



# Global Commerce

Tennessee and the International Economy

## KOREAN FREE TRADE AGREEMENT?

### TENNESSEE'S STAKE

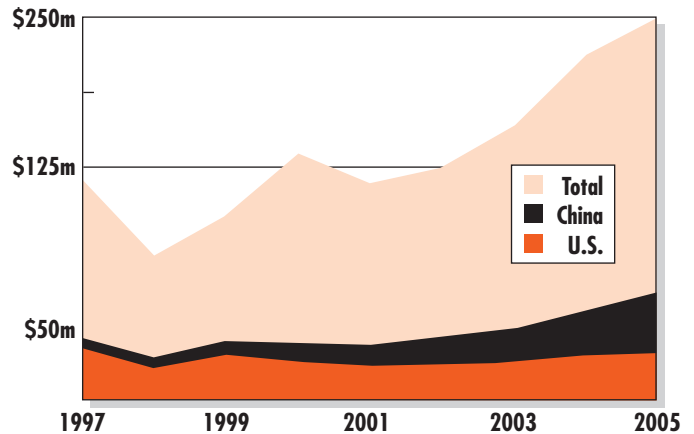
by Steven G. Livingston

On February 16, the United States announced that it was beginning negotiations with the Republic of Korea to establish a free trade agreement (FTA) between the two countries. If completed, this would rank second only to NAFTA in its impact on American trade and the U.S. economy. There are good reasons to expect this FTA to be very significant for the state of Tennessee.

The economy of South Korea is much larger and more sophisticated than most Americans think. It is today the 12th largest economy in the world, the world's fifth largest producer of cars, and one of four countries in the world that exports more than \$100 billion of electronics and high tech products each year. Korea is a trading powerhouse. It exports \$5,252 worth of goods and services per every Korean. Compare this to the United States, which exports \$4,294 of goods and services per every American. The two countries are already highly interconnected. Seventeen percent of Korean foreign shipments go to the U.S., and Korea is the seventh largest market for U.S. exporters. Thirteen percent of all Korean imports come from the U.S., placing us just behind Japan and China.

The recent rapid growth of Chinese trade with Korea is one good reason why the U.S. is seeking an FTA now.

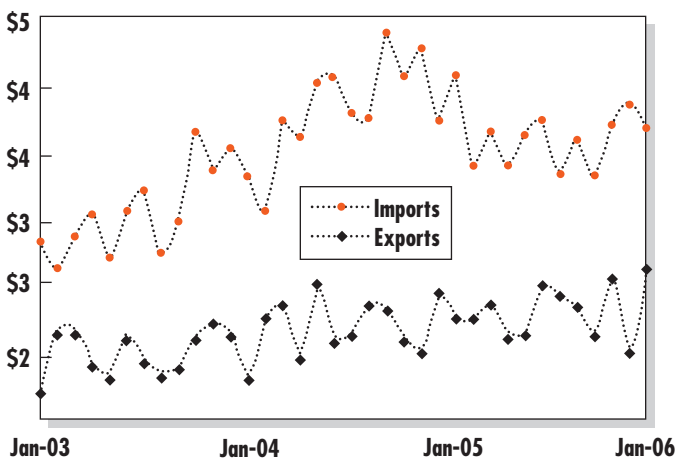
Korean Import Growth, 1997–2005



Another reason is that Korea opened FTA negotiations with Canada this past July. Currently Korea has an FTA only with Chile, but it has expressed interest in forming them with other countries. Korean manufacturing tariffs are typically in the range of eight percent. Were Canada or other nations to sign an FTA with Korea, a price advantage of that size would substantially help their manufacturers and become a significant problem for their American competitors. We can expect significant difficulties in the negotiations ahead, particularly over the sensitive issues of cinema quotas, beef imports, and agricultural goods, not to mention the potential reaction to an agreement in the American Congress (though several opponents of the recent FTA with Central America have announced their support for the negotiations). But in a world of multiplying FTAs, it may make sense to sign one with a trading partner that is the home of \$4.7 billion of American direct investment.

