

## Globalization at the Local Level

*How Internationalized is Midstate Tennessee?*

by Steven G. Livingston

Globalization is reshaping the American economy. But how far has it advanced locally? How “globalized” are the economies of this region?

We recently studied the internationalization of the Nashville metro area. We found a region with extensive links to the global economy but one that also still lags behind most of the United States in its international focus.

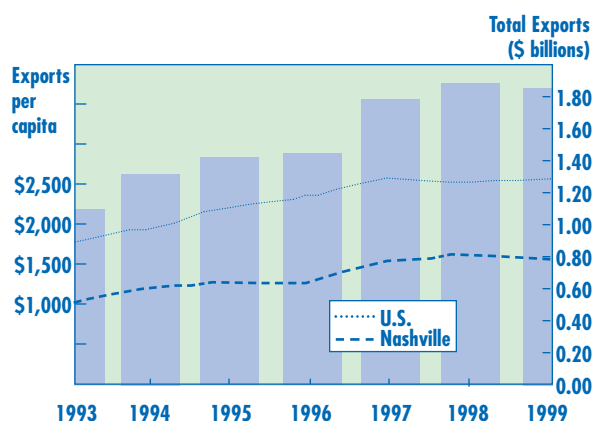
### Exports

The Nashville metro area exports nearly \$2 billion in goods each year, a little less than one-fifth of all Tennessee state exports. This is about five percent of Nashville’s total economic output, and about nine percent of its manufacturing output. By way of comparison, the dollar value of exports is roughly similar to the total combined receipts generated by the area’s hotels and restaurants.

Two hundred seventy-five manufacturing plants and distributors report that they regularly export. They are joined by 40 wholesalers. These firms employ a little more than 37 percent of the total manufacturing and distribution workforce.

Table 1 examines in more detail the industry composition of Nashville-area exports. It ranks midstate industrial sectors by the percentage of regional employment in each sector. It indicates how many firms in each sector are exporting, the percentage of total firms exporting, and the percentage of employment found in

Figure 1. Nashville MSA\* Export Performance



\*Metropolitan Statistical Area

The Nashville metro area has extensive links to the global economy but still lags behind most of the country in the extent of its international focus.

Table 1. Export Intensity: Export Involvement by Industry  
(Industries ranked by total midstate employment)

	# of firms	% of Firms	% of Employment
Transportation Equipment	21	33.87%	52.41%
Distributors and Others	23	6.32%	22.83%
Fabricated Metals	35	13.36%	29.78%
Electrical Equipment	14	32.56%	62.05%
Machinery	29	19.33%	52.71%
Printing	18	6.10%	12.88%
Plastics and Rubber	14	20.00%	24.35%
Food Industry	7	12.07%	13.38%
Nonmetallic Minerals	7	10.29%	11.81%
Computer and Electronics	11	19.64%	25.33%
Wood Product	6	8.70%	34.15%
Chemicals	13	19.12%	55.27%
Furniture	9	15.52%	61.03%
Miscellaneous	16	10.46%	35.77%
Primary Metals	7	33.33%	45.35%
Paper	7	19.44%	25.30%
Textile Mills	3	27.27%	77.72%
Textile Product Mills	8	23.53%	45.62%
Leather	4	50.00%	75.64%
Beverage and Tobacco	1	7.14%	37.65%
Apparel	6	42.86%	76.14%
Petroleum	1	8.33%	3.09%

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# Globalization

*continued from front*

exporting firms.

Exporting firms are clustered in a relatively small number of industries. The transportation, electrical equipment, and industrial machinery industries stand out in their reliance on exports. However, in eight of the 22 largest industries, more than half of employment is in establishments that export.

The economic impact of local exporting is substantial. It is generally accepted that one dollar in exports generates \$1.30 in income in other economic sectors and that one billion dollars in direct exports supports an additional 10,000 to 20,000 jobs. This general rule suggests that midstate exports have a total economic impact of around \$5.25 billion. Export figures actually understate the impact of international trade because they do not include so-called “indirect” exports. These are components made and sold to other firms that incorporate them into products that are exported. About 25,000 additional jobs created are due to indirect exports.

