## Midwest—leading export region

Jack L. Hervey

Exports from the United States continue to increase. They totaled \$140 billion last year, and this year they are running at an annual rate of \$165 billion.

In dollar terms, exports have expanded sevenfold since 1960. Much of the increase is due to inflation. But there has also been a marked increase in real terms—an expansion by nearly three times since 1960.

As a proportion of the country's production of goods, exports have more than doubled, advancing from 7.5 percent in 1960 to 15.4 percent in 1978. Most of this increase has occurred since 1970.

Shipments from states of the Seventh Federal Reserve District—Illinois, Indiana, Iowa, Michigan, and Wisconsin—have contributed substantially to this increase.

#### Agricultural exports

The United States is the world's largest exporter of agricultural commodities, and U.S. shipments of farm commodities also make up a large part of the nation's total exports. Agricultural shipments accounted for 20 percent of the U.S. goods exported in 1977 and about 21 percent in 1978. The agricultural share of exports in 1970 was about 17 percent.

<sup>1</sup>Exports of merchandise as a percentage of the output of goods (final sales of durable and nondurable goods adjusted for changes in business inventories) provides a measure of the importance of exports to the economy. Output makes a better base for this measure than the commonly used gross national product (GNP). Output excludes from the base services and construction, sectors that while accounting for more than half of GNP, do not enter into merchandise exports. The output of goods accounted for only 44 percent of GNP in 1978, compared with 50 percent in 1960. The use of GNP, on the other hand, as a base for measuring the dependence of the country's producers and consumers on imports is more meaningful than output, since it reflects the proportion of total income going into imports.

Agricultural production for export is fairly well concentrated, and the concentration is increasing. Ten states produced 61 percent of the value of U.S. farm exports in 1978. That compared with 56 percent in 1968.<sup>2</sup>

Illinois and Iowa ranked first and second in the value of farm exports in 1978. Indiana ranked sixth. Together, these three district states produced 23 percent of the dollar value of farm exports in 1978. With Michigan and Wisconsin, the five-state district area pro-

Ranking of major agricultural exporting states (fiscal 1968 and 1978)

Percent of total   Rank   Exports   Percent of total   Rank   Exports   Percent of total   Rank   Rank   Rank   Percent of total   Rank   Rank   Rank   Rank   Rank   Percent of total   Rank   Rank			
Iowa         2,115         7,7         2         392         6,2           Texas         2,074         7,6         3         551         8,7           California         1,927         7,1         4         413         6,5           Minnesota         1,485         5,4         5         226         3,6         1           Indiana         1,408         5,2         6         251         4,0         4           Kansas         1,360         5,0         7         296         4,7         4           Nebraska         1,332         4,9         8         229         3,6         4           Missouri         1,069         3,9         9         1741         2,8         1           Ohio         1,056         3,9         10         1941         3,1         1           Ten largest         1,056 <th>State</th>	State		
Texas         2,074         7.6         3         551         8.7           California         1,927         7.1         4         413         6.5           Minnesota         1,485         5.4         5         226         3.6         1           Indiana         1,408         5.2         6         251         4.0           Kansas         1,360         5.0         7         296         4.7           Nebraska         1,332         4.9         8         229         3.6           Missouri         1,069         3.9         9         1741         2.8         1           Ohio         1,056         3.9         10         1941         3.1         1           Ten largest         3.1         1         1         1         1         1	Illinois		
California         1,927         7.1         4         413         6.5           Minnesota         1,485         5.4         5         226         3.6         1           Indiana         1,408         5.2         6         251         4.0         4.0           Kansas         1,360         5.0         7         296         4.7         4.7           Nebraska         1,332         4.9         8         229         3.6         4.7           Missouri         1,069         3.9         9         1741         2.8         1           Ohio         1,056         3.9         10         1941         3.1         1           Ten largest         1         1,056         1	lowa		
Minnesota         1,485         5.4         5         226         3.6         1           Indiana         1,408         5.2         6         251         4.0           Kansas         1,360         5.0         7         296         4.7           Nebraska         1,332         4.9         8         229         3.6           Missouri         1,069         3.9         9         1741         2.8         1           Ohio         1,056         3.9         10         1941         3.1         1           Ten largest         1         1         1         1         1         1         1	Texas		
Indiana         1,408         5.2         6         251         4.0           Kansas         1,360         5.0         7         296         4.7           Nebraska         1,332         4.9         8         229         3.6           Missouri         1,069         3.9         9         1741         2.8         1           Ohio         1,056         3.9         10         1941         3.1         1           Ten largest         1	California		
Kansas         1,360         5.0         7         296         4.7           Nebraska         1,332         4,9         8         229         3.6           Missouri         1,069         3.9         9         174¹         2.8         1           Ohio         1,056         3.9         10         194¹         3.1         1           Ten largest         10         194¹         3.1         1         1	Minnesota		
Nebraska         1,332         4.9         8         229         3.6           Missouri         1,069         3.9         9         174¹         2.8         1           Ohio         1,056         3.9         10         194¹         3.1         1           Ten largest         1	Indiana		
Missouri 1,069 3.9 9 1741 2.8 1 Ohio 1,056 3.9 10 1941 3.1 1 Ten largest	Kansas		
Ohio 1,056 3.9 10 1941 3.1 1 Ten largest	Nebraska		
Ten largest	Missouri		
	Ohio		
exporting states 16,595 60.8 — 3,5641 56.41 — Seventh District	exporting states		
states 7,167 26.3 — 1,380 21.9 — U.S. total 27,298 100.0 — 6,315 100.0 —			

