



COUNTY-LEVEL TRENDS

IN FOREIGN INVESTMENT

by Steven G. Livingston

Foreign investment has been a major factor in this state's economic development. It's not too much to say that it has transformed Tennessee's economy. The impact of the automotive industry comes to mind, but it is just one example. More than 350 foreign-owned firms have moved into the state over the past 15 years. At right we survey county-level trends in that investment.

As we can see, a ranking of the counties with the most foreign-owned firms has not changed much in recent years. In spite of its rapid rise, foreign investment has been concentrated. In both 1995 and 2010, half of the foreign firms were found in just five counties.

Of course, the size of this investment is influenced by the economic size of the county. We can measure the number of foreign-owned firms compared to a county's total number of manufacturing firms to correct for this. This perhaps better weights the impact of the investment on a county.

The large majority of foreign-investment-intensive counties are in middle and east Tennessee. The map below displays all 95 counties on this dimension for 2010. It shows

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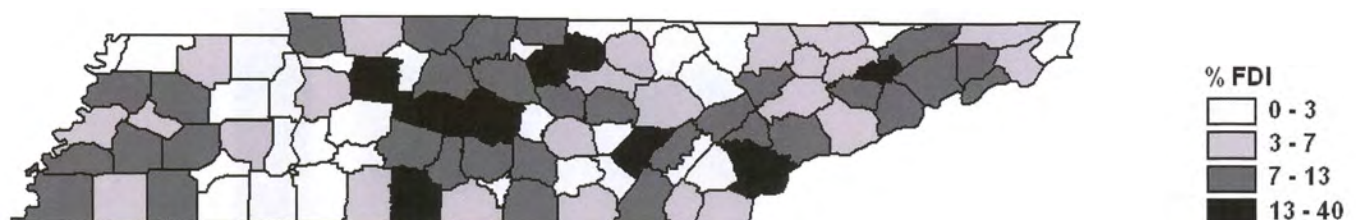
Counties with Most Foreign Firms

2010	1995
Shelby 146	Shelby 87
Davidson 96	Davidson 68
Hamilton 52	Rutherford 25
Rutherford 50	Hamilton 16
Knox 45	Knox 16
Williamson 28	Hamblen 12
Sumner 25	Williamson 11
Hamblen 18	Blount 10
Madison 18	Sumner 9
Washington 16	Carter 8
	Washington 8

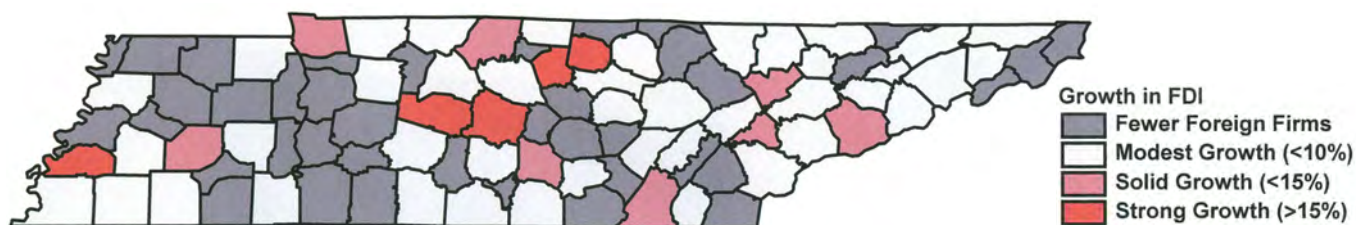
% of County Manufacturers That Are Foreign Owned

2010	1995
Jackson 30.00%	Hancock 25.00%
Smith 21.43%	Cannon 12.50%
Dickson 14.06%	Jackson 11.11%
Hamblen 13.39%	Dickson 8.97%
Monroe 12.50%	DeKalb 8.33%
Haywood 11.54%	Smith 7.89%
Jefferson 11.32%	Humphreys 7.50%
Rutherford 10.90%	Monroe 6.60%
Giles 10.42%	Rutherford 6.58%
Loudon 9.86%	Marshall 6.45%
	Unicoi 6.45%
	Hamblen 6.03%

Foreign-Owned Plants as a % of All Manufacturing Establishments: 2010



1995-2010: New Foreign Direct Investment Weighted by Economic Size of County— New Foreign Establishments/Total 1995 Establishments



FOREIGN INVESTMENT

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that foreign investment is concentrated in the outer belt of counties around Nashville (mostly automotive related), the I-75 corridor, and the Morristown (Hamblen) – Johnson City (Washington) region of East Tennessee. We can also see sizable areas of the state that have attracted no foreign investment, mostly in rural west and northwest Tennessee and on the upper Cumberland plateau.

