
Business

AN EIGHTH DISTRICT PERSPECTIVE

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How Important Are Manufactured Exports to the District Economy?

The nation's large and persistent balance of trade deficits in recent years has focused national attention on the causes, consequences and cures of these deficits. The trade balance of manufactured goods has changed from a \$5.3 billion surplus in 1981 to a \$145.1 billion deficit in 1986. While international trade is often viewed from a national perspective, it has important ramifications at the regional level as well. The rapid expansion of state programs to increase exports reflects the recognition that export growth can stimulate economic development.

This article focuses on manufactured exports from the Eighth Federal Reserve District.¹ First, the regional shift of exports in recent years is highlighted. Second, the economic importance of exports in the Eighth District, especially in terms of jobs, is identified. Finally, the industrial composition of the District export sector is described.

The Geographical Shift of Exports

The geographical shift of manufacturing exports in this nation has followed the general movement of manufacturing activity towards the far West and South. In the early 1970s, the northern Midwest dominated the nation's exports, producing well over one third of the nation's direct exports. By the early 1980s, this share had dropped to a little more than one quarter. Meanwhile, states located in the West and South, especially California and Texas, increased their shares.

Total manufacturing shipments from the District, including those sold domestically, accounted for close to 7 percent of the national total during 1971-1984. The District's

share of the nation's exports, however, increased slightly. In 1971, the value of exports produced in District states accounted for 5.5 percent of the national total. By 1984 (the most recent year of the U.S. Census Bureau's *Annual Survey of Manufacturers, Origin of Exports of Manufactured Products*), the District share was 6.3 percent. Arkansas, Kentucky and Missouri marginally increased their shares of the export market, while Tennessee's share edged downward.

Importance of Manufactured Exports

The District's economy mirrors the nation's in terms of exports as a share of manufacturing shipments. In 1971, 4.8 percent of the nation's manufacturing shipments were exported. This proportion increased to 8.1 percent in 1981, but dipped to 6.7 percent by 1984. District exports accounted for 4.2 percent of District manufacturing shipments in 1971. This figure increased to 7.5 percent in 1981. In 1984, District exports totalled \$9.4 billion, 5.8 percent of manufacturing shipments. The slowdown in the early 80s of exports relative to total shipments is attributed by some analysts to sluggish economic growth abroad and a general slowdown in world trade.

Export-Related Employment

A complementary viewpoint to the shipments data is provided by employment data. Export-related manufacturing jobs—both those involved in producing exports and those involved in supplying materials and parts for exports—accounted for 9.5 percent of all District manufacturing jobs in 1984, compared with 11.4 percent nationally.

The total number of workers dependent on manufactured exports, however, goes beyond these manufacturing workers. Workers

¹The Eighth District includes Arkansas and parts of Illinois, Indiana, Kentucky, Mississippi, Missouri and Tennessee. Due to data limitations, data from Arkansas, Kentucky, Missouri and Tennessee are used to represent the District.



providing services to export producers, as well as wholesale and transportation workers who move the export goods to ports for international shipping, are dependent on exporting. For a broader view of the economy's reliance on exports, total export related employment can be compared with total civilian employment. In 1984, 4.1 million U.S. jobs were export related, or 3.8 percent of the total civilian workforce. There was considerable variation among states in the dependence of employment on exports, ranging from 1.2 percent of total civilian employment in Nevada and Hawaii to 6 percent in Connecticut. Highly industrialized states in New England and the Midwest tended towards export specialization.

As was true of the District's manufacturing sector, the reliance of the District's total civilian workforce on exports was similar to the national average. In 1984 there were 243,900 export related jobs in the region, accounting for 3.5 percent of total civilian employment. In both the nation and the District, a little more than half these workers were in the manufacturing sector. Of the nonmanufacturing jobs, the trade sector accounted for the largest number related to exports. Interestingly, the nonmanufacturing share of jobs related to manufactured exports has increased in recent decades, paralleling the shift in the overall economy towards nonmanufacturing jobs.