<sup>&#</sup>x27;In 1968, North Carolina ranked fifth with estimated export shipments of \$366 million (5.8 percent of the U.S. total). Arkansas ranked seventh with estimated export shipments of \$255 million (4.0 percent of the U.S. total). North Carolina and Arkansas data are included in "ten largest" total in place of Missouri and Ohio data.

SOURCE: Department of Agriculture.

<sup>&</sup>lt;sup>2</sup>Agriculture exports cannot be identified by state of origin. Farm commodities are mixed as they move along the marketing chain, some shipments going to markets at home, others abroad. In estimating a state's export of a commodity, the USDA multiplies the proportion of the crop grown in that state by the dollar value of the commodity exported during that period. The result is export figures that represent state shares of the exports of various commodities. It makes little difference how much of the production from a particular state is actually consumed in foreign or domestic markets. The strength of export demand affects all producers, regardless of where their crops are finally consumed.

duced 26 percent, some four percentage points more than in 1968.

The increased importance of district states as a source of agricultural exports has been due mainly to changes in foreign demand for U.S. farm commodities. Foreign demand for feed grains and soybeans has increased in recent years, making these commodities important relative to total agricultural exports.

Exports of feed grains reached a near-record \$5.9 billion in 1978 to account for about a fifth of all exports of U.S. produced farm commodities. Though down slightly from export shares of the previous three years, feed grain exports were up in both value and export share from the late 1960s and early 1970s. In 1968, for example, the value of U.S. feed grain exports totaled \$923 million. As a share of all agricultural exports that year, feed grain shipments were about 15 percent.

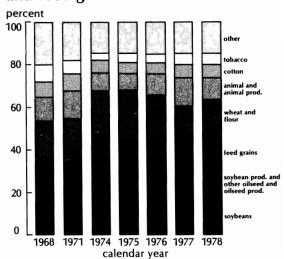
Exports of soybeans—and to some extent, other oil seeds—have increased similarly. Exports of soybeans rose from \$810 million in 1968 to \$5.2 billion in 1978. That was an increase from 13 percent of all farm exports to nearly 18 percent.

The disproportionately rapid growth in exports of feed grains and soybeans resulted from Japan, Western Europe, the Soviet Union—and some developing countries—increasing the protein content of their diets either directly through consumption of high-protein oilseed products or indirectly through expanded production of livestock.

The growth in demand for U.S. farm commodities came, then, from increases in income in these importing countries and tendencies of people to increase their intake of protein, especially meat, when basic dietary requirements have been met.