These patterns in foreign investment activity are not new, but as the map of new foreign-owned firms above shows, they are being reinforced. West Tennessee, Appalachian east Tennessee and much of the Cumberland Plateau regions actually have fewer foreign firms than they did in the 1990s. The counties attracting the most new investment are disproportionately in the Nashville and Knoxville metro areas. A map below using employment in foreign-owned firms produces a similar view, though we see more employment growth in the Chattanooga to Knoxville corridor. Generally the most substantial foreign-owned employment is found in those counties with a significant automotive industry. The chemical sector falls immediately behind this.

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Biggest FDI Employment Gain: 1995-2010

Shelby	5,387
Hamilton	3,964
Anderson	2,262
Robertson	1,570
Sullivan	1,352
Tipton	1,318
Williamson	1,214
Hardeman	1,200
Sumner	1,153
Blount	1,100

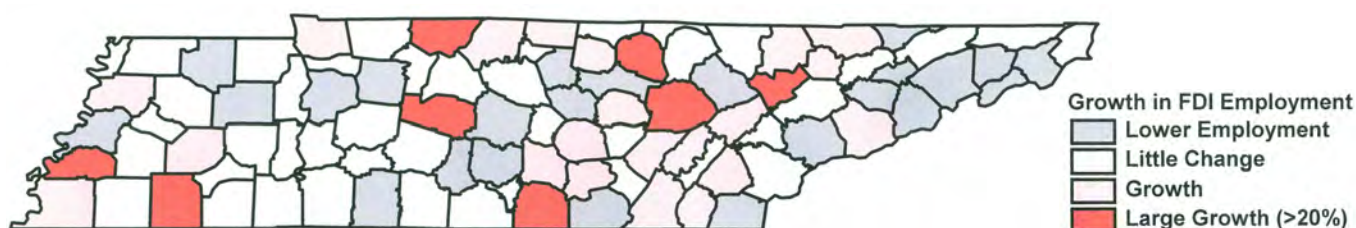
Top Counties by Employment in Foreign-Owned Firms: 2010

Shelby	15,462
Rutherford	10,876
Davidson	7,615
Hamilton	6,714
Robertson	3,362
Hamblen	3,352
Anderson	2,971
Williamson	2,640
Sumner	2,589
Knox	2,567
Sullivan	2,509

Most New Foreign- Owned Firms 1995-2010

Shelby	59
Hamilton	36
Knox	29
Davidson	28
Rutherford	25
Williamson	17
Sumner	16
Madison	12
Anderson	11
Sullivan	10

1995-2010: New Foreign Direct Investment Weighted by Economic Size of County— New FDI Employment / 1995 Total Employment



4th Quarter 2011



4th Quarter 2011



4th Quarter 2011



Tennessee's Largest Export Sectors

	Exports	Change from Last Year	Change from Last Quarter
Medical Equipment & Supplies	\$753,367,154	2.7%	-1.4%
Motor Vehicle Parts	\$678,985,455	3.6%	1.5%
Computer Equipment	\$627,628,120	37.8%	35.6%
Basic Chemicals	\$513,761,051	3.6%	-12.0%
Precision Instruments	\$387,064,743	27.1%	19.1%
Resins, Synthetic Rubber & Fibers	\$370,115,898	-1.0%	-16.3%

What's Hot and What's Not*

	Value of Exports	Growth	Decline
SECTORS WITH THE GREATEST GROWTH			
Precious Metal Waste & Scrap	\$49,038,283	389.7%	
Titanium (Including Waste & Scrap)	\$14,177,570	254.1%	
Tractors	\$12,439,151	196.3%	
Aluminum Plates > 2 mm Thick	\$74,812,487	176.8%	
Commercial Trucks	\$83,536,283	152.9%	
SECTORS WITH THE GREATEST DECLINE			
Special Purpose Vehicles	\$6,592,423		-67.0%
Electronic Circuitry Parts	\$3,234,001		-66.6%
Blood Products & Vaccines	\$17,110,583		-61.1%
Miscellaneous Printed Matter	\$10,672,424		-57.8%
Wood	\$6,350,575		-49.9%

*Among Tennessee's top 100 exported goods.

