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Wood Processing Industries in the Eighth District

The forests of the Eighth District constitute one of the most important natural resources in the region. A substantial part of the district's income is derived directly or indirectly from our timber resources. The production and marketing of timber is the primary source of income to commercial forest operators and a welcome supplemental income to many farmers and other owners of small wood lots.

In addition to the direct return from growing and selling trees is that income which results from the processing of timber into lumber and finished wood products, and into many other products which require wood as a raw material. In mid-March of 1946 (the latest date for which such data are available) there were more than 7,000 establishments in district states in the business of producing lumber, and manufacturing finished wood products. In addition, there were almost 600 establishments in the pulp and paper industry which depends mostly on forest products as a raw materials source, and a number of other plants manufacturing items (such as certain chemical products) made from forest resources. In the basic and finished lumber industries approximately 190,000 workers were employed and taxable payrolls during the first three months of that year totaled $74 million (an unadjusted annual rate of $295 million).[1] Eight per cent of manufacturing employment and 6 per cent of manufacturing payrolls were reported by these forest products industries. In the paper and allied products lines, 60,000 workers and $30 million in quarterly taxable payrolls were reported, 2.5 per cent each of manufacturing employment and payrolls, respectively.

This article is the first of two on the industries using forest products as a raw material and on the possibilities of industrial expansion in these lines. In the December, 1947 Review an appraisal of the district's forest resources and of possibilities for increasing income to the landowner from timber under good management was given. The present article is designed to point out salient features of the existing wood processing industry in the district and the following article to appraise potential growth of industry through increased output from the district forests and through shifts in the pattern of the district industry.

The proportion of jobs and incomes from these industries varies considerably from state to state. In Arkansas, for example, the basic and finished lumber industries plus pulp and paper lines accounted for 55 per cent of the manufacturing employment and 49 per cent of the payrolls. In Mississippi, 44 per cent of all manufacturing employment and almost half of the payrolls were provided by these plants. At the other extreme was Indiana where they represented only 7 per cent of employment and 6 per cent of manufacturing payrolls.

[1] Based on reports tabulated for establishments reporting under the OASI program.

Average employment and payrolls for the full year 1946 and probably for 1947 undoubtedly were larger than is indicated by figures based on operations in the first quarter of 1946. Activity in the first quarter, particularly in basic lumber production, is near the seasonal low point for the year. In addition, logging operations and lumber production in the early part of 1946 were curtailed considerably by adverse weather conditions in many sections of the district.

Unfortunately, there appears to be a sizable gap between the amount of income presently being realized from the production of timber, as well as its processing into finished products, and the potential income that could accrue to the district from these sources. The original article in this series indicated that timber production, and hence income, in most parts of the district might be increased substantially if known timber management practices were applied to the wood lots and forest tracts of the area. Further study suggests that district income can be increased through the development of the wood-products industries.

There are three general directions in which a further development of the wood processing industries might take place. First, the industry might be expanded along the lines of its present pattern, which would call for larger output from the district's forests—as pointed out in the earlier article, a definite possibility if management practices are improved. Second, expansion could take place in the form of new industries—not only those that are new to the district but also those new in technology. Included here would be processes based on utilization of waste wood materials and their conversion into synthetic wood products and laminated and molded materials, and operations which transform wood into items far different from the original material—for example, molasses from oak chips. This also would call for increased forest yields. Third, expansion might occur through shifting emphasis from some present uses and providing for more processing—for example, less raw lumber shipped and more used as material for finished wood products. Depending on the extent of markets, this might or might not call for increased output from the forests.

Actually, expansion probably should proceed along all three lines, providing that the district's forests can be brought to yield increasing output in sufficient volume to meet increased demand.

WOOD PROCESSING

The process of converting timber into finished wood products or products based on wood begins at the time the tree is cut, and the various processing plants are classified in several general industry groups. Two of these, where the main change from the tree to the product is physical, are the basic timber and the finished lumber products industries. Logging operations, sawmills, planing mills, cooperage stock mills, veneer mills, and plywood mills constitute the basic industries. A large part of the final product of the basic industries is sold as raw lumber and used as such in construction, crating, etc. The balance becomes the raw material used in the furniture and other finished lumber products industries. Included in this group are the host of factories manufacturing wood products ranging from matches to freight cars.