As farmers in the Seventh District are major producers of feed grains and oil seeds, these shifts in demand overseas have increased the relative importance of district

# Composition of U.S. agricultural exports shifts toward soybeans and feed grains

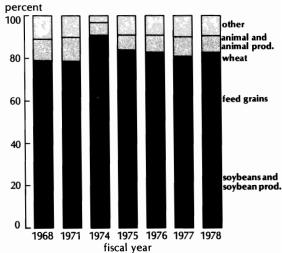


SOURCE: Department of Agriculture.

states as sources of agricultural exports. The five district states accounted for 48 percent of the feed grains produced for export in fiscal 1978 and 39 percent of the soybeans, oil seed, and protein meal products.

Within the district, feed grains and soybeans and soybean products account for

# Soybeans and feed grains make up large proportion of Seventh District agricultural exports



SOURCE: Department of Agriculture.

<sup>&</sup>lt;sup>3</sup>Measured in terms of cash receipts from farm marketings nationwide, the proportion of agricultural production accounted for by Seventh District states has varied little since the mid-1960s. Farmers in these five states accounted for 22.3 percent of the cash receipts in 1965, 21.7 percent in 1970, and 22.5 percent in 1976.

most of the agricultural production grown for export. (Soybeans are the only oil seeds of significance grown in the district.) More than three-quarters of the agricultural exports from district states were feed grains (mostly corn) and soybeans and soybean products. Feed grains accounted for 40 percent of the exports from the district, and soybeans and soybean products accounted for an additional 39 percent. Wheat, though a major export commodity for the country as a whole, is of little importance to production and exports in district states.

The importance of agricultural production to U.S. exports is only half the picture, however. The other half is the vital dependence of U.S. agriculture on the foreign demand for farm products. For the

Agricultural exports as percent of cash receipts from farm marketings—major agricultural states (1978)<sup>1</sup>

State	Cash receipts (million de	Exports <sup>2</sup> ollars)	Percent
Illinois	\$ 6,303	\$ 2,770	43.9
Iowa	8,209	2,115	25.8
Texas	7,307	2,074	28.4
California	10,393	1,927	18.5
Minnesota	4,894	1,485	30.3
Indiana	3,447	1,408	40.8
Kansas	4,249	1,360	32.0
Nebraska	4,608	1,332	28.9
Missouri	3,597	1,069	29.7
Ohio	3,068	1,056	34.4
Ten largest			
exporting states	56,075	16,595	29.6
Seventh District			
states	23,709	7,167	30.2
U.S. total	110,221	27,298	24.8

'The states' shares for exports are based on the fiscal year October 1, 1977, through September 30, 1978. Cash receipts from farm marketings are for calendar year 1978. Calendar year 1978 exports were somewhat greater than for the fiscal year—\$29.4 billion compared with \$27.3 billion, respectively. As a result, the "export share of cash receipts" in the table is somewhat understated. For the total U.S. where comparable time period data are available the "exports share of cash receipts" for calendar 1978 was 26.7 percent as compared to 24.8 percent reported in the table.

<sup>2</sup>The value of agricultural exports includes some dollar value added associated with transportation and processing.

SOURCE: Department of Agriculture.

country on the whole, it has been estimated that as much as a fourth of the cash receipts from marketing farm-produced commodities came from export markets in fiscal 1978. Because of the composition of agriculture in the Seventh District, these five states are especially dependent on foreign demand. About 30 percent of their receipts from farm marketings were derived from exports. Exports accounted for more than 40 percent of the receipts from farm marketings in Illinois and Indiana.

These figures could be overstated slightly because the value of agricultural exports includes some nonfarm value added, such as the costs of shipping and in some cases processing. Most of the agricultural exports produced in the district, however, contain comparatively little nonfarm value added because of the nature of the products.

#### Output of manufactured goods

Most of the country's maufacturing is also concentrated geographically. An extensive transportation net, ready access to raw materials, and large concentrations of population have made the Seventh District and surrounding states the nation's industrial heartland. Of the ten largest manufacturing states in 1976, four were in the Midwestthree in the Seventh District.4 Ohio ranked second, Illinois third, Michigan fourth, and Indiana ninth. These four states accounted for nearly a fourth of the manufactured goods shipped that year (shipments valued f.o.b. at the plant). The three top district states, along with Wisconsin, which ranked 11th, and Iowa, which ranked 17th, accounted for nearly 22 percent of the total value added in manufacturing and more than 22 percent of the dollar value of manufactured shipments.<sup>5</sup> The

<sup>4</sup>California, Ohio, Illinois, Michigan, Texas, New York, Pennsylvania, New Jersey, Indiana, and North Carolina.