Fastest-Changing Export Destinations

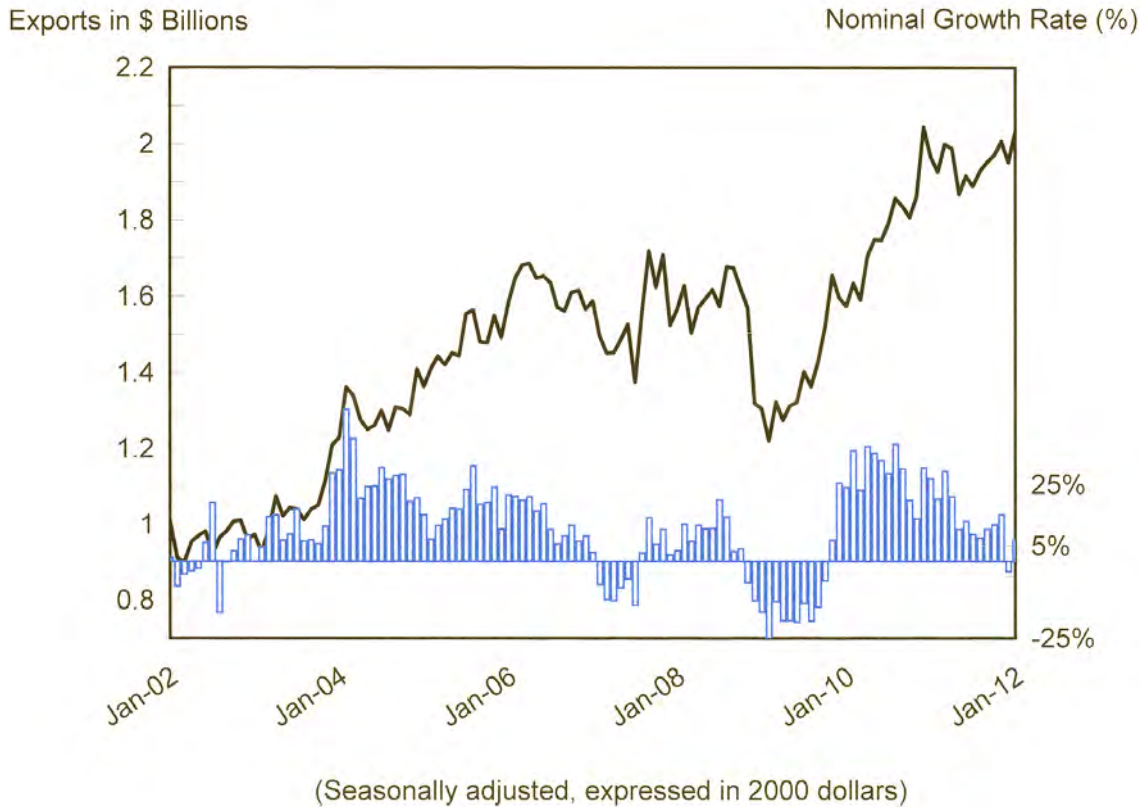
	Value of Exports	Gain	Decline
COUNTRIES WITH THE GREATEST GROWTH			
Saudi Arabia	\$93,647,692	258.0%	
Lithuania	\$3,739,687	228.6%	
Belgium	\$361,515,350	175.5%	
Haiti	\$7,501,471	161.8%	
Nigeria	\$36,408,127	157.8%	
COUNTRIES WITH THE GREATEST DECLINE			
Luxembourg	\$413,074		-99.7%
Afghanistan	\$3,600,569		-81.7%
Pakistan	\$3,151,368		-80.9%
Poland	\$10,902,345		-56.0%
Portugal	\$4,552,145		-43.0%

(Among countries averaging more than \$3 million in sales per quarter)