The other major industry group processing wood is the paper and allied products industry. Here the basic line is pulp mills, and the finished products, paper and items made from paper. In addition, however, various lines in other industries use wood as a raw material—notably some chemical processes.

THE BASIC INDUSTRIES

A downward trend has characterized the basic lumber industry in the Eighth District for the past quarter century despite wartime expansion. In the twenty years from 1919 to 1939 the number of basic lumber plants in the seven district states decreased from 7,500 to less than 2,000.[2] The number of workers employed fell from 115,000 to 61,000 and total annual wage payments declined from $101 million to $40 million.

During the war period, however, there was a rapid increase in basic industries as lumber production was expanded to meet wartime requirements. This was especially true of sawmills and planing mills.

The basic industries in the district states are heavily concentrated, geographically, since they must of necessity be located near the source of their raw materials. In the case of logging camps, this location factor is obvious. Thus it is to be expected that about nine-tenths of the district states' logging camps were in Arkansas and Mississippi where the largest timber tracts are located.

To a somewhat lesser extent, sawmill and planing mill operations also are concentrated in these two states. However, the development of small portable-type sawmills, together with the increase

[2] The discussion is in terms of the seven district states because exact data are not available for the district proper. Of the 2,000 plants noted, somewhat more than half were in the district proper. Most of the logging camps, and more than half of the sawmills, were in the district proper. About the same situation prevails today.

in hard-surfaced roads and the use of trucks for transportation, has tended to diffuse operations at this level in the industry.

Today the vast majority of lumber manufacturing plants in this district are small. This also was characteristic of prewar plants since long-term influences, related directly to the condition of the timber resources, exerted pressure in this direction for a number of years. In addition, however, the tremendous wartime and postwar demand for lumber greatly stimulated the establishment of new, small-scale plants, particularly sawmills.

Sawmill Operations Affected by Timber Management Practices—For many years lack of concern for the future of our timberland, which found expression in the policy of "cutting and getting out", resulted in a significant decline in the number of large timber tracts capable of supporting large-scale lumber operations. Today much of the standing timber is found in small wood lots that are scattered over wide areas. While small portable-type sawmills are highly adaptable to such conditions, operations of this kind generally tend to increase the cost and hence the market price of lumber.

In more modern times a number of large manufacturing plants, whose operations are dependent upon a continuing supply of timber, have built up extensive holdings which have been placed on a sustained-yield basis, thus reversing the trend noted above. In addition, many of the these companies are encouraging farmers in adjacent areas to plant trees as a source of income which aids the farmer and provides an additional supply of raw material for the manufacturer. This movement is particularly noteworthy in the southern portion of the district. If this practice continues to develop, the size of timber stands (either under one owner or handled pretty much as such) will increase and hence will be capable of supporting larger sawmill operations.

Poor timber management practices have led wood lot owners and commercial operators in too many instances to pursue a policy of indiscriminate cutting of trees, with little regard to selecting the most efficient sized tree in terms of lumber production. While the practice of cutting small-diameter trees increased during the war, it has been common for many years. The effect on sawmill operations is significant. Prior to the war, 70 per cent more manhours of labor were required to process 1,000 board feet of lumber from trees eight inches in diameter than were required when trees averaged 24 inches in diameter, according to a U. S. Forest Service survey of small mills in the South. Labor requirements per unit of lumber processed in logging operations averaged twice as large for eight-inch trees as for 24-inch trees. The continuing effect of this factor is indicated by a study by the Bureau of Labor Statistics reporting a decline of three inches in the diameter of the average sawlog in the South between 1935 and the survey of 1945-1946. Again it must be noted that timber cutting practices and individual sawmill operations vary widely and averages such as these cannot be applied universally. However, available evidence indicates that these estimates are fairly representative of management practices and of sawmill operations in many sections of the district.

Lumber Production in District States—Although the basic lumber industry in the district states is not as large now as it was in the 1920's or in earlier years, output of lumber here is still considerable. In 1945, output was estimated at 4.0 billion board feet. During the peak war years, from 1942 through 1944, output averaged 4.9 billion board feet. Prior to the war, from 1936 through 1939, district states' production averaged 3.0 billion board feet.

