



# Global Commerce

Tennessee and the International Economy

## A SURVEY OF TENNESSEE'S INTERNATIONAL PORTS

by Steven G. Livingston

It may be a surprise to some, but Tennessee is the home of five international ports. Despite the absence of an ocean, billions of dollars of trade flow through them. While little attention is often paid to the *process* of international trade, the activities of ports, transportation companies, brokers, and other trade services are themselves a multimillion-dollar industry.

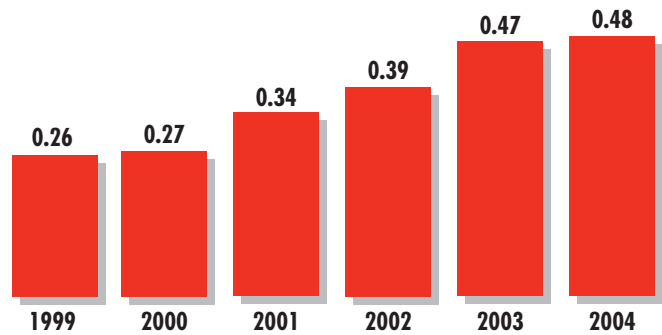
Tennessee's five ports are Chattanooga, Knoxville, Memphis, Nashville, and the Tri-Cities (technically the Tri-City User Fee Airport, in Blountville). In 2004, \$11,002,044,853 of exports and imports traveled through them. Perhaps surprisingly, most of these goods are not from Tennessee. In the first quarter of 2005, for example, Tennessee accounted for only 39 percent of the exports that went through these ports. In 2004, it was just 23 percent.

By the same token, most state exporters do not use Tennessee ports. In fact, only about three percent of the state's foreign sales go through local ports. Instead, the preferred ports are those on the Mexican and Canadian borders (especially for the motor vehicle industry), Charleston (for the chemical industry), or Savannah and the Southern Californian ports (for cotton). However, Atlanta's position as the eighth biggest port used by Tennessee firms suggests that access to waterborne transportation is no longer absolutely necessary for a city to become a substantial American port.

Top 10 Ports for Tennessee Exports	
Detroit	18%
Charleston	13%
Savannah	8%
Laredo	8%
Los Angeles	7%
New Orleans	6%
Port Huron	5%
Atlanta	5%
Long Beach	3%
Buffalo-Niagara	3%

Each of Tennessee's ports is connected with a Foreign Trade Zone (FTZ), which offers customs advantages to users and accounts for a fair portion of the trade. (There is an additional FTZ in Oak Ridge.) Because FTZs involve regulations that can be used to avoid some customs charges, they sometimes lead to rather unexpected products and locales showing up in the trade figures! Of course, in the context of the entire

A Slow Ascent: % U.S. Trade through Tennessee Ports



U.S., the trade through Tennessee ports is not large, but, as shown in the graph, these ports are grabbing an increasing amount of U.S. trade. In fact, trade through them has grown 185 percent in the past 10 years.

Like everywhere else in the U.S., Tennessee ports handle more imports than exports. What is remarkable is how this gap has grown in recent years. Ten years ago, imports constituted about four-fifths of port activity. Today that portion is seven-eighths. The single biggest contributor to this gap is computers. Computer imports have more than doubled through Tennessee ports in just the past two years. But imports as disparate as medicines and natural gas have also increased greatly.

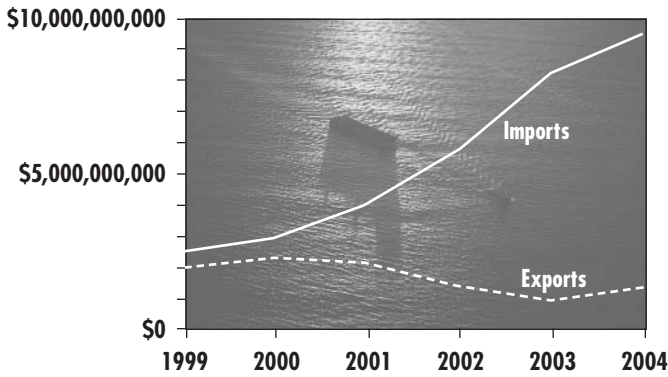
Once upon a time Memphis was by far the dominant state port. In the mid-'90s, 82 percent of the trade going through Tennessee ports went through Memphis. This is no longer the case. In 2004, Nashville surpassed Memphis as the state's busiest international port. This has been due to a tremendous surge of imports into Nashville.