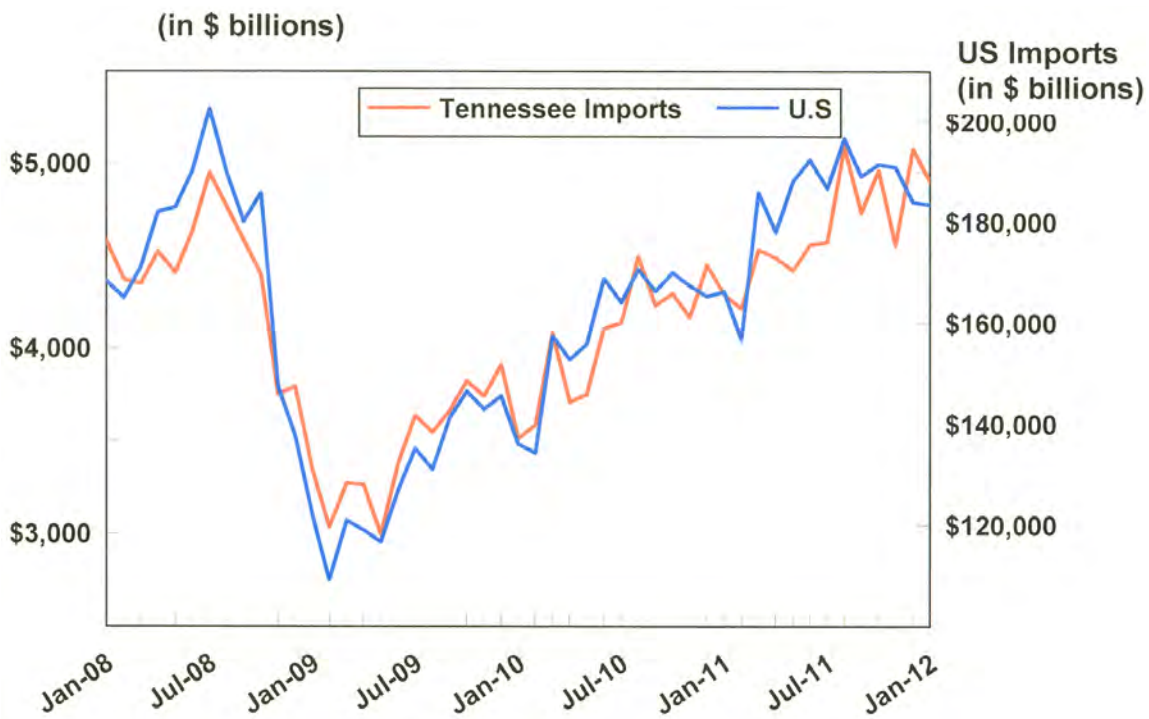
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Tennessee Monthly Exports



Tennessee Monthly Imports



A SOLID 13.5% 4TH-QUARTER GAIN RELIED ON ROBUST GROWTH IN NORTH AMERICA.

Tennessee's exports posted a solid 13.5% gain during the fourth quarter of last year. This compared favorably with America's overall 10.6% growth rate. For the year, state exports nudged the \$30 billion mark (\$29.973 billion), growing over 15% from 2010. The gains in foreign sales, however, were concentrated in the Americas. Other regions of the world proved to be more difficult markets, in particular (and perhaps not surprisingly) the euro zone.

Indeed, Canada and Mexico accounted for more than half of the quarter's global export gains. Shipments to Canada expanded almost across the board, with many industries and firms posting strong numbers for the quarter. Computer equipment, auto parts, auto engines, and DVDs were especially strong north of the border. In percentage terms, Mexico was an even better market for the quarter. Exports to Mexico were up 32% and included a wide variety of products, though most of the big increases were in the automotive sector. Tennessee's sales to the rest of Latin America were just as strong. Exports to South America were up almost \$100 million from 2010 (to \$526 million, a 23% gain). Brazil (up \$60 million) and Chile (up \$24 million) were the star markets on the continent, though Peru and Venezuela also performed well. As with Mexico and Canada, the export gains were across a number of industries, though aircraft and auto part sales were particularly notable. Even the Caribbean basin joined the party, buying 16.8% more Tennessee products than a year ago. Here the increased exports were more in the textile and apparel sectors, with yarn and fabric sales doing well. In sum, Tennessee exports to the Americas were up 19%, a gain of over \$600 million dollars for the quarter.

The "edges" of Asia were the two other strong markets in the fourth quarter. Tennessee shipments to the Gulf states grew from \$257 million to \$355 million, a 38% gain, and exports to Japan were up \$60 million (to \$431 million), a 14% gain. Though some of the sales to Japan were related to the reconstruction after its earthquake and nuclear disaster, most of the increased exports were in medical and orthopedic products, reflecting the aging of the Japanese population. The rest of Asia was actually a bit disappointing, however. Exports to China, Hong Kong, and Taiwan were all basically flat. So were the state's shipments to India. Tennessee's sales to the southeast nations actually fell about \$85 million (a 22% drop), with losses concentrated in Singapore, Thailand, and the Philippines. A small gain of about \$10 million in exports was eked

out in South Korea. The poor Asian numbers reflect in part a sizable drop in cotton exports throughout the continent, but they also show the impact of the slowing Chinese economy.

