

**Trading Up: Five Years of Tennessee Exports**  
by Steven G. Livingston

The 1990s were predicted to be a decade of "globalization" for U.S. businesses. Tennessee's firms, at least, are following the script. Over 100 new firms have begun exporting since 1991, a ten percent increase. State exports have exploded, from just under \$5 billion in 1991 to over \$8.8 billion in 1995. In real terms, this is an increase of 58.7%, one of the most dramatic achieved by any American state. Let's examine Tennessee's export performance over the past five years. How have Tennessee's international trade patterns been changing? What does the future hold?

***Steady As She Grows***

While Tennessee's foreign sales have been increasing rapidly, the composition and destination of these exports are changing much more slowly. A look at the state's top ten markets shows tremendous stability over the past five years: nine of 1991's leaders remain at the top in 1995. The tenth, Taiwan, has only dropped to eleventh, replaced by China's rapidly growing market. Mexico is also rising, albeit more slowly, as a top market: it was briefly the state's number two export destination, a position it would undoubtedly have kept were it not for Tennessee's Top Ten Export Markets

	1991	1995
1	Canada	Canada
2	Japan	Japan
3	Germany	Mexico
4	Mexico	Germany
5	Netherlands	United Kingdom
6	United Kingdom	China
7	Hong Kong	Netherlands
8	France	France
9	South Korea	Hong Kong
10	Taiwan	South Korea

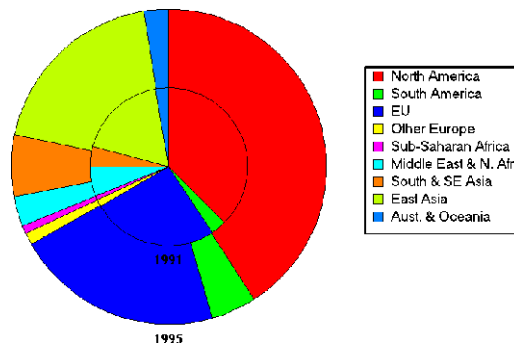
its economic collapse at the end of 1994. Of course some markets have expanded more rapidly than others, and more than a few in spectacular fashion. A listing of the state's fastest growing markets over the past five years (among those countries with more than \$5 million in 1991 sales) shows some incredible rates of growth. As with the other graphs discussed in this article, all figures are in real dollars. There doesn't seem to be any clear pattern to which countries turned in the best growth rates, although we might note that five of the ten

	95 Exports	Growth
Ghana*	\$9.4M	7129%
Bangladesh	\$6.7M	2385%
Pakistan*	\$52.1M	1450%
Bolivia	\$8.4M	931%
Former USSR	\$19.9M	267%
Kuwait	\$19.1M	263%
Uruguay*	\$10.5M	258%
Brazil	\$160.9M	254%
Colombia	\$31.1M	251%
El Salvador*	\$14.7M	243%

fastest growing markets were in Latin America. On the other hand, there are a few markets where exports have fallen over the past half-decade. Chart 3 lists all nine countries which, having taken at least \$5 million in Tennessee exports in 1991, have declined as markets through 1995. Scandinavian and Middle Eastern countries dominate this group. The former may primarily reflect shipping changes in the wake of the expansion of the European Union, while declines in the Middle East are certainly linked to the continuing low world oil prices that hurt consumption in that part of the

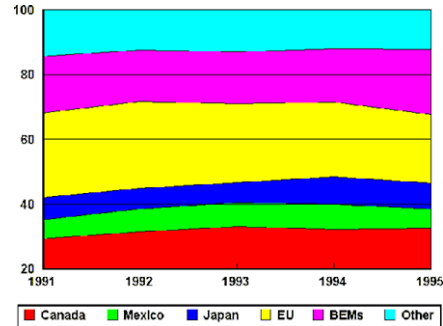
	95 Exports	Loss
Algeria	\$.056M	-95%
Portugal	\$4.3M	-66%
U.A.E.*	\$32.8M	-63%
Egypt	\$20.7M	-21%
Saudi Arabia	\$94.9M	-18%
Denmark	\$15.2M	-17%
Spain	\$49.8M	-16%
Finland	\$17M	-8%
Bahrain	\$3.3M	-3%

world. If we take a regional perspective, we again see no shocking changes in Tennessee's export profile. But we do see some emerging trends. Chart 4 looks at the evolution of the past five years. It reinforces the picture of the Middle East as a declining region for the state's

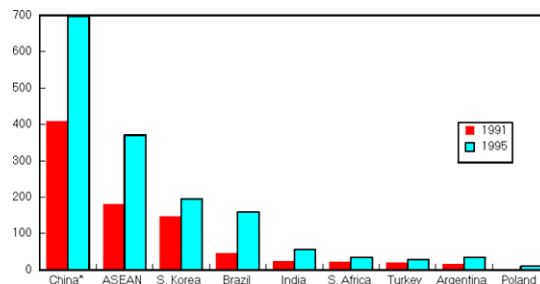


goods. More importantly, it shows a slow shift in the state's exports away from Europe and towards the Far East and the Americas. This may be the most portentous development of the past five years. Together, North and South America are now close to accounting for 50% of the state's exports.