Memphis remains, however, the state's biggest port of embarkation. It ranks 75th among America's ports in its volume of exports. In 2004, these exports just exceeded \$1 billion. For many years, the largest export sector has been computer-related office equipment. However, a substantial shipment of turbines and turbo parts to Singapore accounted for some 15 percent of the port's exports in 2004, making this its leading product. As with most Tennessee ports, aircraft (and parts) are a major export too. The port of Memphis is also taking advantage of the state's boom in medical exports. Combined, the medical sector also amounted to 15 percent of the port's exports during this past year.

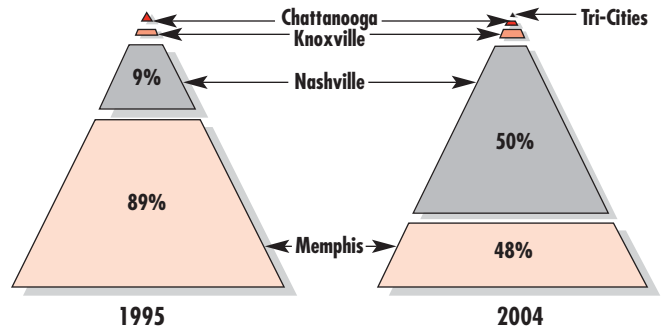
Memphis imports substantially more than it exports (\$4.381 billion to \$1.030 billion in 2004). Canadian natu-

continued on page 2

## Tennessee Port Trade



## Tennessee Ports' Share of Total State Exports 1995 and 2004



## PORTS

continued from front

ral gas is, by a large margin, the most important import. This has not changed for a decade. In 2004, half of the port's imports were natural gas. The number-two import has also not changed for many years: aircraft. Last year, another 16 percent of imports were airplanes.

Nashville has been the state's most rapidly growing port. Exports through Nashville have more than trebled in the past decade, and it is now America's 113th largest port of export. The products it exports are quite diverse, although most of the action is in machine parts and machine tools. About half of exports are in this area. Laptop computers constitute the second largest, and a rapidly growing, sector. As noted, the largest growth in Nashville has been on the import side. It is now the 56th largest port of import (Memphis is 66th). Computers, overwhelmingly, were the reason for this. In 2002 there were no Nashville computer imports. Today fully 85 percent of imports (\$4.453 billion) are of computers or computer parts. The vast majority are from Malaysia (more than 70 percent) and other Asian sources.

The state's remaining three ports are smaller. Knoxville has long been and remains the state's third largest port. In 2004, a record \$4.093 million in exports left Knoxville. This is more than three times the exports of 10 years earlier. The exports are primarily instruments, such as measuring instruments, instruments for chemical analysis, drawing instruments, and calculators. This is actually a bit of a change from a port that once exported primarily textiles, chemicals, and automotive products. Knoxville imports about four times what it exports, making it the nation's 256th largest port of import. These imports are

concentrated in one area, ball bearings and roller bearings. Eighty percent of the port's imports are some type of bearing or bearing housing.

Chattanooga is the one Tennessee port that has not been growing. It actually handles substantially less trade than in the 1990s. In 2004, about \$100,000 in exports left Chattanooga. About half of this was shipments of plants to

continued on page 6

## Tennessee's Ports: Export Markets and Volume

Chattanooga	Knoxville	Memphis	Nashville	Tri-Cities
\$475,727	\$20,311,103	\$5,411,748,306	\$5,568,066,990	\$1,442,727
Other	Other	Other	Other	Other
Taiwan	Europe	East Asia	Taiwan	Europe
Finland	Canada	Europe	China	Latin America
Canada	Mexico	Canada	Malaysia	Other East Asia
				China
				Singapore

## Biggest Exports and Imports

	Top Export, 2000	Top Export, 2004	Top Import, 2000	Top Import, 2004
Chattanooga	Aircraft Engines and Parts	Plants	Pulleys, Winches, etc.	Overcoats
Knoxville	Nonmedical Hormones	Measuring Instruments	Ball Bearings	Roller Bearings
Memphis	Integrated Circuits	Turbo and Turbine Parts	Natural Gas	Natural Gas
Nashville	Aircraft Parts	Machinery and Appliance Parts	Telecommunications Parts	Computers
Tri-Cities	Sulfonamides	Esters of Inorganic Acids	Electrical Circuitry	Cigarettes

1st Quarter 2005

CARS WERE UP;  
COTTON WAS DOWN.



