,506		-49.8%
Costa Rica	\$7,515,561		-41.5%
Kuwait	\$32,548,422		-35.3%

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

2nd Quarter 2006  
2nd Quarter 2005

### Tennessee's Leading Trade Partners

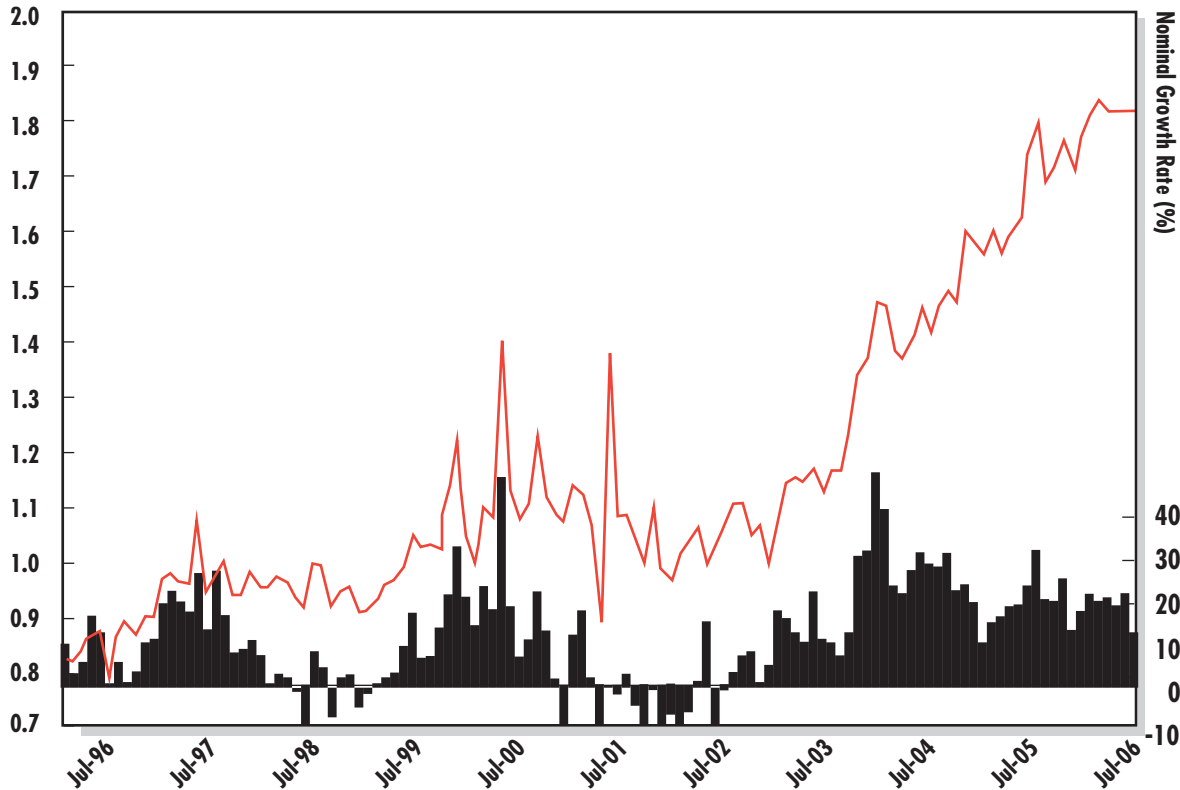


THE UNITED ARAB  
EMIRATES HAS  
BECOME ONE OF THE  
STATE'S LARGEST  
MARKETS.