How do these figures compare to other parts of the United States? Here the news is not good. “The New Economy Index,” compiled by the Progressive Policy Institute, gives Nashville a lower “globalization” score than almost any other rated metropolitan area. This is because the region is 44th among the 50 surveyed metro areas in its manufacturing export sales per manufacturing worker. Nashville ranks 38th among U.S. metro areas in its population, but only 64th in the dollar value of its exports. If Nashville area firms exported at the national rate, regional exports would be more than a billion dollars higher. In other words, the Nashville area is sacrificing an economic impact of about \$1.36 billion.

## Foreign Direct Investment

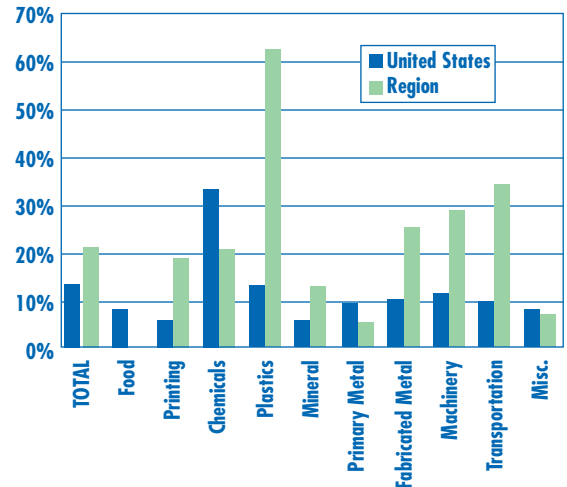
A second important impact of globalization is the integration of production and services across national boundaries. Foreign firms are increasingly establishing or acquiring operations in the United States. Midstate Tennessee may be “underglobalized” in its exporting but the same cannot be said for its hosting of foreign-owned businesses. In fact, the region’s economy is more dependent upon foreign direct investment than almost anywhere else in the United States. Nashville, which ranks 21st among all U.S. metro areas in its number of domestic business establishments, ranks seventh in its number of

foreign-owned establishments. One-fifth of all manufacturing jobs are in these establishments. More than 10 percent of the firms in six mid-state industrial sectors are foreign-owned, and in two, the primary metal and chemical industries, more than 20 percent are foreign-owned.

There are 170 foreign-owned establishments in the region. Ninety-six are manufacturing plants. The remainder includes processing and distribution centers (21 establishments), services (28), and retail sales (11). More than 27,000 workers are employed by foreign-owned firms. The percentage of the total workforce employed in foreign-owned firms well exceeds that of the nation. In five industrial sectors, more than one-fifth of the workforce is employed in foreign-owned plants.

**Figure 2. Percent of Workers in Foreign-Owned Firms**

*(Top 10 industrial sectors, by employment)*



## Imports

Imports constitute the third leg of globalization. About five percent of manufacturers in the region indicate they directly import. The transportation and industrial machinery industries report the largest number of local importing establishments.

American imports that can be assigned to the Nashville region are estimated at some \$6.6 billion. As in virtually all other areas of the United States, midstate Tennessee imports substantially more than it exports. Several industrial sectors appear to have a positive trade balance, however. These include food processing, printing, and industrial machinery.

More than one-third of the region’s estimated imports are in the transportation sector.

**Midstate Tennessee’s economy is more dependent upon foreign direct investment than almost anywhere else in the United States.**

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## 3rd Quarter 2002

Automotive exports remain a bright spot.

## 3rd Quarter 2002

Telecommunications exports were off dramatically.

Australia posted the best export growth among the state's largest markets.

## Tennessee's Largest Export Sectors

	Exports	Change from Last Year	Change from Last Quarter
Transportation Equipment	\$712,847,323	17.2%	-9.1%
Chemicals	\$411,127,177	43.6%	-2.9%
Computer and Electronic Products	\$321,248,121	-23.7%	2.5%
Non-Electrical Machinery	\$289,866,342	8.2%	-12.6%
Agriculture	\$149,998,950	4.0%	15.5%
Miscellaneous Manufactured Goods	\$133,243,600	20.9%	-2.4%