### Tennessee's Largest Export Sectors

	Exports	Change from Last Year	Change from Last Quarter
Transportation Equipment	\$1,091,465,347	66.2%	12.2%
Computer and Electronic Products	\$673,821,116	33.4%	5.4%
Chemicals	\$558,724,848	10.9%	-5.2%
Nonelectrical Machinery	\$373,119,836	7.8%	2.8%
Miscellaneous Manufactured Goods	\$365,567,760	48.5%	16.0%
Agriculture	\$354,071,503	-51.9%	58.6%

1st Quarter 2005

SUV AND TRUCK  
EXPORTS  
CONTINUED  
TO SURGE



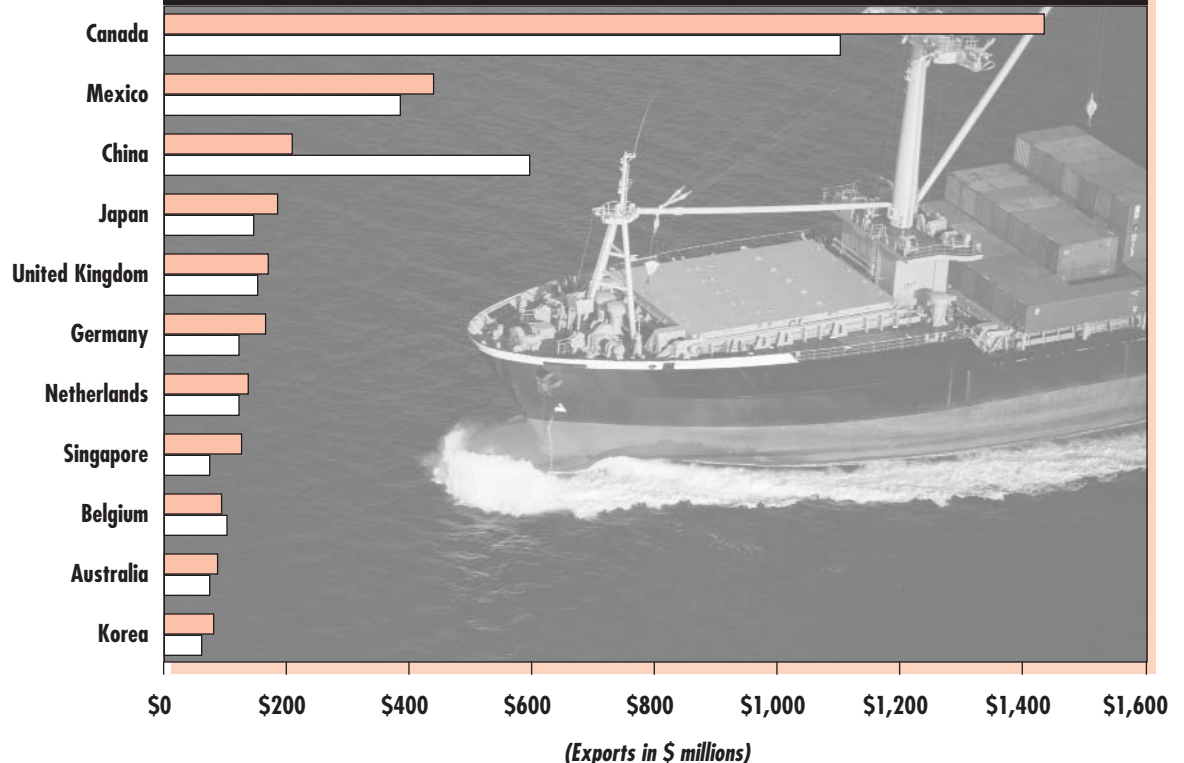
### What's Hot and What's Not

	Value of Exports	Growth	Decline
<b>SECTORS WITH THE GREATEST GROWTH</b>			
Sterile Surgical Catgut	\$12,430,205	48,703.3%	