Not only has the physical volume of lumber produced in this area in recent years averaged less than in the 1920's and in the early years of this century, but until World War II it also declined relative to total U. S. production. The large wartime demand for lumber brought many marginal mills into operation. The number of small mills increased sharply as it became profitable to cut low quality timber not merchantable in periods of normal demand. As a result, production increased faster in this area than nationally and from 1942 through 1944 averaged 14.0 per cent of U. S. output. In 1945, the ratio increased to a little less than 15.0 per cent.

Most of the lumber production in the seven-state area and in the Eighth District portion thereof comes from Arkansas and Mississippi. In 1945, 61 per cent of the region's lumber and 75 per cent of the Eighth District production was accounted for by these two states. Except during the peak war years, these two states have held their output at approximately the present level, relative to production in the other five states, for the past quarter century.

Before the recent war, most of the lumber produced in the district states was of the softwood variety, with yellow pine accounting for the bulk of the output. In 1929, for example, softwood lumber represented 57 per cent of the total and in 1939 it amounted to 63 per cent of all lumber produced. Under the pressure of wartime demand, however, many hardwood trees were marketed which in normal times would not have been profitable for the timber owner to cut. This was true particularly of such trees found in mixed stands and trees of small size and low quality. As a result, hardwood lumber production more than doubled from 1939 to 1942, although it remained less than that of softwood lumber. Since 1942, softwood production has declined steadily, from 3.0 billion board feet in 1942 to an estimated 1.6 billion in 1945. During the same period hardwood output increased from 2.3 billion board feet to 2.7 billion in 1945.

Most of the softwood lumber is produced in Arkansas and Mississippi. In each of those states, however, hardwood lumber production has increased considerably relative to softwood output, and was larger in 1945 than in 1942. Softwood production in 1945 was less than in 1942 in both states.

A large quantity of lumber produced in the district states is processed in this area. However, shipments to other states are sizable. From 1940 through 1943, estimated shipments of lumber from district state mills, including shipments from inventories, averaged 4.9 billion board feet per year. Forty-eight per cent was consigned to points within the state of origin, 24 per cent was shipped to other district states, and the remaining 28 per cent was shipped outside the district states.

Receipts of lumber from outside the district in 1940-1943 averaged 2.2 billion board feet, or 57 per cent more than was shipped to other parts of the country. Arkansas and Mississippi were the only states that shipped more lumber out of the district than they imported from other sections.

FINISHED WOOD PRODUCTS INDUSTRIES

The availability of a large supply of lumber in the district states has led to the development of many finished wood products industries. In 1939, there were 1,500 plants engaged in the manufacture of wood products. Employment totaled 73,000 and production was valued at $306 million.

As in the case of basic timber products, full statistics for the finished lumber industry in the district proper are not available. But where the pattern of the basic industry was not distorted by using district state data rather than those for the district proper, such is not the case in the finished lumber products lines. In the first place, the Eighth District proportion of the finished lumber industry of the seven-state area is appreciably smaller than that of the basic timber industry—less than one-third as opposed to more than one-half. Thus comparing the two groups for the seven-state area gives the impression of balance, whereas within the district proper there is considerable unbalance.

Furthermore, while the district has roughly 30 per cent of the finished lumber products industry group in the seven district states, the proportions for the several industry lines vary appreciably, and unfortunately, larger than average shares of the more profitable lines (in terms of value produced per worker) lie outside the district proper. Thus, district Illinois contains only 5 per cent of the finished lumber industry in that state, and many of the highly productive lines are concentrated outside of the district.[3]

Thus the following discussion should be interpreted with care and with these points in mind: (1) Aggregate figures for the seven-state industry group and for individual lines are not representative of the district proper; and (2) the proportion of a particular line in the district pattern may be different from that for the entire region; but (3) the data on relationships of employment to value of production and value added for individual lines apply roughly to the district plants as well as to those outside the district; and (4) change from 1939 to 1946 for the industry as a whole and for the individual lines is as applicable to the district as the seven state area—in fact, expansion within the district in those years probably has been relatively greater than that within the entire area.