<sup>5</sup>Value added refers to the incremental contribution to the dollar value of a product made in the district. Only where a product is manufactured totally within the district (from extraction of raw materials to the final product) does the value added equal the value of shipments.

largest ten manufacturing states accounted for 58 percent of the value added and 59 percent of the manufacturing shipments.

#### **Exports of manufactured goods**

Foreign demand for U.S. manufactured goods has increased faster in recent years than domestic demand, boosting the proportion of manufactured goods shipped to export markets, from a national average of 4 percent in 1966 to 7 percent in 1976. The proportion of manufactured goods shipped abroad from the ten largest exporting states increased from 4.1 percent of total shipments of manufactured goods in 1966 to 7.5 percent in 1976. The increase from the five largest exporting states was even larger, from 3.1 percent to 7.7 percent. For states of the Seventh District, the increase was from 4.5 percent of total manufactured shipments to 7.6 percent.

The magnitude of the export market shows even more in data for individual states and industries. The data also show wide variations in the importance of exports as a source of demand for manufacturing output. The export share of shipments from the largest manufacturing states cluster around the national average. Michigan, for example, had 8.6 percent of its manufacturing shipments going into exports in 1976, com-

Manufacturing exports as percent of manufacturing shipments—major manufacturing states (calendar 1966 and 1976)

		1976			1966	
State	Shipments (million of f.o.b. p		Percent	Shipments (million of f.o.b. p		Percent
California	\$102,041	\$ 8,072	7.9	\$ 39,495	\$ 1,786	4.5
Michigan	80,327	6,888	8.6	40,558	1,568	3.9
Illinois	82,351	6,660	8.1	41,324	1,869	4.5
Ohio	83,599	5,794	6.9	41,645	1,670	4.0
New York	76,087	5,320	7.0	48,231	1,838	3.8
Texas	77,120	5,201	6.7	21,330	1,100	5.2
Pennsylvania	71,919	4,706	6.5	38,164	1,542	4.0
Washington	18,843	3,235	17.2	6,965	6021	8.6
Indiana	45,181	2,828	6.3	21,647	661	3.1
New Jersey	45,711	2,660	5.8	24,941	980	3.9
Ten largest exporting states	683,279	51,364	7.5	332,5541	13,6341	4.1
Seventh District	25 4 252	20.005	• •	*** 776		4.5
states	264,058	20,085	7.6	111,776	5,055	4.5
U.S. total	1,185,695	83,098	7.0	538,737	21,299	4.0

In 1966, Wisconsin had an estimated \$620 million in exports (4.1 percent of manufacturing shipments by firms in the state). Wisconsin data are included in the "ten largest" total in place of Washington for that year. In 1976, Wisconsin had exports estimated at \$2,209 million (6.2 percent of manufacturing shipments).

Ranking of major manufacturing states (1966 and 1976)

		1976			1966	
		Percent of			Percent of	
State	Exports (million dollars)	total	Rank	Exports (million dollars)	total	Rank
California	\$ 8,072	9.7	1	\$ 1,786	8.4	3
Michigan	6,888	8.3	2	1,568	7.4	5
Illinois	6,660	8.0	3	1,869	8.8	1
Ohio	5,794	7.0	4	1,670	7.8	4
New York	5,320	6.4	5	1,838	8.6	2
Texas	5,201	6.3	6	1,100	5.2	7
Pennsylvania	4,706	5.7	7	1,542	7.2	6
Washington	3,235	3.9	8	6021	2.8	11
Indiana	2,828	3.4	9	661	3.1	9
New Jersey	2,660	3.2	10	980	4.6	8
Ten largest						
exporting states	51.364	61.8	_	13,6341	64.01	_
Seventh District				,		
states	20.085	24.2	_	5.055	23.7	_
U.S. total	83,098	100.0	_	21,299	100.0	_

In 1966, Wisconsin ranked tenth with estimated exports of \$620 million (2.9 percent of the U.S. total). Wisconsin data are included in the "ten largest" total in place of Washington for that year. In 1976, Wisconsin ranked twelfth with estimated exports of \$2,209 million (2.7 percent of the U.S. total).

pared with 7 percent for the nation. California had 7.9 percent, New York 7.0 percent, and New Jersey 5.8 percent.