In 2005, the U.S. sold \$26.7 billion of goods in Korea. As with most countries, American trade is in substantial deficit, since Korea exported \$43.8 to this country. Thanks to the disastrous Korean economic collapse in the late 1990s, American exports are only now regaining the dollar levels of 10 years ago. However, they have been growing at a solid 6–8 percent per year for the past several years. American exports are widely distributed but are led by high-tech electronics, machinery, and instruments along with chemicals and airplanes. These products make up more than half of the exports to Korea. The American semiconductor industry has already announced that it expects to make significant gains under an FTA, while the U.S. government and outside experts have focused upon

U.S. Monthly Trade with Korea (in \$ billions)



continued on page 2

# KOREA

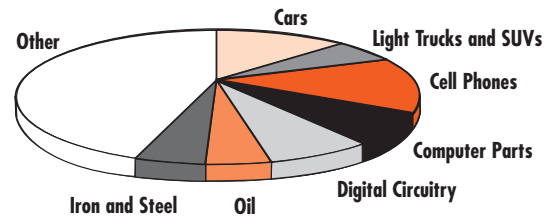
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chemicals, cars, machinery, medical products, and some agricultural sectors as the likely beneficiaries of an agreement. Earlier studies have suggested that American exports to Korea could rise in the neighborhood of \$20 billion.

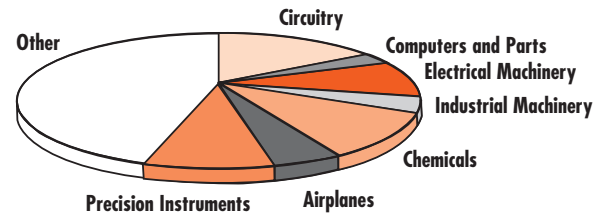
America buys a wide assortment of goods from Korea. However, the automotive sector stands out. Forty percent of Korea's exports in this industry go to the U.S., making it the fifth largest source of American automotive imports. Various electronics, computers, and parts join basic metals, plastics, and chemicals as the other large Korean exports to America. Korean researchers believe that an FTA will increase exports of their cars and electronics products. Both the American government and the Korean researchers believe that the FTA would help Korean textile and apparel exporters, but it's hard to believe this prediction given the intense competition from China in these industries.

What about Tennessee? In percentage terms, Korea is a smaller market for this state than for America as a whole. However, it has grown fairly rapidly over the past decade, again with a blip during its meltdown in the late 1990s. Last year, the state exported just under \$400 million of

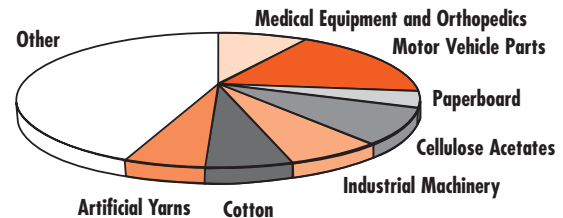
## What America Buys



## What America Sells

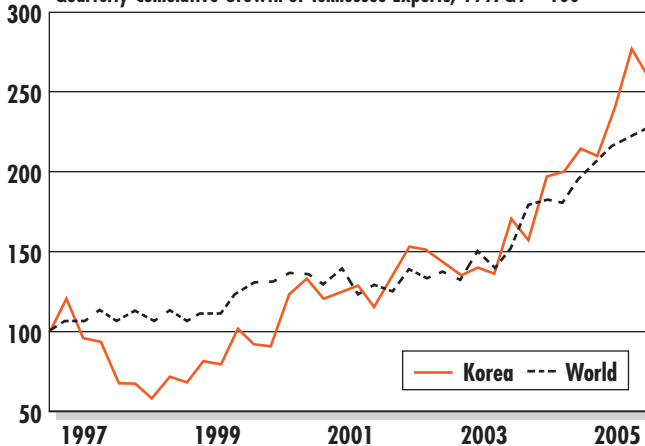


## What Tennessee Sells



## Comparing Export Growth: Korea versus the World\*

\*Quarterly Cumulative Growth of Tennessee Exports, 1997Q1 = 100



## Winners? Tennessee Exporters in Dynamic Korean Import Sectors

	World Exports*	Exports to Korea*	Korea's Imports*
Plastics**	\$694,313	\$7,234	\$5,311,408
Organic Chemicals	\$411,13	\$7,591	\$8,477,068
Aluminum Plates > .2mm thick	\$250,065	\$358	\$239,937
Motorboats	\$128,911	\$257	\$3,812
Artificial Joints and Parts	\$123,275	\$4,176	\$61,298
Computer Parts	\$105,159	\$2,695	\$2,718,060
Taps, Cocks, and Valves	\$97,728	\$1,689	\$1,116,077
Ball Bearings	\$48,759	\$8,358	\$270,821

\* All figures in \$1,000. \*\* = excluding cellulose acetates.

goods to Korea. As with the U.S., Tennessee's exports are quite diverse, but the largest sectors are the auto parts industry, medical products, petrochemicals, and industrial machinery. The state also sells a sizable amount of cotton. Since the Korean tariff on cotton is only 1 percent, this product will probably be unaffected by the negotiations.