Since 1939, the number of plants in district states has increased considerably. Official comparable data are not available for years since 1939, but industrial directories published by some of the individual states show a growing industry. In Arkansas, for example, 192 finished lumber products plants were listed in 1946, which compares with 69 in the 1939 Census of Manufacturers. A similar source reports 144 establishments in Mississippi as compared with 41 in 1939. In Missouri, 395 plants are listed as compared with 221 prior to the war, and in Tennessee the latest directory lists 337 plants as compared with 156 in 1939.

Some of the newer finished wood products plants no doubt represent types of manufacturing activity that were not in existence in the region in 1939. However, it is not likely that the general structure of the finished wood products industry as a whole has been altered materially since 1939.

[3] About four-fifths of the Mississippi and Indiana industries lie in the more industrialized sections of those states outside the Eighth District. The district proper contains all of the Arkansas plants, 85 per cent of the Kentucky establishments, and 70 per cent of the Missouri plants. About one-third of the Tennessee industry is within the district proper.

In 1939, the value of furniture (excluding fixtures) produced in the district states represented about 50 per cent of the value of all finished wood products. The wood preserving industry ranked second in importance in the wood-using industries, although the value of output was less than the value of mattress production, which, for census purposes, is included in the general industry group. Production of caskets, partitions, and shelving and wood boxes ranked in that order of importance in terms of the value of production in 1939.

In mid-March, 1946 there were 1,231 plants in the district states engaged in the production of furniture and fixtures.[4] Included in the "fixtures" group are manufacturers of mattresses, venetian blinds, window and door screens, window shades, and the like. This represents an increase of 50 per cent in the number of furniture and fixture plants from 1939 to 1946. Employment increased from 50,000 to 65,000 during this period, while payrolls in the first three months of 1946 were at an unadjusted annual rate of $127 million, or 2.6 times larger than in 1939.

Most of the district plants and workers in 1946 were in Illinois and Indiana, these two states accounting for 62 per cent of the establishments, 60 per cent of the employment, and 75 per cent of the value of production. As noted earlier the great bulk of the industry in these states lies outside the district proper.

Most of the plants in the second most important wood processing industry in the district states—the wood preserving industry—were located in Illinois and Mississippi in 1939. Production in these two states accounted for about 60 per cent of the value of output in all district states wood preserving plants. These plants treat timber to protect it from rot, insects and other destructive agents.

Casket manufacturing plants were located in all district states, although production was concentrated in Illinois, Indiana and Missouri. Of the total production valued at almost $19 million, about 95 per cent was from plants in these three states.

Noted earlier was the fact that the Eighth District contained a considerably smaller number of finished lumber products establishments than of the basic timber establishments. This unbalance results in the district losing a substantial amount of income that would accrue if the manufacturing process were carried further in this area.

[4] Based on reports submitted by companies under the Old Age and Survivors Insurance program. Data contained in published summaries of these reports are not strictly comparable with 1939 Census of Manufacturers figures but the latter can be regrouped to arrive at reasonably comparable estimates.

Illustrative of this point, the value of production per worker in the basic timber industry in the seven states in 1939 was roughly $2,700, and the value added per worker was about $1,400. Contrasted with these figures were a per worker value of production in finished lumber of $4,200 and per worker value added of $2,000.

Under present conditions of very high demand for raw lumber, the spread between output per worker in the basic and finished lumber lines probably is appreciably narrower. Nevertheless, as a long-run measure, it would seem desirable to increase substantially the finished lumber industry in this area. Similarly other wood-using lines might well be expanded. This point will be discussed at greater length in the succeeding article.

Lumber Requirements—As indicated earlier, a substantial amount of the lumber required by the finished wood products plants is produced in the state in which the plants are located, or in other of the district states. Part of the requirements, however, involve species not grown in the area. It is difficult to measure lumber requirements of manufacturers of wood products, of other manufacturers using wood as a raw material, or total lumber requirements, including the amount used in construction, shipping, and for other nonprocessing uses. Estimates of industrial requirements are available for certain years. No estimates of construction requirements are available for the individual states.