In recent years NAFTA and the so-called emerging markets have attracted the lion's share of public attention about trade. Has either significantly changed Tennessee's trade picture? Chart 5 looks at the relative size of Canada, Mexico, and the Big Emerging Markets (BEMs) as destinations for the state's goods. Again, no radical changes are immediately apparent. But look again. Through 1993, the



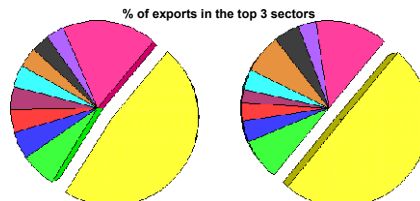
NAFTA market (Mexico and Canada) was clearly taking an increasing slice of the state's exports. The collapse of the Mexican economy stalled this trend, but probably only temporarily. Tennessee, already very reliant on North American markets, will likely increase its reliance in the coming years. The BEMs, so far, have had a smaller impact. Their percentage of Tennessee's exports has risen somewhat, but mostly because of growth in 1994-5. Chart 6 examines these markets individually. It shows all of the countries defined by the Commerce Department as BEMs, except for Mexico. Here is where we get a real sense of the coming importance of the Chinese export market (the Commerce Department defines Taiwan, Hong Kong, and China as together a single market: the "Chinese Regional Area."). This area is easily the largest of the BEMs for Tennessee exporters, and it is growing vigorously. Even taken separately, not only has China moved into the number six slot of the state's top markets, but Hong Kong, an entrepot for much of China's interior trade, resides at number nine, and Taiwan, as noted, is still number eleven. Southeast Asia (ASEAN) and Brazil are growing just as rapidly, while South Korea, already a pretty large market, has also grown strongly over the past five years. For most Tennessee exporters, the other BEMs, while often posting sizable increases in sales, still look to be, as the name says, "emerging."



"There's no friends like the old friends," Jimmie Rodgers once sang, and that really is the story of Tennessee's export markets thus far over the 1990s. The bulk of foreign sales continue to be the old reliables: Canada, Japan, the European Union, and Mexico. But looking a little deeper, we do observe a continuing diversification out of European markets and into the rest of the world, and the steady rise of some new friends especially in the Far East and Latin America.

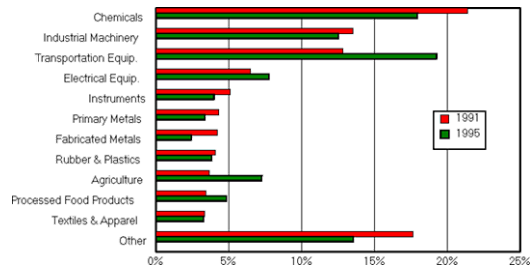
#### ***A Rising Tide Lifts all Boats...or is that Cars?***

The evolution of the composition of Tennessee exports over the 1990s is a similar story. Most products have been participating in the decade's robust expansion in foreign sales, but the state's major export sectors still dominate the picture. Three industries, chemicals, transportation equipment, and industrial machinery, have far outstripped all other Tennessee exports in recent years. Chart 7 shows that this is continuing through the first half of the 1990s. Indeed, the share of the "big three" keeps rising, and now constitutes virtually half

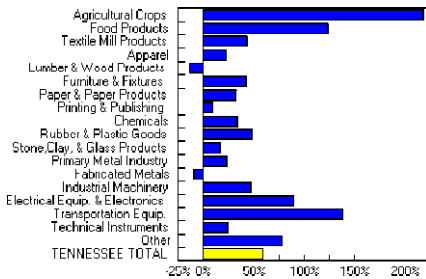


(49.75%) of the state's exports. So there has been a slow sectoral concentration of the state's exports. The state's smallest export industries are getting relatively smaller. Chart 8, which maps the changes in what Tennessee has been selling the world over the past five years, details this trend. The smaller export sectors ("other") today constitute about five percent less of the state's exports than they did in 1991. This is a bigger drop than any suffered by the state's larger exporting industries.