## Tennessee Monthly Exports

Exports in \$ billions



2nd Quarter 2006

### What's Hot and What's Not\*

	Value of Exports	Growth	Decline
<b>SECTORS WITH THE GREATEST GROWTH</b>			
Miscellaneous Engines and Motors	\$28,393,664	42,318.5%	
Nylon Textured Yarn > 500 tex	\$13,347,007	3,611.6%	
Upholstered Wooden Seats	\$14,402,360	1,295.5%	
Plasticized Cellulose Acetates	\$19,775,899	846.7%	
Plastic Coated Paperboard	\$3,072,337	530.6%	
<b>SECTORS WITH THE GREATEST DECLINE</b>			
Rolling Machine Cylinders	\$582,819		-96.4%
Passenger Vehicles with Engines > 3,000 cc	\$72,165,230		-56.9%
Electrical Circuitry Parts	\$5,666,557		-52.9%
Gas Turbines > 4,000 kw	\$17,187,745		-44.1%
Parts of Instruments for Measuring Ionizing Radiation	\$15,012,006		-35.5%

\*Among Tennessee's top 100 exported goods.

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**MIDDLE  
 TENNESSEE**  
 STATE UNIVERSITY



**PERHAPS THE MOST TELLING STATISTIC IS THAT 41 OF THE STATE'S TOP 50 EXPORTED COMMODITIES INCREASED THEIR EXPORTS LAST QUARTER.**

The second quarter of 2006 was one of the strongest quarters on record for Tennessee exporters. Exports were up 18 percent, to \$5.7 billion. Rarely if ever have the gains been so broad and deep. Of the 32 total NAICS-defined export industries, Tennessee's top 13 *all* posted increased exports for the quarter. We have to reach number 14, the food products industry, to see a decline. Sales were up in the state's 17 largest foreign markets. We have to get to number 18, Belgium, to see a drop.

The numbers, though, also indicate a continuing concentration of exports into a smaller number of both industrial sectors and markets. The transportation, computer/electronics, and chemical industries now combine for close to half of all state exports. These plus cotton, the medical equipment industry, and nonelectrical machinery account for almost three-quarters of total Tennessee exports. By the same token, Canada, China, and Mexico now together buy more than half of all the state's exports.

Exports to Canada, long the state's biggest market, continue to grow at a surprising rate. At \$1.72 billion, they are three times the size of the number-two market, China. This past quarter, the state survived a substantial drop in car and especially SUV exports but still posted a 13 percent gain in sales. Most of the growth was in computer exports, whether laptops, PCs, or components. Video games were also remarkably strong (up from \$8 million to \$36 million). A welcome return of line telephony exports (\$4 million to \$30 million) joined motorboats, wooden seats, and aluminum alloys as other strong performers for the quarter. Outside of autos, the only sizable losses were in lawn mower and air conditioner sales.

China's dizzying growth continued to benefit Tennessee exporters. Unlike Canada, it remains centered on one product, cotton. Cotton sales to China expanded from \$230 million to \$392 million. However, exports from other sectors are rising just as rapidly. If we removed all cotton exports, China would still be the state's fourth largest market! Chemicals (especially cellulose acetates), engines and motors, and various textile goods are among the leading Tennessee growth sectors in China.

Mexico may have been overtaken by China, but it is still a rapidly growing market for Tennessee. State exports to Mexico were up by a quarter for the quarter, to \$554 million. The increase was due to PC sales, automotive body parts, and, most important, aluminum sheeting. The latter gained about \$67 million last quarter, nearly two-thirds of the total export gains in Mexico.

It was actually a very good quarter in most of Latin America. Exports to South America were up 31 percent. Brazil and Argentina, the two largest markets, each grew more than 15 percent; TV parts, chemicals, and cotton were in the lead for Brazil, while medical goods and laptops were strong in Argentina. Venezuela, Colombia, and Chile are smaller markets, but each posted extremely

good numbers for the quarter. Plastics and paper products were the star industries in Venezuela, while laptops, again, were the story in Chile. The only parts of Latin America to see reverses were the Central American and Andean countries, mostly due to the continuing difficulties of the apparel sector there.