A partial picture of lumber requirements can be obtained from the U. S. Forest Service survey of lumber used in manufacture in 1940. Tabulations based on this report are shown in Table I. These figures show "the quantity of wood used in 1940 by the so-called secondary wood-using industries—industries such as box factories, furniture factories, car shops, pattern shops, etc., which do not as a class obtain their raw material directly from the forest."[5]

The largest demand for softwood lumber in 1940 was for southern yellow pine. About 53 per cent of the softwood used was of that variety, with requirements totaling 425 million board feet. This type of pine was used largely in the manufacture of boxes, baskets, crating, flooring, millwork, and in the construction and repair of railway cars. Production of southern pine lumber in the area was considerably larger than industrial requirements. However, it should be borne in mind that the amount of lumber used in construction and for other non-

[5] Lumber used in manufacture, 1940, U. S. Forest Service.

TABLE I
ESTIMATED LUMBER REQUIREMENTS OF WOOD-USING INDUSTRIES IN DISTRICT STATES, 1940
(Millions of board feet)

	Total	Softwood	Hardwood
TOTAL ALL REQUIREMENTS*	2,146	802	1,344
Flooring	603	44	559
Boxes, baskets and crating	553	310	243
Furniture	277	16	261
Car construction and repair	201	183	18
Millwork	177	134	43
Handles	53	1	52
Motor vehicles	50	10	40
Caskets and burial boxes	40	34	6
Agricultural implements	25	8	17
Refrigerators	15	9	6
Fixtures	15	3	12
Radio and phonograph cabinets	12	......	12
Vehicles, nonmotor	12	2	10
Musical instruments	11	1	10
Toys	10	6	4
Patterns and flasks	9	8	1
Playground equipment	8	7	1
Ladders	6	6	......
Pencils and penholders	4	4	......
Signs, scenery and displays	3	3	......
All other	62	13	49

* Excludes 124 million board feet of veneer and 62 million board feet of bolts and logs required in 1940.
Source: "Lumber Used In Manufacture, 1940", U. S. Forest Service.

manufacturing purposes and in the paper and chemical lines is not included in these aggregates.

Second softwood species in order of demand in 1940 was Ponderosa pine, of which 126 million board feet were required. Consumption of this species was almost exclusively in factories in Illinois and Indiana where it was used in the manufacture of boxes, millwork, toys, and fixtures. This type of pine is not grown in the district states; consequently all lumber requirements must be met by imports from other states, principally from the west coast states.

The supply situation with respect to Douglas fir lumber, the type next most important in terms of demand, is similar to that of Ponderosa pine. About 104 million board feet of this lumber, produced principally on the west coast, were used in the district states in 1940, largely in Illinois, Indiana, and Missouri. Most of it went into car construction and repair, millwork, boxes, baskets and crating, and ladders.

These three softwood species accounted for 80 per cent of the total softwood lumber required. Northern white pine, spruce, and cypress accounted for the bulk of the remaining 20 per cent. Production of cypress lumber in the district states was in excess of these requirements in 1940, and some types of spruce lumber were produced in quantities approximating requirements. However, northern white pine requirements have to be met by imports from other states.

Production of most types of hardwood lumber in the district states is equal to or is in excess of requirements of manufacturers in these states. About 47 per cent of the hardwood lumber used in 1940 was oak, of which production in the seven states was substantially larger than requirements. A total of 642 million board feet was required, of which 80 per cent was used in the manufacture of flooring. The remainder was used largely for furniture, boxes, baskets and crating, car construction and millwork. Most of the flooring was manufactured in Arkansas and Tennessee, the two states which accounted for more than three-fourths of the oak lumber produced in the district states.

Red and sap gum requirements, totaling 174 million board feet, represented 12 per cent of all hardwood lumber used in the wood products industries in 1940. Average production in 1939-41 was slightly in excess of requirements and originated chiefly in Arkansas, Mississippi and Tennessee. These species of gum are used primarily in the manufacture of furniture and boxes, baskets and crating in Arkansas, Illinois and Indiana.

Requirements of maple lumber were next in size in 1940, amounting to 130 million board feet, or nearly 10 per cent of the total hardwood demand. This species has a wide variety of uses, including flooring, furniture, millwork, boxes, baskets and crating, and toys. Average production in 1939-41 was less than half as large as requirements in 1940, and was centered in Indiana, Tennessee, and Kentucky, although relatively smaller quantities were produced in the other states.

THE PAPER AND ALLIED PRODUCTS INDUSTRY

This industry differs from the basic and finished lumber lines in that chemical as well as physical change is involved in processing the raw material into intermediate and final products. In terms of employment, the industry is not as important as the others in the seven-state area and the district proper, but it does represent a major district activity and offers considerable possibilities for expansion.