Pen and Mechanical Pencil Parts	\$7,808,521	4,926.1%	
SUVs and Light Trucks	\$157,781,110	1,398.8%	
Machinery Parts	\$9,665,976	1,135.5%	
Donated and Charitable Foodstuffs	\$13,347,072	50.7%	
<b>SECTORS WITH THE GREATEST DECLINE</b>			
Music and Entertainment Laser Discs	\$9,125,828		-63.6%
Telephony Line Apparatus	\$9,542,156		-58.9%
Automotive Oil and Fuel Filters	\$10,459,188		-44.4%
Video Games	\$8,863,383		-43.2%
Airplane Parts	\$64,431,033		-42.3%

(Among Tennessee's top 100 exported goods)

1st Quarter 2005  
1st Quarter 2004

### Tennessee's Leading Trade Partners

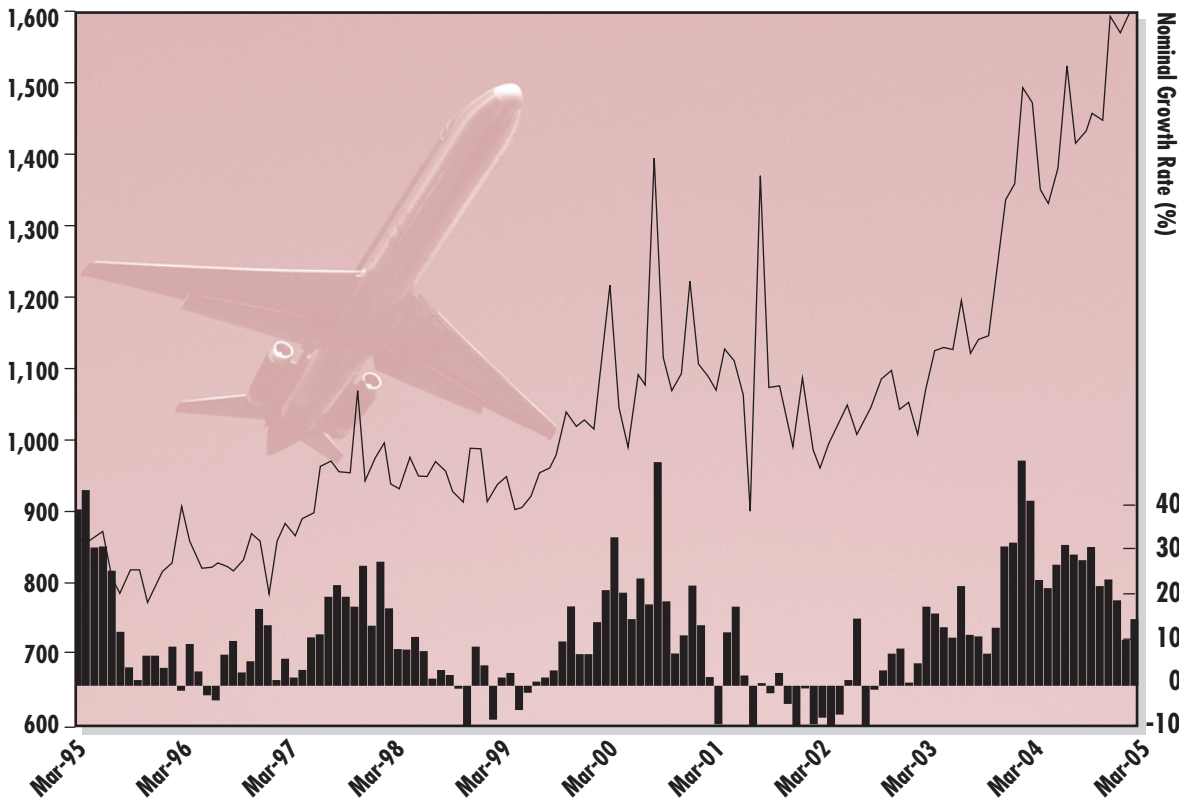


CANADA? CARS!  
CHINA? COTTON!