The Tennessee and South Korean economies are in many respects very similar. Both are centered on the automotive, chemical, industrial machinery, and electronics sectors. With a few exceptions, a brief scan of South Korea's exports by industry reveals a profile eerily similar to Tennessee! This makes the impact of the FTA on this state very intriguing and potentially very important. With the exception of cotton and medical products, all of the state's largest export sectors are also vibrant industries in Korea. Tennessee and South Korean firms are global rivals as well as each other's suppliers. As an example, take the organic chemical terephthalic acid. Both Tennessee and South Korea are major exporters, and they compete head to head around the world. It's difficult to know which side, if any, is the net gainer from an FTA, particularly since so much of the competition is in third markets. Similarly, the Korean auto industry could compete more effectively against Tennessee auto plants if America's 2.5 percent tariff on Korean cars were dropped. However, the major exporter, Hyundai, could also just shift more production to Alabama, making

continued on page 6

4th Quarter 2005

MISCELLANEOUS  
MOSTLY MEANS  
MEDICAL.



### Tennessee's Largest Export Sectors

	Exports	Change from Last Year	Change from Last Quarter
Transportation Equipment	\$1,085,317,496	11.6%	7.1%
Computer and Electronic Products	\$837,618,705	31.1%	18.3%
Chemicals	\$618,409,564	4.9%	-1.4%
Miscellaneous Manufactured Goods	\$463,285,104	47.0%	22.9%
Nonelectrical Machinery	\$357,191,527	-1.6%	3.2%
Agriculture	\$296,878,730	33.0%	-42.6%

4th Quarter 2005

SALES OF AIRCRAFT  
PARTS EXPLAIN  
LUXEMBOURG'S  
GROWTH.



### Fastest-Changing Export Destinations

	Value of Exports	Gain	Decline
<b>COUNTRIES WITH THE GREATEST GROWTH</b>			
Luxembourg	\$14,912,588	1,577.8%	
Algeria	\$4,578,860	781.0%	
Oman	\$3,236,223	691.2%	
Qatar	\$11,373,029	581.0%	
Bahrain	\$5,569,379	310.1%	
<b>COUNTRIES WITH THE GREATEST DECLINE</b>			
Singapore	\$46,350,885		-47.1%
Jamaica	\$3,594,492		-44.8%
Portugal	\$7,045,796		-40.4%
Thailand	\$25,273,626		-34.5%
Indonesia	\$29,100,445		-27.2%