Chart 8 also reveals what may be the greatest change over the past five years: the huge increase in exports by the state's transportation equipment industry. In 1995 Tennessee's largest export industry, foreign sales have grown from \$638 million in 1991 to over \$1.7 billion in 1995. It now constitutes 19.26% of the state's exports, half again its size in 1991. Indeed, it is the growth of this industry which accounts for the continued dominance of the "big three," as it masks small relative declines in the chemical and industrial machinery sectors. The robust expansion of (mostly) automotive-related exports has done more to remake Tennessee's export profile than any other change of the past half-decade.



Though no other industry has achieved a one billion dollar increase in foreign sales over the last five years, most other Tennessee industries did turn in very strong export performances. Our last chart shows the export growth rates of the state's major industrial sectors.



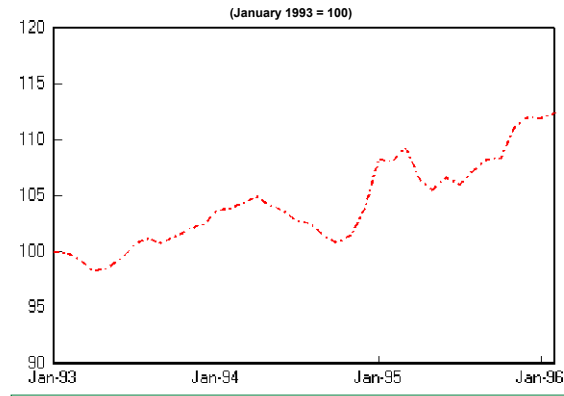
Agricultural crops and processed food exports have grown the fastest over the past five years, with crop exports exceeding 200%. (Actually several small sectors, metal and coal & lignite mining, achieved even higher growth rates, but they have also experienced some wild yearly fluctuations.) Again the transportation sector stands out, up some 138%, an amazing feat considering the large size of this industry. Only two of the largest 17 industries lumber and wood products, and fabricated metals have declined since 1991, evidence of the global competitiveness of Tennessee's economy generally.

#### A Promising Next Five Years

The past half-decade has been a remarkable period for Tennessee exporters. The state now routinely achieves levels of foreign sales unthinkable a few years ago. This brief survey shows that, for the most part, these export gains are not because of any dramatic changes in the state's export profile. There have been no radical breaks with the past. Yet recent trends do offer some glimpses of the future. Changes over the past five years paradoxically herald concentration as well as diversification in the state's trade. Concentration in North America and NAFTA, which continue to grab a larger share of Tennessee's exports, but diversification to new markets in East Asia and Latin America. Greater relative concentration of exports in the state's top export sectors, but increased levels of exports in almost all major industries. Perhaps most importantly, while no one can predict that the next five years will be as good as the last, the strongest trend is the continuing, dynamic growth of Tennessee exports, and the increasing importance of foreign sales to the state's economy.

## Tennessee Trade Weighted Dollar Index

Tennessee's trade-weighted dollar strengthened over the last quarter of 1995, continuing the general trend of the past several years. Only four of the twenty two currencies composing the index rose against the dollar; of the remaining eighteen, most fell modestly, but Japan's yen weakened almost five percent, while the Mexican peso continued to be the major problem: it fell nearly twenty percent over the quarter. As noted in the last issue of *Global Commerce*, changes in the value of this index have fairly accurately predicted changes in Tennessee's rate of export growth about six months ahead of time. Last quarter's rise in the dollar thus suggests a continuing slowdown in export growth through the middle of 1996. However the dollar index has now remained essentially flat for the past four months (the index in November was at 111.1, in February 112.3) which should begin to help exports in the latter part of the year.



## Tennessee International Trade Report 4th Quarter 1995

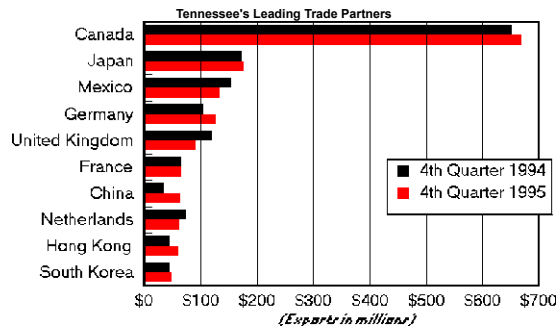
Tennessee's exports reached nearly \$2.12 billion in the fourth quarter of 1995, up some \$33 million from the previous quarter. This is a gain of just over 5% from the fourth quarter of 1994 and marks the first year the state's exports exceeded \$2 billion in every quarter. However, when adjusted for inflation, these figures indicate that export growth has decidedly flattened over the quarter.