## Tennessee Monthly Exports

Exports in \$ Millions



(Seasonally adjusted, expressed in year 2000 dollars)

1st Quarter 2005

### Fastest-Changing Export Destinations

	Value of Exports	Gain	Decline
<b>COUNTRIES WITH THE GREATEST GROWTH</b>			
United Arab Emirates	\$72,367,305	654.5%	
Kuwait	\$34,019,516	578.0%	
Spain	\$77,861,362	158.9%	
Pakistan	\$29,277,051	152.4%	
Saudi Arabia	\$42,131,816	116.5%	
<b>COUNTRIES WITH THE GREATEST DECLINE</b>			
Hungary	\$1,798,083		-90.0%
China	\$212,416,337		-64.3%
Colombia	\$14,772,786		-47.6%
Poland	\$3,561,142		-41.8%
Finland	\$4,691,611		-27.2%

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

*Global Commerce: Tennessee and the International Economy*, published quarterly by the Business and Economic Research Center, Jennings A. Jones College of Business, Middle Tennessee State University, is available free of charge to interested individuals and institutions.

Editor: Steven G. Livingston  
 Publications Editor/Designer,  
 Jennings A. Jones College  
 of Business: Sally Ham Govan  
 Phone: 615-898-2610  
 Web: [www.mtsu.edu/~berc/trade\\_database.html](http://www.mtsu.edu/~berc/trade_database.html)

**MIDDLE  
 TENNESSEE**  
 STATE UNIVERSITY

A Tennessee Board of Regents university, MTSU is an equal opportunity, nonracially identifiable, educational institution that does not discriminate against individuals with disabilities. AA319-0605



**SPANNING MOST INDUSTRIES AND MOST REGIONS OF THE WORLD, THE GROWTH IN TENNESSEE EXPORTS WAS REMARKABLY WIDE-RANGING.**

Tennessee exports were up 15 percent in the first quarter of 2005. This is the sixth consecutive quarter of double-digit export growth. Foreign sales reached a record \$4.503 billion, a gain of more than \$500 million from a year ago. Perhaps the most remarkable achievement is that these figures were reached despite a massive drop in cotton sales. Cotton exports were off nearly \$400 million. That the state could shrug off these losses by adding close to a billion dollars in exports from other industries demonstrates just how good the state's export performance has been.

Most of the new exports went to NAFTA or Europe and were automobiles, computers, or medical equipment. Sales of cars, SUVs, and trucks exploded. Exports of passenger cars soared from \$52 to \$207 million, and exports of SUVs and pickup trucks climbed from \$10.5 to \$157.8 million. Canada was the major market, taking 56 percent of these sales. This accounted for two-thirds of Tennessee's export gains in Canada. Auto parts, heavy trucks, and computers accounted for most of the rest. With purchases by Canada up nearly 30 percent (to \$1.437 billion), that country now buys more than three times as much from Tennessee as does any other country.

More surprising is the other major market for the state's new automotive sales: the Gulf states of the Middle East. A year ago, there were virtually no exports of cars and trucks to the Middle East from Tennessee. But last quarter, the region purchased just under \$150 million worth of these vehicles. The United Arab Emirates was the largest buyer, at \$56 million, but significant exports also went to Kuwait, Oman, Bahrain, and Saudi Arabia.

Mexico, the other traditional destination of the state's automotive exports, did not increase its vehicle shipments. Nevertheless, other automotive goods (in particular auto body parts) along with computer peripherals produced a 15 percent gain in exports south of the border. Mexico also bought \$7.8 million in pen and pencil parts, making this the second fastest growing state export for the quarter.

The E.U. was once again a very good market for the state. Exports to the countries of the E.U. rose better than 20 percent (to \$910 million). Though Spain made very large auto parts purchases (\$43 million), most of these gains were not automotive-related. Medical instruments, whiskey, electrodiagnostic units, x-ray parts, catheters, and artificial joints were among the many products with robust sales to Europe.

This list of products certainly has a medical cast to it, and it reflects the recent sizable increases in the state's medical exports. Medical instruments, narrowly defined, are now Tennessee's fourth largest export sector. They were up by more than one-third last quarter (to \$153.8 million). But a broader definition of medical exports would also include many other medically related products, such as orthopedics (\$56.6), x-ray parts (\$33 million), needles and catheters (\$32 million), artificial joints (\$30 million),

and surgical catgut (\$12 million, and a new export this quarter), in all of which Tennessee has made great gains.