Washington, on the other hand, though not a major manufacturing state, ranked eighth as an exporter of manufactured goods, with 17.2 percent of its shipments going into export channels. Especially important to manufacturing in Washington were exports of transportation equipment (reflecting the dominance of U.S.-made aircraft in world air transportation) and wood products. The largest proportion of manufacturing shipments going abroad, 23.5 percent, was from Alaska, a state with a narrow industrial base—mainly fisheries processing and lumber and wood products—and, largely because of its geographical separation from the contiguous states, comparatively little domestic. demand for its products. The smallest, proportion, 1.2 percent, was shipped from Wyoming, also a state with a narrow industrial base, but one almost entirely oriented toward domestic consumption—foods and stone products.

The export share of a state's manufacturing shipments depends heavily on the mix of the industries in the state. The greater the concentration of the more export-oriented industries, the greater the dependence of production and employment on foreign markets.

SOURCE: Department of Commerce.

SOURCE: Department of Commerce

Industries depending most on exports are electrical and nonelectrical machinery and transportation equipment—a dependence that has increased substantially in recent years. In Illinois, for example, 25 percent of the nonelectrical equipment shipped in 1976 went into exports markets. That was compared with about 15 percent in 1966. In Indiana, about 11 percent of the nonelectrical machinery shipped in 1976 went into exports, compared with 8 percent in 1966. For states of the Seventh District taken together, the increase was from 11 percent in 1966 to about 19 percent in 1976. For the nation as a whole, the increase was from 10 percent in 1966 to 18 percent in 1976.

About 10 percent of the electrical machinery and transportation equipment produced in the Seventh District was exported in 1976. That was more than twice the export share of shipments in 1966.

Machinery, food processing and transportation equipment are the dominant types of manufacturing industries in the United States. Together, they accounted for more than two-fifths of the manufacturing shipments in 1976. In the Seventh District, they accounted for 56 percent. These industries are an even more dominant propor-

tion of U.S. exports. Nationwide they accounted for 61 percent of manufactured exports in 1976 and in the Seventh District they made up three-quarters of manufactured exports.

Even with the dominance of these industries, there is considerable variation in their importance from state to state. In Iowa, for example, more than 17 percent of the manufactured exports in 1976 were from food industries, 63 percent from machinery industries, and only 1 percent from transportation industries. Comparable figures for Michigan were 3 percent, 18 percent, and 52 percent and for Illinois 12 percent, 59 percent, and 6 percent.

#### **Exports and employment**

Often lost in considerations of international trade is the importance of the export market to employment. Jobs lost to imports seem to get more play than jobs created by exports. It has been estimated that nearly 1.2 million jobs were related to the export of manufactured goods in 1976. That is a significant number of jobs by any measure.

The effects of exports on employment vary from state to state. Typically, the propor-

### Manufacturing shipments by industries (1976)

	Share of manufactured shipments by state and by manufacturing category									
						New	Total			
Category	<u>Illinois</u>	<u>Indiana</u>	<b>Michigan</b>	Wisconsin	<u>lowa</u>	District	<u>California</u>	<u>Ohio</u>	<u>York</u>	U.S.
	(percent)									
Food	17.4	9.8	6.3	23.4	43.4	15.6	18.4	9.5	10.6	15.3
Chemicals	7.8	6.3	4.4	2.6	7.5	5.8	5.3	7.1	6.8	8.7
Primary metals	8.9	20.5	7.9	3.9	3.2	9.5	3.3	14.1	6.4	7.1
Fabricated metals	9.0	7.5	9.8	8.1	4.0	8.5	6.2	11.5	4.7	6.5
Machinery—										
nonelectrical	15.7	8.0	9.7	18.2	18.4	13.1	7.8	11.3	10.4	8.9
Machinery—										
electrical	9.2	12.3	2.1	5.8	6.2	6.9	8.5	6.8	8.7	6.1
Transportation										
equipment	4.8	14.7	46.7	12.7	2.9	20.1	15.9	16.3	5.6	11.6
Other	27.2	20.9	13.1	25.3	14.4	20.5	34.6	23.4	46.8	35.8
Total shipments	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Department of Commerce.