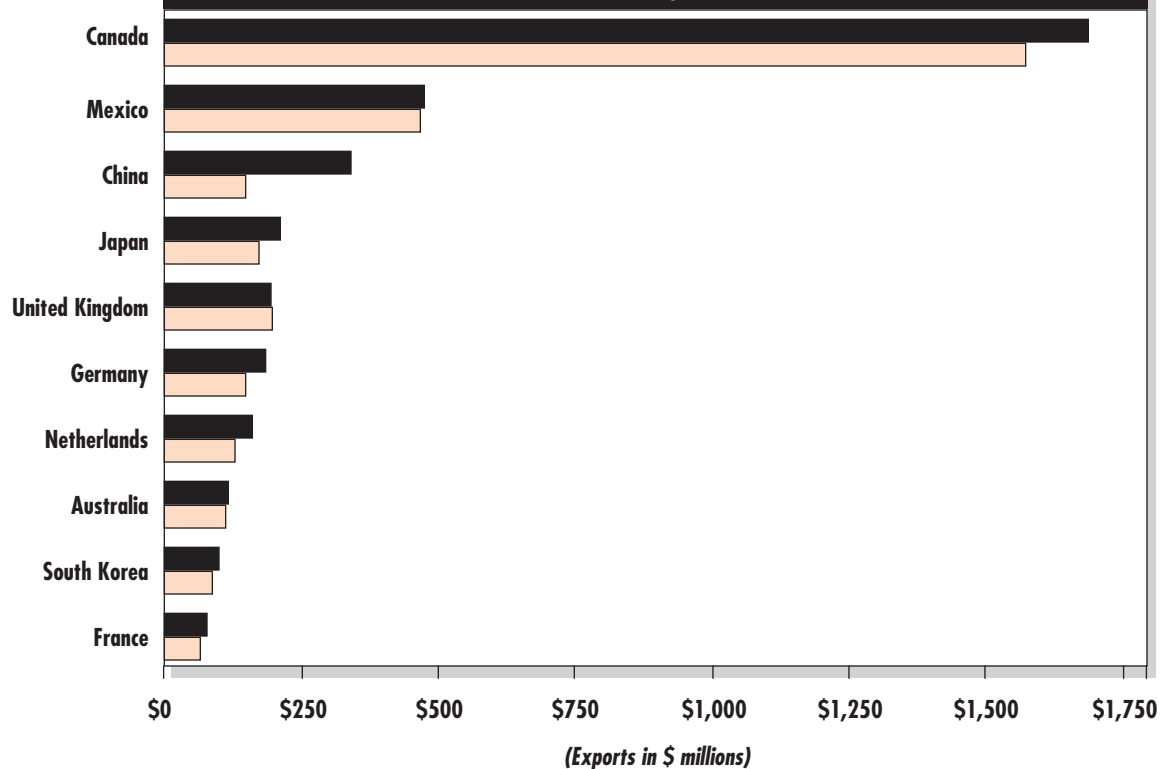
(Among countries averaging more than \$2 million in sales per quarter)

■ 4th Quarter 2005  
■ 4th Quarter 2004

THE CANADIAN  
MARKET IS NOW  
THREE TIMES LARGER  
THAN ANY OTHER.