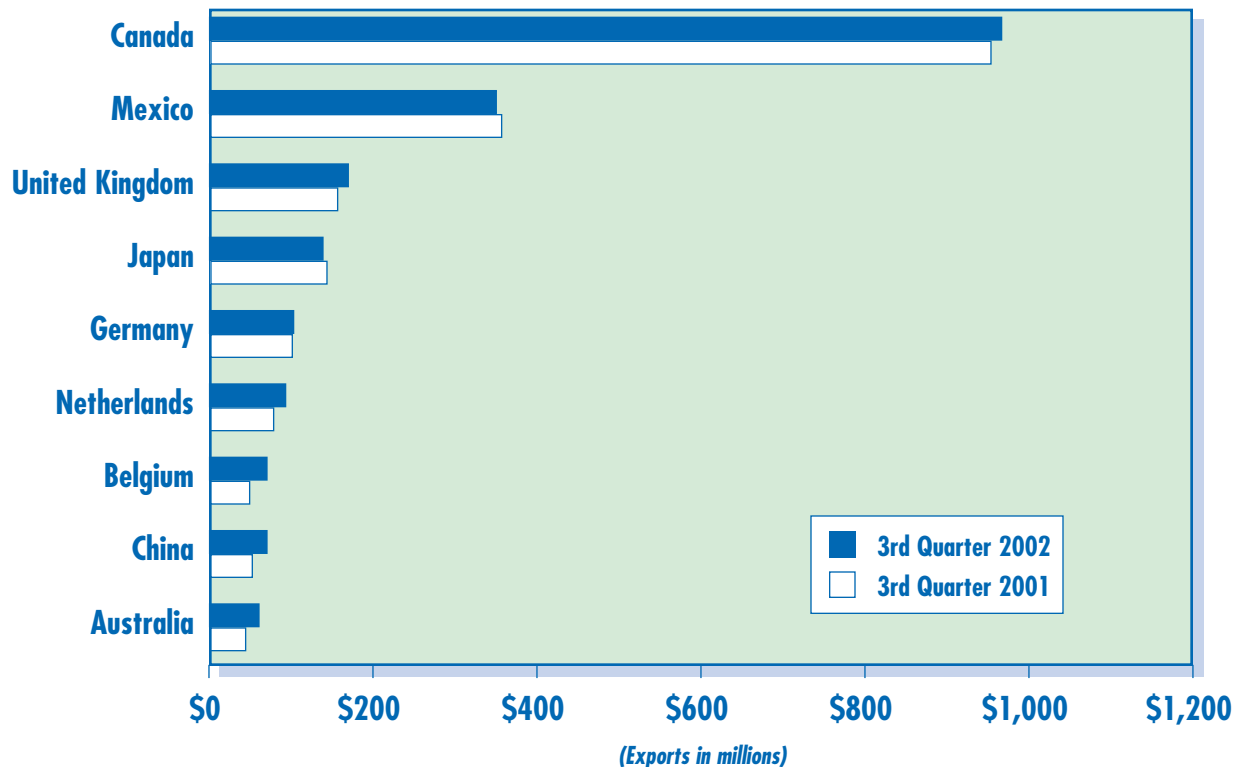
## What's Hot and What's Not

(among Tennessee's top 100 exported goods)

	Value of Exports	Growth	Decline
<b>PRODUCTS WITH THE GREATEST GROWTH</b>			
Airplanes	\$15,500,000	*	
Video Games	\$17,481,474	15,209.8%	
Chemical Woodpulp	\$9,875,265	1,166.8%	
Stamping, Processing, or Punching tools	\$3,459,354	1,127.3%	
Harvester and Mower Parts	\$6,204,673	1,087.3%	
<b>PRODUCTS WITH THE GREATEST DECLINE</b>			
Electronic Calculators	\$4,912,191		-88.2%
Tobacco	\$1,230,107		-76.8%
Apparatus for Telephony Lines	\$35,332,819		-70.4%
Car Engines	\$6,403,539		-54.0%
Refrigeration Compressors	\$3,087,417		-53.1%