Oddly, it was the "edge" of Europe that proved the best market for Tennessee on that continent as well. Exports to Great Britain increased by \$60 million, to \$238 million. Aircraft and computer sales were at the heart of these gains. The rest of the continent was, for the most part, a wash. Belgium appeared to be a terrific market for the quarter, but in reality it was simply the recipient of medical equipment shipments that had been going to Luxembourg. The best "real" market gains were in France, where sales of medical instruments and whiskey led the way. The crisis-ridden southern European markets did very poorly. Exports to Portugal were off by half. Exports to Spain dropped 49% for the quarter. Exports to Italy fell 22%. These three nations combined with Greece to decrease their purchases of Tennessee goods by more than \$60 million. Austerity hurts! By far the largest losses in these countries were in the medical sector.

As a result of the losses in Europe, the medical equipment industry was able to post only a modest gain for the quarter. The pharmaceutical sector actually lost ground, with worldwide exports off \$15 million. The automotive industry instead formed the backbone of the state's export gains. Automotive instruments, auto bodies, engines, tires, and, of course, cars and trucks themselves all had good quarters. The computer industry also did well, increasing its foreign sales by 38% (to \$627 million). Several years ago, computer-related exports were primarily limited to North America and Japan, but Latin America is now becoming a significant market, and growth in Europe is occurring as well. Software sales were up over 50%, to \$85 million. Industrial machinery and particularly agricultural machinery had strong quarters. Cotton, on the other hand, still falling from record-high prices, had a difficult quarter. It lost \$26 million from the previous year, a 12% decline. The printing industry joined cotton and pharmaceuticals in the relatively small group of Tennessee industries that struggled in the fourth quarter.

The performance of Tennessee exporters this past quarter is evidence of continuing difficulties in the global economy. Though the state did well in South America and in a few emerging markets (such as Turkey), the economic slowdown in China, southeast and southern Asia, and especially Europe created some difficult headwinds. The state had to rely on robust growth in North America for the quarter's solid export numbers. State exporters might feel a little more confident when economic growth returns to these other markets.

County Foreign Direct Investment Employment Compared to National Average



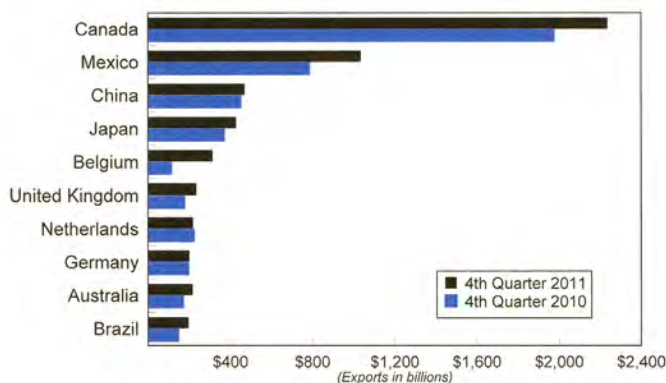
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Another way to look at the impact of foreign investment across the state is to compare county figures to national averages. Above are maps comparing each Tennessee county's foreign-owned firm employment to the national average. Again, county figures are weighted by the size of county employment. We see first and foremost that most of the state is more reliant upon foreign investment than is America as a whole. This reliance has grown, relatively, over the past 15 years. Then we see that it is middle Tennessee that is most reliant within the state. This concentration has accelerated, though most of the state's major metro areas continue to feature large foreign-owned sectors.

Foreign investment has grown rapidly in this state, more rapidly than for the nation, but it is not evenly spread. This is not, however, exactly a rural/urban divide. The most rural parts of the state are indeed largely ignored by foreign investors, but the industry structure of a county seems more important than its population density in the ability to attract such investment. Counties that are enmeshed in the state's automotive, chemical, and electronics sectors receive a disproportionate amount of it. Basically, county globalization is mirroring industry globalization. Those industries that are the most globalized produce the most foreign investment, and that investment goes to the localities in which the globalized industry is already active. For Tennessee, this serves to exacerbate existing differences in county wealth. This may be the most difficult issue for the state as the amount of foreign investment activity increases in coming years. ■

Tennessee's Leading Trade Partners



Tennessee Trade-Weighted Dollar Index