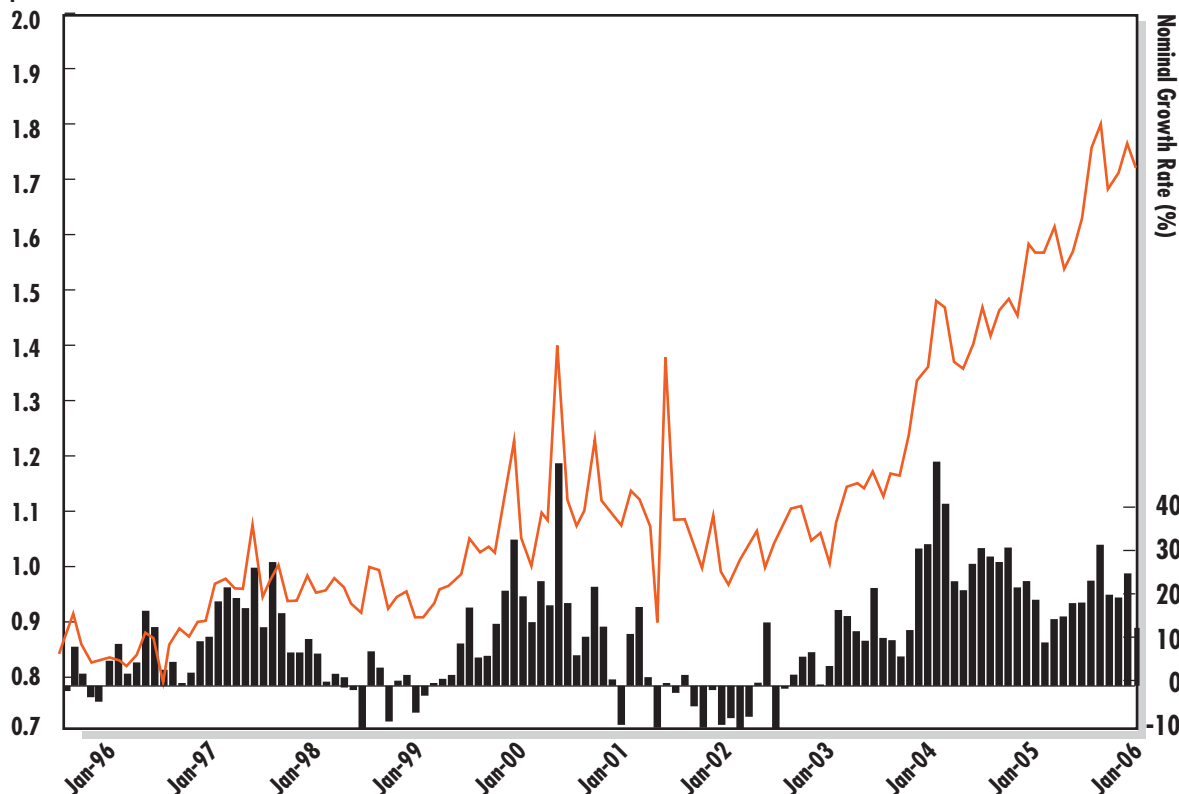


### Tennessee's Leading Trade Partners



## Tennessee Monthly Exports

Exports in \$ Billions



(Seasonally adjusted, expressed in year 2000 dollars)

4th Quarter 2005

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

	Value of Exports	Growth	Decline
<b>SECTORS WITH THE GREATEST GROWTH</b>			
Acetic Anhydride	\$9,472,774	**	
Sterile Surgical Catgut	\$45,391,536	15,660.7%	
Coated Paperboard > 150 g/m <sup>2</sup>	\$9,472,774	1,038.7%	
Aircraft Parts	\$23,085,335	936.5%	
Commercial Pickup Trucks	\$19,153,230	315.1%	
<b>SECTORS WITH THE GREATEST DECLINE</b>			
Rolling Machine Cylinders	\$13,713		-99.9%
Peptones and Derivatives; Hide Powder	\$3,642,230		-86.9%
Helicopters > 2,000 kg	\$1,648,200		-78.9%
Laser Discs (for reading systems)	\$17,556,151		-65.8%
Esters of Methacrylic Acid	\$10,748,171		-65.0%

\*Among Tennessee's top 100 exported goods. \*\* = No exports in fourth quarter 2004

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**MIDDLE  
TENNESSEE**  
STATE UNIVERSITY

**FOR 26 MONTHS IN A ROW, STATE EXPORT GROWTH HAS EXCEEDED THAT OF THE NATION.**

Can good news get monotonous? Yet another strong quarter completed a very successful year for Tennessee exporters. At \$4.982 billion, Tennessee's foreign sales grew 16.5 percent in the fourth quarter of 2005. The state appears poised to break the \$5 billion mark within the next quarter or two (it broke \$4 billion in the second quarter of 2004). Total 2005 exports were valued at \$19.07 billion, an 18 percent gain from a year ago. If only medical instruments began with a "c"! That sector joins cotton, cars, and computers as the primary reasons for this very strong performance.

These four sectors accounted for almost one-third of the state's fourth-quarter exports. Cars were the largest single exported good. At \$298 million, sales were up 87 percent from last year. While exports were up \$10 million to Canada, the big story continues to be the astounding rise in exports to the Middle East. In 2004, Tennessee exported virtually no vehicles to the Middle East. But in the fourth quarter alone, the state shipped \$171 million worth of cars to that region. By December, sales to the Middle East were outstripping those to Canada! The huge increase in car sales was more than enough for the industry to shrug off a modest decline in light truck and SUV exports to Canada.

Cotton sales were second only to automobiles and grew even faster. The state increased the value of its cotton shipments by more than 30 percent for the quarter (to \$283 million). Some of this growth was to Turkey and the Central American nations, but the vast majority was to China. Cotton exports to China rose from \$36 to \$163 million in this past quarter and accounted for nearly half of the state's sales in that market.

Combined sales of laptops, PCs, and computer parts stood at \$328 million. More than two-thirds of these sales were to Canada. Laptop sales continued their fast growth, up 49 percent for the quarter. Almost all of these shipments were to Canada and Malaysia (the home of a Dell supplier). Computer parts also grew rapidly with Ireland joining Canada as the major markets.

Medical instrument sales soared virtually around the world. Although Europe accounted for 60 percent of the increased exports (with Italy and Germany leading the way), there were large gains in Japan, Australia, China, and Canada as well. The health sector has become one of Tennessee's biggest export industries. In addition to medical instruments (\$50 million), the state was a large exporter of orthopedics (\$69 million), artificial joints and limbs (\$35 million), x-ray equipment (\$37 million), needles and catheters (\$35 million), and surgical catgut (\$45 million). Total state health care exports exceeded \$375 million for the quarter. The ascent of surgical catgut was perhaps the most impressive of all of these products, as its foreign sales grew an astounding 15,661 percent.