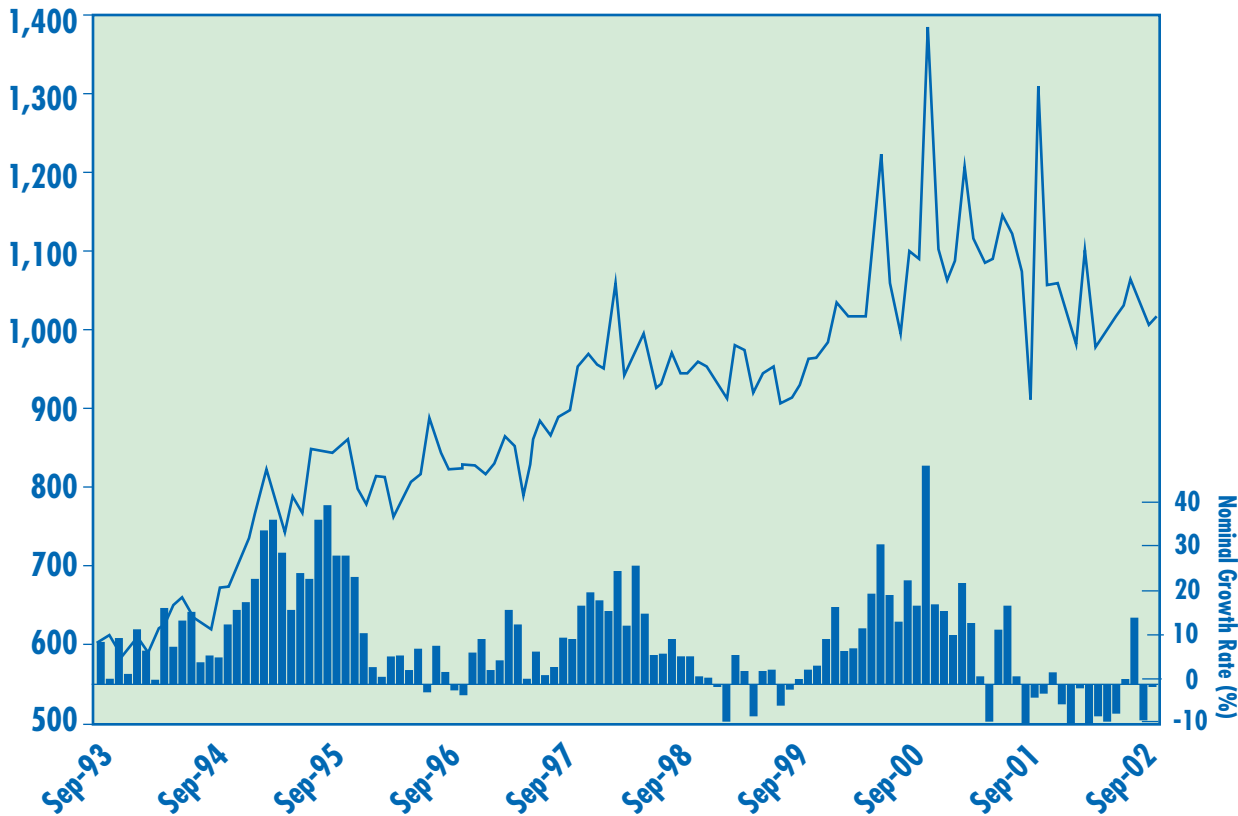
\* Not exported last year

## Tennessee's Leading Trade Partners



# Tennessee's Monthly Exports

Exports in \$ Millions



(Seasonally adjusted, expressed in 2000 dollars)

3rd Quarter 2002

## GlobalCommerce

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## Fastest Changing Export Destinations

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

	Value of Exports	Gain	Decline
<b>COUNTRIES WITH THE GREATEST GROWTH</b>			
Pakistan	\$2,518,505	167.1%	
Honduras	\$14,680,511	131.8%	
Thailand	\$19,864,190	82.2%	
Chile	\$16,428,347	81.6%	
Switzerland	\$16,081,798	73.2%	
<b>COUNTRIES WITH THE GREATEST DECLINE</b>			
Egypt	\$2,971,933		-60.3%
Austria	\$3,326,131		-58.6%
El Salvador	\$3,600,339		-52.2%
India	\$17,147,015		-42.9%
United Arab Emirates	\$8,240,715		-29.1%

# Tennessee International Trade Report

**The third quarter of 2002 broke a string of five consecutive quarters of flat or declining export sales.**

Finally there is some good news. At \$2.89 billion, Tennessee exports grew eight percent in the third quarter of 2002. This breaks a string of five consecutive quarters of flat or declining export sales. The news is tempered, however, by the fact that exports actually fell in both August and September, and they are still below the numbers of the year 2000.

As has been the case recently, the transportation sector accounts for most of the state's positive numbers. Transportation exports grew more than \$100 million this past quarter (17%). This was primarily due to large increases in car exports to Canada (up \$41 million) and Mexico (\$17.2 million). But auto parts sales were also strong in markets as varied as Japan, Brazil, and Australia.