Moving to Asia, excepting China, Singapore was clearly the state's best market. Thanks to large increases in purchases of airplane parts, gas turbines, and turbojets, Singapore accounted for \$122 million of Tennessee's second-quarter exports, a gain of 119 percent from a year ago. Singapore's fellow ASEAN markets were, on the other hand, flat. Export gains in Indonesia and Malaysia were matched by losses in Thailand and the Philippines, the result of declines in sales of cotton and medical diagnostic equipment. Japanese purchases were also rather flat, with gains in various medical products (surgical catgut is now the largest single Tennessee export to Japan) largely offset by losses in orthopedics and motor vehicle and motor parts. Nevertheless, Japan remains the state's fourth largest market.

The massive increases in vehicle and aluminum sheeting sales to the Middle East that began in early 2005 continued. Tennessee's exports of cars to the region were up another 40 percent (to \$294 million), and its exports of aluminum sheeting more than doubled. As a result, the U.A.E., with a population of just four million, has become the state's 10th largest export market. In a sign of the times, Tennessee is again exporting to Iraq, but the leading product is blood and blood products.



**RARELY IF EVER HAVE THE GAINS BEEN SO BROAD AND DEEP.**

In Europe, Tennessee exporters broke the billion dollar mark for the first time this quarter, a 13 percent gain from last year. Throughout Europe, the star Tennessee exports have been in the medical industry, including medical instruments, diagnostic equipment, orthopedic equipment, and medicaments. Strong numbers in Italy, the Netherlands, France, and Germany were largely due to medical sales. Spain, another strong market, saw an increase in medical instrument sales, too, but its performance (a 20 percent gain, to \$79 million) was actually more owing to purchases of motor vehicle parts and auto-body parts. The U.K., too, posted good numbers. Tennessee's 22 percent gain in Great Britain was largely the result of increased exports in airplane parts, turbojets, laptops, and whiskey. The only European market to buck the trend was Belgium, where exports fell \$28 million (26 percent) thanks to a large decline in rolling machine cylinder sales and an equally large loss in titanium dioxide preparations. In dollar terms, Belgium was state's worst market for the quarter.

Looking at the big picture, most of Tennessee's export growth is being generated in the state's computer, medical, and aluminum industries. Cotton, while still a very large

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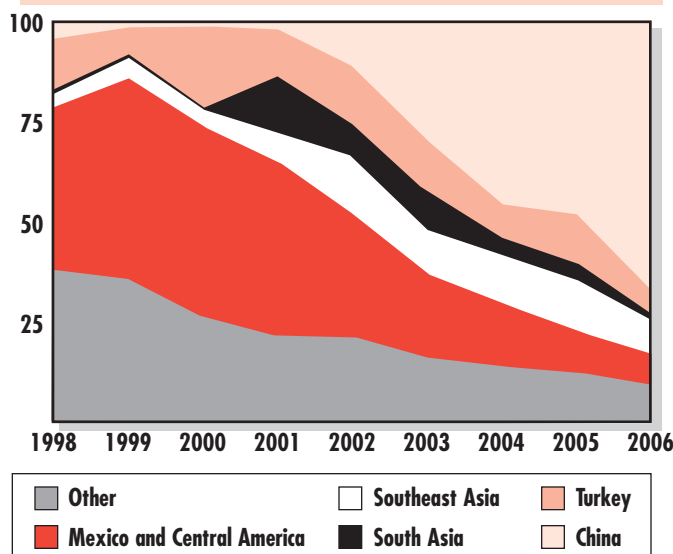
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**COTTON**  
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these latter events, we should expect to see growing cotton exports from Tennessee in the coming years. ■

<sup>1</sup> This is the estimate from the Department of Agriculture, which may be a little low for this state.

**Destination of Tennessee's Cotton Exports (Percent)**



**INTERNATIONAL**  
*continued from page 5*

export, appears to be peaking. The automobile sector is difficult to read. SUV sales have fallen as have motor vehicle parts. However, cars, autobody parts, and a variety of automotive equipment (e.g., brakes, oil filters) continue to make gains. This suggests that we should continue to see some good numbers over the next several quarters. ■

**Tennessee Trade-Weighted Dollar Index**