Composition of Regional Exports

Although the importance of exports for the District manufacturing sector in 1984 was similar to that for the nation's, the industrial composition of the exporters in the District differed substantially. Among the larger export industries, District exports were more heavily concentrated in transportation equipment and food products, and less concentrated in chemical products, electrical equipment and nonelectrical machinery.

Nationally, nonelectrical machinery, a major capital equipment grouping, is the largest exporter of the 20 major industry groups. In 1984, its exports were valued at \$32.2 billion, or 21.4 percent of the nation's total manufactured exports. In the District, this sector's \$1.1 billion in exports accounted for only 11.5 percent of the District's exports. The smaller proportion of exports in the District reflects the sector's relatively small proportion of District manufacturing activity in general. In addition, the District nonelectrical machinery sector is relatively less oriented towards exports

than nationally. The individual industries that dominate the nation's nonelectrical machinery exports—computing equipment, oil field machinery and construction equipment—play a relatively minor role in the District.

The transportation equipment sector was the nation's second-largest exporter in 1984, producing a little less than one-fifth of the nation's exports. This industry ranked first among District sectors with \$2.7 billion in exports accounting for 29 percent of total District exports. The transportation equipment sector in the region has been dominated by production in Missouri, where aircraft are produced and each of the top three domestic auto makers operate plants. A sizable portion of transportation equipment exports from Missouri is shipped to Canada in the form of motor vehicle parts and aircraft and aircraft parts.

The food and kindred products industry group was the District's second-largest export industry, producing almost 12 percent of the region's exports, far exceeding the nation's 7.1 percent. The importance of the industry's exports in the region is due largely to poultry-processing plants, mainly located in Arkansas, and to makers of liquor in Kentucky.

Summary

The reliance on manufactured exports by the District's manufacturing sector and overall workforce has been similar to the national average; 3.5 percent of the District's civilian jobs and 3.8 percent of the nation's are related to manufactured exports. Thus, the District's stake in continued export growth as a source of economic growth is roughly the same as the nation's.

From the early 1970s through 1984, District manufactured exports grew at approximately the national pace, allowing the District to produce a stable proportion of the nation's exports. Nationally, the value of manufactured exports grew at a sluggish 1.9 percent rate from 1984 to 1986 but showed renewed strength more recently. In the first three quarters of 1987, manufacturing exports were up 13.4 percent from a year earlier. Although information regarding District manufactured export trends since 1984 is not available, to the extent that historical relationships have persisted, District exports have also accelerated recently, contributing to the District's economic expansion.

—Thomas B. Mandelbaum

Business—An Eighth District Perspective is a quarterly summary of business conditions in the area served by the Federal Reserve Bank of St. Louis. Single subscriptions are available free of charge by writing: Research and Public Information Department, Federal Reserve Bank of St. Louis, P.O. Box 442, St. Louis, Missouri 63166. Views expressed are not necessarily official positions of the Federal Reserve System.