The chemical industry also turned in some very good numbers, although its 44% increase in sales (\$411 million) isn't quite as good as it looks. The third quarter of last year was one of the worst ever for Tennessee chemical manufacturers. We are thus mostly seeing a return to historical averages here. Nevertheless, chemical exports rose in nearly all markets. The plastics and rubber industry also posted solid numbers. Thanks in large part to tire exports in the North American Free Trade Agreement (NAFTA) market, this sector gained an additional \$20 million in foreign sales this past quarter (to \$127 million). The final sector with impressive gains was the catch-all category of miscellaneous manufacturing. About a third of this sector's exports go to Canada, and a \$19 million increase in exports to that country accounts for most of an overall 19% increase in its foreign sales.

The nonelectrical machinery sector, now

Tennessee's fourth largest export sector, grew about 8% last quarter (\$290 million). But this hides a very uneven performance. The gain was mostly due to a 15% increase in sales in Canada of largely automotive-related machinery. Elsewhere, the sector was generally down.

By far the most disappointing sector was the computer and electronics industry. It lost nearly \$100 million in foreign sales, almost a quarter of its total dollar value of exports. The continuing decline of the telecommunications industry is the biggest factor behind this poor performance. Telephony equipment exports to Canada alone were down \$100 million for the quarter.

Electronic circuitry sales were lucky to hold their own, while computer and office equipment exports actually made minor gains due to good numbers in Australia, Canada, the Netherlands, and the U.K.

The fabricated metals industry took another hit (down \$17 million, to \$79 million). Though NAFTA market sales were up a bit, heavy losses were sustained in the rest of the world. Textile exports (\$39 million) were flat, while apparels (\$26 million) actually gained a small amount for the quarter.

Cotton exports were up slightly (5%, to \$151 million), shrugging off a large loss in India with increases throughout East Asia and Central America. One of the deepest losses, though, was the 42% drop suffered by the state's tobacco industry. The Netherlands, Turkey, and Korea were among the markets where Tennessee tobacco sales were off dramatically.

Overall, Europe was the best performing market for Tennessee exporters this past quarter. Led by the electrical machinery and plastics industries, sales to Europe increased more than 13%, to \$628 million. Latin America performed surprisingly well. A surge in chemical sales to Argentina was the leading edge of a 28% gain in exports to that continent. With the notable exception of Japan, where exports were flat, East Asia was also a good market for Tennessee exporters during the third quarter. At \$153.9 million, Association of Southeast Asian Nations (ASEAN) exports were up by a third, and exports to China grew 42%, to \$74 million. However, in the state's largest market, NAFTA, export sales only held their own for the quarter. Sales to Canada were up 2%, to \$965 million, while exports to Mexico dropped a little more than \$3 million, to \$352 million.

In the context of a sluggish global economy, Tennessee exporters performed as well as could be expected. As long as export growth is lodged primarily in one sector, however, there are reasons to remain concerned about the state's overall performance in foreign markets. ■

## Tennessee Trade-Weighted Dollar Index





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## Imports

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**The Nashville region still exports less than its population or economic size warrants.**

As much as \$2 billion of that industry's \$2.514 billion in imports, however, is likely intra-firm. This industry accounts for almost one-half of the region's trade imbalance.

Imports equal about seven percent of the region's total economic activity. This suggests that imports have a significant but hardly overwhelming impact on local economic activity. However, in the manufacturing sector, this ratio rises to about 22 percent.

Is the impact of imports greater on the Nashville economy than in other areas of the United States? We analyze this by creating an import impact index that adjusts the size of imports to the size of the local economy (based upon employment patterns). If the United States is set at 100 on this index, the Nashville area registers 105. This indicates that the region's economy is slightly more affected by imports than is the nation generally. (By way of comparison, the state of Tennessee scores 137 on the index, suggesting that midstate Tennessee is

actually less affected by imports than is the rest of the state.)

## Conclusion

In a nutshell, the Nashville area is today deeply integrated into the world economy. It has attracted substantial international investment and has greatly increased both its exports and its number of exporting firms. Imports are sizable and play a significant role in the local economy.

Yet the Nashville region still exports less than its population or economic size warrants. Fewer local establishments are exporting than the national average. The pace of foreign direct investment has slowed, even as it has accelerated in other parts of the United States. These facts ought to be of concern. The region has used its many assets in comparison with other parts of the United States to achieve a remarkable record of recent economic growth. It must now do the same with regard to other parts of the world. ■