### Manufacturing exports by industries (1976)

Share of exports by state by manufacturing category

Category	Illinois	Indiana	Michigan	Wisconsin	lowa (percen	Seventh District	California	Ohio	New York	Total U.S.
Food	11.7	4.5	2.6	5.5	17.5	7.3	8.9	4.9	1.9	7.1
Chemicals	6.7	10.6	6.1	2.4	5.6	6.5	6.0	5.7	9.0	11.1
Primary metals	2.8	7.2	9.5	7.2	1.6	5.4	1.4	4.2	3.2	3.2
Fabricated metals	3.6	3.9	6.9	5.0	3.1	4.9	3.3	7.7	4.2	4.4
Machinery—										
nonelectrical	48.6	14.5	14.7	49.5	49.7	32.4	.18.9	25.6	25.5	22.9
Machinery—										
electrical	10.0	18.4	3.3	11.7	12.9	9.3	18.6	11.8	18.0	10.9
Transportation										
equipment	6.1	32.4	52.1	14.4	1.3	26.1	25.5	28.4	5.7	19.7
Other	11.5	8.5	4.8	4.3	8.3	8.1	17.4	11.7	32.5	20.7
Total exports	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Department of Commerce.

tion of manufacturing employment associated with exports is somewhat lower than the proportion of manufacturing that goes into exports. Of total manufacturing employment in 1976, 6.3 percent of the workers were associated with the export market. But of total manufacturing

shipments, 7.0 percent of those shipments went to the export market.

This indicates the mix of manufactured goods from the United States takes fewer workers for the dollar value of the production than goods manufactured for the home market. Put another way, the dollar value of

Exports as a percentage of total manufacturing shipments by industry<sup>1</sup> (1976)

Category	Illinois	Indiana	Michigan	Wisconsin	<u>lowa</u> (percen	Seventh <u>District</u>	California	<u>Ohio</u>	New York	Total U.S.
Food	5.4	2.9	3.5	1.4	2.9	3.6	3.8	3.6	1.3	3.2
Chemicals	6.9	10.6	11.9	5.6	5.4	8.5	9.0	5.5	9.3	8.9
Primary metals	2.5	2.2	10.2	1.2	3.6	4.3	3.3	2.1	3.5	3.2
Fabricated metals	3.2	3.2	6.1	3.8	5.6	4.4	4.3	4.6	6.2	4.8
Machinery— nonelectrical Machinery—	25.1	11.4	13.0	17.0	19.5	18.8	19.1	15.7	17.2	18.1
electrical	8.8	9.4	13.3	12.7	15.1	10.3	17.3	12.0	1.4	12.4
Transportation										
equipment	2.8	13.9	9.6	7.0	3.3	9.9	12.7	12.1	7.1	11.9
All exports	8.1	6.3	8.6	6.2	7.2	7.6	7.9	6.9	7.0	7.0

<sup>&</sup>lt;sup>1</sup>Table interpretation: For the state of Illinois, for example, exports of nonelectrical machinery accounted for 25.1 percent of shipments of nonelectrical machinery manufactured in Illinois.

SOURCE: Department of Commerce.

goods made for export is higher, per worker, than goods made for domestic markets. Put still another way, labor productivity is higher for goods produced for exports than for the mix of goods produced for domestic consumption.

The value of export shipments per export-related worker in 1976 has been estimated at \$71,000. For domestic shipments, the figure was about \$63,000. Comparable figures for the ten largest exporting states were \$73,000 and \$65,000. The difference was even greater in states of the Seventh District. The per-worker value of output for export in the five-state area averaged \$79,000 in 1976, compared with a value of \$70,000 for domestic shipments. These figures indicate that the export demand was for higher valued goods than domestic demand, which covered a much wider value-array of goods.