In fact, Japan's increased purchases of medical goods (from about \$20 to \$43 million) explain much of the strong gain made in that market. However, a number of other industries also increased their sales in Japan, an encouraging sign that the revival of its economy is beginning to result in increased export sales. The 30 percent gain in sales to Japan allowed that nation to regain its position as the state's fourth largest market.

The state's third largest market, China, did not fare as well. Exports to China fell from just under \$600 million to only \$212 million. The silver lining is that the drop was entirely due to one product, cotton. Other exports to China actually increased by 47 percent (\$94 to \$138 million). A good chunk of this was still textile related (artificial filament tow), but industrial chemicals and even large consumer purchases (e.g., motorboats and color TVs) also saw substantial gains in Chinese sales.

The rest of Asia, fortunately, did not follow the Chinese example. Whether to Korea, Taiwan, the ASEAN region, or South Asia, Tennessee exports were up quite strongly. Singapore was probably the star. Thanks to a huge purchase of gas turbines, Singapore became the state's eighth largest market (\$125 million, a 76 percent increase). Australia and Asia now account for half of the state's 10 largest export markets.

Latin America was the one region where significant export gains were not made. Exports there were off slightly (from \$268 to \$256 million). The drop would be even larger were it not for that strange export, charitable goods. Donated foodstuffs to Guatemala, the Dominican Republic, and Haiti accounted for about five percent of "exports" to Latin America. The state's problems were in Colombia and Brazil, where cotton shipments were down significantly and other industries could not take up the slack. As a result, sales to Colombia fell from \$28 to \$15 million, and sales to Brazil dropped from \$81 to \$63 million. If we could remove cotton, exports to both of these nations would actually be up a modest amount.

Among industry sectors, cotton was obviously the big loser for the quarter, but it was not entirely alone. While chemicals overall had a reasonable quarter, exports of pigments and plastics were both down. Several auto industries, including seating, oil and gas filters, and tires, saw declines. Video games and laser discs (not CDs!) experienced losses in what amounts to their only market, Canada. Line telephony equipment continued to lose sales as well. In dollar terms, though, outside of cotton the biggest losses were posted in the airplane parts sector, where exports dropped from \$112 to \$64 million. This substantial loss was global: the sector saw reduced sales everywhere except Great Britain.

The fact that all of the quarter's major losers can be summarized in a paragraph is perhaps the best evidence of how strong a quarter it was. Spanning most industries and regions of the world, the growth in Tennessee exports was remarkably wide-ranging. For the 17th month in a row, state exports grew faster than the nation's. ■

**Business and Economic Research Center**

P.O. Box 102  
Middle Tennessee State University  
Murfreesboro, TN 37132  
615-898-2610

**PORTS**  
*continued from page 2*

Canada. Unfortunately, this is quite a drop from the mid-'90s, when the port exported a million dollars a year. The port of Chattanooga imported \$346,002 in 2004. Overcoats were the leading import, followed by telephony and telecommunications equipment. Again, this is down substantially from the levels of the 1990s, although things appear to have bottomed out in 2002 (when the port imported just \$63,000), and imports have risen since.

The Tri-Cities airport has backed into the number-four spot among the state's ports, in spite of flat import shipments and a big loss of export trade since 2000. This port's trade appears heavily reliant on Siemens, the main user of the Tri-City FTZ and one of Tennessee's biggest firms. Almost all exports from the Tri-Cities are in the chemical sector. Their dollar value bounces around from year to year, presumably based on that firm's activities. After peaking at \$4.8 million in 1999, chemical exports fell to \$1 million last year. In both cases, chemicals amounted to well over 90 percent of the port's total activity. Imports to the Tri-Cities (\$391,000 in 2004) are strange indeed. The biggest import was cigarettes, and they came from China and Colombia! There's undoubtedly an interesting story there. The Tri-Cities is the only state port with a positive trade balance.

Looking forward, two state ports, Memphis and Nashville, appear in position to pick up substantial business

in the international trade sector. Chattanooga and Tri-Cities look to remain more as niche ports, serving specific needs of local exporting and importing firms, with Knoxville somewhere between these two poles. Tennessee ports are unlikely to ever become huge hubs of America's trade, but they are growing in size and economic importance. That a landlocked state has seen its ports more than triple in size over the past decade to become a multibillion-dollar operation is another sure sign of how deeply "globalized" the state has become. ■