Nevertheless, while few sectors experienced the spectacular growth of the first part of 1995, most industries showed healthy increases in foreign shipments. Six of the state's seven leading industries increased their sales over last year, though it was two relatively small industries, nonmetallic minerals and petroleum and coal products, which posted the biggest gains. On the other hand, both the textile and apparel industries' exports were off over 20%, suggesting the continuing strength of foreign competition in these sectors. Exports to Canada, the European Community, and Japan all grew modestly, but Mexico, Tennessee's fourth large market, continued its recent slide, with state exports there falling 13%. The rest of the world proved a mixed bag. Tennessee exports did very well in East and Southeast Asia, and in the "southern cone" of South America. Note that Chile's interest in joining the NAFTA was accompanied by a 70% increase in its imports from Tennessee. Yet sales to a number of other Latin America countries and throughout the Indian Subcontinent fell dramatically. Solid gains in exports were made to both Russia and South Africa, reversing recent trends in those markets.

Exports in 1996, however, are not off to a good start. Even after adjusting for a change in the Department of Commerce's reportage of reexport figures, January's exports are down about \$9 million (1.23 percent) from a year ago. This is the first such decline in several years.

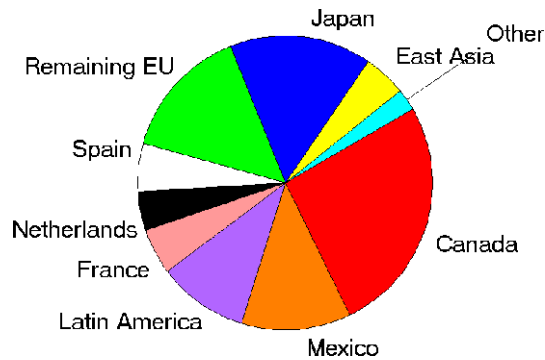
Tennessee's Largest Export Sectors - 4th Quarter 1995

	Exports	Change from Previous Quarter
Transportation Equipment	\$400,015,605	1.10%
Chemicals	\$356,861,320	-1.02%
Industrial Machinery	\$278,633,370	23.71%
Electronics, and Electrical Equip.	\$188,458,203	0.87%
Food and Food Products	\$128,046,178	13.69%
Agricultural Crops	\$116,793,588	14.96%
Paper and Allied Products	\$96,450,021	36.08%



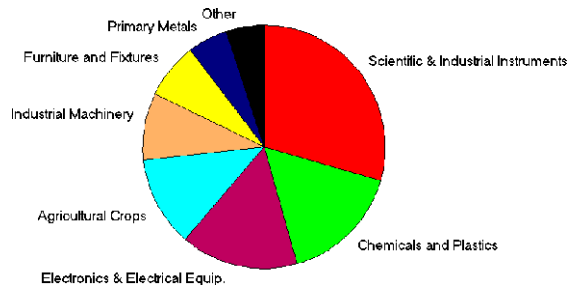
Tennessee's Exports of Paper and Allied Products

note: paper products turned in the best 4th quarter performance among the state's large export sectors



Tennessee's Exports to Poland

Poland was the fastest growing of all the state's markets this past quarter



Growth and Decline in Exports by Industry  
4th Quarter 1995

	Value of Exports	Growth%	Decline%
<b>Sectors with the Greatest Growth</b>			
Petroleum & Coal Products	\$4,027,584	326.20%	
Nonmetallic Minerals	\$6,772,344	75.60%	
Livestock	\$227,771	58.40%	
Coal & Lignite Mining	\$934,565	37.40%	
Paper & Allied Products	\$96,450,021	36.10%	
<b>Sectors with the Greatest Decline</b>			
Tobacco Manufactures	\$96,997		-94.20%
Metal Mining	\$21,109		-82.80%
Forestry	\$144,802		-72.10%
Textile Mill Products	\$29,516,214		-28.60%
Apparel	\$34,257,741		-21.40%

**Fastest Changing Export Destinations**  
4th Quarter 1996  
(among countries with more than \$2m in sales per quarter)

	Value of Exports	Gain %	Decline %
<b>Countries with the Greatest Growth</b>			
Poland	\$3,441,927	253.40%	
Philippines	\$14,661,968	170.20%	
El Salvador	\$5,420,695	148.60%	
Ghana	\$4,596,097	130.20%	
Denmark	\$3,527,642	94.20%	
<b>Countries with the Greatest Decline</b>			
Ethiopia	\$51,764		-97.60%
Vietnam	\$199,520		-84.70%
Uruguay	\$721,741		-72.40%
Romania	\$2,703,055		-64.30%
Sweden	\$13,908,290		-55.70%

**Tennessee Monthly Exports**  
(Seasonally adjusted, expressed in 1993 dollars)