Export demand for manufactured goods has become increasingly important for employment in recent years. In 1976, total employment in manufacturing was down about 6 percent from the level of the late 1960s. Employment in export-related manufacturing was up about 50 percent, however, increasing the proportion of manufacturing employment in exportrelated industries from about 4 percent in 1969 to more than 6 percent in 1976. Seventh District states and other major export industry states contributed significantly to the shift. More than half of the 400,000 new jobs created in export-related manufacturing between 1969 and 1976 were in the ten largest exporting states. About a sixth of the additional employment was in district states.

California, the leading manufacturing export state, had the largest number of workers in export-related manufacturing. Estimates show nearly 124,000 or 7.7 percent of the state's employment in export-related manufacturing.

Illinois, the third largest exporting state for manufacturers, was next with an estimate of nearly 87,000 employed in export-related manufacturing. That was 6.9 percent of the state's manufacturing employment.

Four other states, Ohio, New York, Penn-

Estimated employment associated with exports as a percentage of manufacturing employment

State	Manufa emplo		Export- emplo		Percent of total		
	1976	1969	1976	1969	1976	1969	
	(thous	sands)	(thous	ands)			
Illinois	1,256	1,408	87	67	6.9	4.7	
Michigan	1,050	1,169	74	59	7.0	5.0	
Indiana	677	744	40	28	5.9	3.7	
Wisconsin	520	524	32	23	6.2	4.4	
Iowa	231	219	20	11	8.6	5.0	
District							
total	3.734	4.063	253	187	6.8	4.6	
Ten largest	.,						
states1	10.436	11.825	702	499	6.7	4.2	
U.S. total	18,753	20,037	1,173	779	6.3	3.9	

The states with the largest export values in 1976 and 1969 were: California, Michigan, Illinois, Ohio, New York, Texas, Pennsylvania, Washington, Indiana, and New Jersey.

Note: Figures for Seventh District states may not equal the total due to rounding.

SOURCE: Department of Commerce.

sylvania, and Michigan, had more than 70,000 in export-related manufacturing jobs.

Just as the importance of manufacturing exports relative to total manufacturing varies from state to state, so does the importance of export-related employment relative to total employment. In states with little manufacturing, exports and export-related employment tend to be of little consequence. In Montana and Wyoming, for example, where there is little manufacturing in the first place, less than 2 percent of manufacturing employment is related to exports. There are exceptions, however. In Alaska, where there is also little manufacturing, nearly 23 percent of the manufacturing employment is export related, mostly in the lumber and wood products industry. In Washington, ranking eighth among the exporting states though it does not count as one of the big manufacturing states, more than 12 percent of the manufacturing jobs in 1976 were in export industries, particularly in lumber and transportation.

#### Conclusion

Exports are often seen as fairly unimportant to an economy with a GNP of more than \$2 trillion. Exports amount to significantly less than a tenth of GNP. Viewed in terms of the value of goods produced, however—excluding services and structures—exports take on new importance. They accounted for 15 percent of the output last year. And in the disaggregation of exports—their breakdown

by type of industry and location—they take on still more significance.

Sources of exports are not spread evenly across the country or across industries. Locations of export industries tend to be concentrated in only a few areas. Most of the exports tend to come from only a few industries.

Agricultural exports account for about a fifth of the U.S. total, but most of these exports come from comparatively few states, including states of the Seventh District. In addition, agricultural exports make up a large part of the cash receipts from farm marketings in some states, which again include those in the Seventh District.

Manufacturing for export is also heavily concentrated. Comparatively few states—and comparatively few industries—make significant contributions to the export total. As a result, industrial production and manufacturing employment in those states depend

heavily on export markets.

In the Seventh District, where exports take nearly a fifth of the nonelectrical machinery and a tenth of both the electrical machinery and transportation equipment and where export-related employment accounts for 7 percent of the manufacturing employment, conditions that promote a healthy, growing export market are vitally important to the economic wellbeing of the region. Continuation of the substantial expansion in exports last year—and the first part of this year—is certain to be reflected in increases in income and employment in district states.

These states may seem to be a long way from markets in Europe and the Far East, but an examination of the importance of the overseas markets to businesses and workers of the Midwest indicates that in economic terms the distance is not at all that great. These markets are, in fact, getting very close.