The state's gains, however, were not limited to these four industries. Aluminum plating sales grew 120 percent thanks to gains in Mexico and the Middle East. Two

chemical products, cellulose acetates and acetic anhydride, also posted major increases. Fortunately, only a very few sectors actually lost sales in the fourth quarter. By far the biggest loss in value was the \$40 million decline in airplane parts (the very similar industry of *aircraft* parts, however, had a very good quarter with its exports up about \$20 million). But the largest percentage losses were in the foreign sales of peptones and rolling machine cylinders. Exports of the latter fell virtually to zero due to the lack of purchases in Belgium, its major market. The sales of peptones declined worldwide, dropping from \$28 to \$4 million. Finally, the fickleness of the world of high technology was demonstrated by the different trajectories of video games, up \$37 million, and laser discs (not music CDs), down \$34 million. Both are products exported almost entirely to Canada.

Geographically, the huge growth in exports to the Middle East and China stands out. Exports to the Middle East rose from \$83 to \$273 million. As noted, two products, cars and aluminum plating, account for almost all of this. China more than doubled its purchases of Tennessee products (from \$150 to \$347 million). Half of this was cotton, but there were large increases in a great many products exported to China; everything from television equipment to chemicals made large gains as China cemented its position as the state's third largest market.

**... THE HUGE GROWTH IN EXPORTS TO THE MIDDLE EAST AND CHINA STANDS OUT.**

The state also did well in its more mature markets. Another \$100 million was added to exports to Canada—a market now three times the size of Mexico, Tennessee's second largest—and to the EU as well. Half of the EU gain was in the medical sector. Only Portugal bucked the European trend, as a decline in turbojet sales led to a large drop in its purchases. In percentage terms, Japan and South Korea turned in even better numbers. Sales to Japan grew from \$175 to \$217 million. More than half of this was due to medical equipment exports. Korea grew from \$88 to \$107 million. Here cellulose acetates and paperboard led the way. The Australian market grew just under nine percent (to \$120 million), almost entirely due to increased medical related sales. Mexico reported more modest numbers. A large drop in auto parts and SUV shipments almost offset gains elsewhere, and the state had to settle for a two percent gain (to \$479 million). The state increased its exports to Latin America by 11.5 percent, in spite of little or no growth in Brazil and Argentina, its two largest markets there. Chemical and paperboard sales, particularly to Colombia and Venezuela, were in large part responsible.

One region of the globe did, however, post disappointing numbers. Tennessee exports to Southeast Asia fell from \$210 to \$162 million, or 23 percent. Though Malaysian purchases rose, rather steep declines in sales to Thailand (cotton), Indonesia (cotton and chemicals), and especially Singapore (machinery, computers, and turbojets) made for a poor quarter among the ASEAN nations.

*continued on page 6*

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**KOREA**  
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the FTA irrelevant. As we drill deeper, we do see some sectoral differences. Tennessee’s plastics exports, for example, are concentrated in cellulose acetates, polyethylene, and polyesters, while Korea’s are widely distributed across many products, with cellulose not being very important. But the point is that Tennessee and South Korea do have rather similar industrial profiles, and the details of the FTA could be very important to this state.

That said, can we identify any likely Tennessee winners from an FTA? A few possibilities are suggested in the table (page 2). These are industries where Korean global imports have doubled in the past five years and Tennessee is a major global exporter already shipping to Korea. The list is not exhaustive and excludes products already listed in the pie chart of the state’s major export industries. Obviously, it does not include Korean industries in which surging demand might create an opportunity for a new Tennessee exporter.

A U.S.-Korean FTA would be significant in its impact. Proponents have argued that it could add more than \$30 billion to America’s GDP. Given the broad similarity between Tennessee’s and Korea’s industrial profiles, it will likely provide substantial opportunities but also heightened competition for many firms in this state. ■

**INTERNATIONAL**  
*continued from page 5*

The rise of the state’s medical groups sector and the continued vitality of its traditional large export industries have combined to give Tennessee some of the healthiest export numbers in the nation. For 26 months in a row, state export growth has exceeded that of the nation. ■