EIGHTH DISTRICT BUSINESS DATA

	Rates of Change ¹			
	Current Quarter	1986	1985	1984
General Business Indexes²	III/1987			
Arkansas	6.3%	0.2%	1.0%	2.9%
Kentucky	0.4	2.4	0.8	4.1
Missouri	4.4	1.8	3.0	4.8
Tennessee	1.3	5.0	3.6	5.3
Payroll Employment	III/1987			
United States	2.2%	2.0%	2.7%	4.5%
District	2.3	2.5	2.5	4.5
Arkansas	3.2	2.5	1.7	3.8
Little Rock	2.3	0.7	2.9	3.6
Kentucky	0.9	2.3	2.3	5.3
Louisville	0.4	2.9	2.4	4.0
Missouri	2.5	1.5	2.1	4.7
St. Louis	0.5	1.2	2.3	4.3
Tennessee	2.6	3.6	3.2	4.2
Memphis	-0.1	4.2	3.1	5.1
Manufacturing Employment	III/1987			
United States	2.6%	-0.9%	-1.8%	3.2%
District	4.6	-0.2	-1.6	3.3
Arkansas	8.6	2.4	-1.6	2.6
Kentucky	4.3	-0.4	-2.0	4.7
Missouri	6.0	-3.0	-1.4	3.5
Tennessee	2.0	1.1	-1.6	2.6
Retail Sales³	III/1986			
United States	8.1%	6.3%	6.4%	7.3%
Arkansas	-3.5	2.2	2.2	2.4
Kentucky	4.5	-2.4	12.6	0.1
Missouri	-10.7	2.6	3.3	9.6
Tennessee	0.2	6.5	9.4	10.5
Personal Income	II/1986			
United States	5.0%	5.6%	6.9%	8.3%
District	3.8	5.4	6.2	8.6
Arkansas	-0.3	5.4	6.5	8.1
Kentucky	7.4	4.0	4.3	7.9
Missouri	1.9	5.1	6.4	8.7
Tennessee	5.4	6.7	7.2	9.1
	District Employment¹		Prices¹	
	Current Quarter	Current Year	Current Quarter	Current Year
Key Industries	III/1987	III/1986 - III/1987	III/1987	III/1986 - III/1987
Fabricated Metal Products	-8.7%	-3.7%	3.7%	1.7%
Electrical and Electronic Equipment	7.8	0.4	2.3	1.2
Nonelectrical Machinery	-2.1	-1.2	1.6	1.3
Transportation Equipment	0.0	-4.7	-2.8	2.2
Food and Kindred Products	10.2	3.4	1.2	1.8
Textile and Apparel	6.4	3.8	4.8	2.3
Printing and Publishing	-0.4	0.1	2.9	4.0
Chemicals and Allied Products	2.9	0.2	4.7	5.4
Construction	20.3	3.3	4.8	2.0

EIGHTH DISTRICT BUSINESS DATA

	<u>Current Quarter</u>	<u>Previous Quarter</u>	<u>Average 1986</u>	<u>Average 1985</u>
Unemployment Rate	III/1987	II/1987		
United States	6.0%	6.2%	7.0%	7.2%
District	7.2	7.4	7.7	7.9
Arkansas	8.2	8.2	8.8	8.7
Little Rock	7.3	7.3	6.9	6.4
Kentucky	8.3	9.5	9.2	9.5
Louisville	6.8	7.5	7.0	8.0
Missouri	6.5	6.2	6.1	6.4
St. Louis	6.9	7.3	7.0	7.5
Tennessee	6.8	6.9	8.0	8.0
Memphis	6.1	5.9	6.8	6.6
	<u>Current Quarter</u>	<u>Previous Quarter</u>	<u>Same Period 1986</u>	<u>Same Period 1985</u>
Construction Contracts⁴ (millions of dollars)	III/1987	II/1987	III/1986	III/1985
Residential Construction				
District	\$500.5	\$526.2	\$532.3	\$467.8
Arkansas	53.3	53.4	63.2	58.4
Kentucky	102.9	114.4	108.7	87.1
Missouri	155.7	161.1	152.3	144.4
Tennessee	188.6	197.2	208.1	177.9
Nonresidential Construction				
District	\$426.2	\$468.8	\$398.3	\$345.9
Arkansas	32.2	60.1	54.0	35.5
Kentucky	96.9	100.6	112.0	85.3
Missouri	148.9	167.3	127.0	109.5
Tennessee	148.2	140.8	105.3	115.6

NOTE: With the exception of employment and prices in key industries, all data are seasonally adjusted. Data for Arkansas, Kentucky, Missouri and Tennessee are used to represent the District.

¹ All growth rates are compounded annual rates of change. The 1984 through 1986 growth rates compare the fourth quarter of the year listed with the fourth quarter of the previous year.

² Although each index is a comprehensive measure of economic activity, the Arkansas and Missouri indexes, computed by Southwestern Bell, are not strictly comparable to the Kentucky and Tennessee indexes, which are computed by South Central Bell.

³ Sources: Arkansas from Southwestern Bell, Kentucky from the Kentucky Revenue Department, Missouri and Tennessee from the U.S. Department of Commerce.

⁴ Excludes nonbuilding construction. Source: F. W. Dodge **Construction Potentials**, proprietary data provided by special permission.