As classified by the Census, the industry consists first of pulp mills which transform raw wood into wood pulp and are the basic processors for the group. Intermediate products are produced from the pulp at paper and paperboard mills. Final products include paperboard containers, fiber cans, paper bags, die-cut paper, coated and glazed paper, envelopes, wallpaper, and miscellaneous converted paper products.

The war saw expansion in this industry, but (aside from Illinois experience) it was mostly in terms of expansion of existing plants rather than establishment of new ones. Consequently the 1939 pattern in the district states is fairly applicable to the present time.

In 1939, the industry in the seven-state area consisted of 450 establishments, with 32,000 wage earners turning out well over $200 million value of production. By 1946, there were about 580 establishments and almost 60,000 wages earners (90 of the additional establishments were in Illinois). About one-fourth of the seven-state area plants are located in the Eighth District proper, most of them (aside from pulp mills) in the St. Louis, Louisville, and Memphis industrial areas.

Lumber requirements for the paper and allied products industry are in terms of pulp mill requirements and, generally speaking, pulp mills need extensive holdings of timber to assure operations. Proper forest management is a "must" for pulp producers because pulp mills are expensive and are long-term ventures.

In 1939, there were but 11 pulp mills in the seven district states combined, and because of the Census disclosure rule, there is little published data on employment, payrolls or output. There were 49 paper and paperboard mills in the district states in that year, most of them lying outside the district proper in Illinois and Indiana. In the 38 mills in those two states, employment in 1939 was 5,500 persons, and production was $42 million in goods which included a value added by manufacture of $20 million. Per worker value produced thus was $7,500 and value added $3,600.

More than 200 paperboard container plants were in the district states in 1939 with about one-third in the district proper. The balance of the establishments in the industry produced items mentioned above: bags, various types of paper stock, envelopes, etc. The great bulk of these plants lay outside the district.

OTHER WOOD-USING INDUSTRIES

Wood is also used in a variety of other industries. The table on wood requirements gives some indication of lines not included in the basic or finished lumber and paper industries. It does not include, however, the chemicals industry which uses wood to produce turpentine, charcoal and many other products.

These wood distillation lines do not occupy a very prominent position within the district proper, although there are a few plants engaged in such operations. Because of the small number of establishments, Census data, even on a state basis, are not available for the industry since it would violate the Census disclosure rules. There are possibilities for industrial expansion in these lines, and some of them will be pointed out in a subsequent article.

Weldon H. Stein.

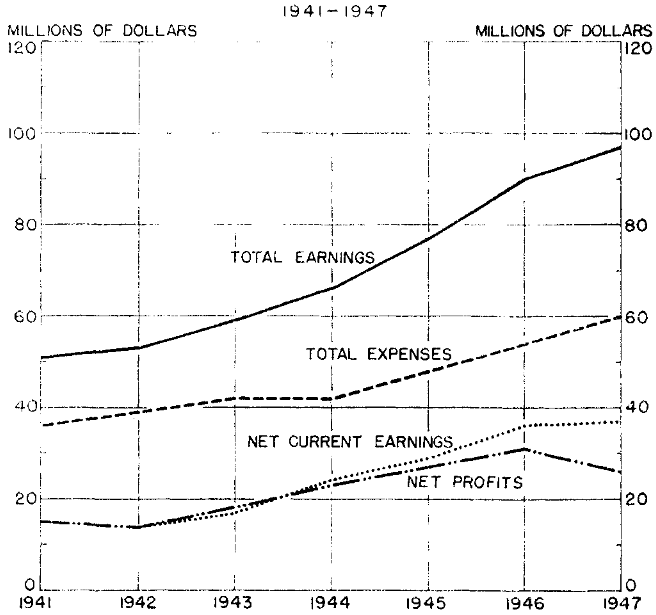
Member Bank Earnings in 1947

Total earnings of Eighth District member banks in 1947 were substantially larger than in 1946, and income tax liabilities were smaller, but increased operating expenses and net charge-offs resulted in a substantial decline in net profits after taxes. Capital accounts increased and the ratio of net profits after taxes to capital accounts declined appreciably from 1946 to 1947. The capital-deposit ratio rose, but with the rise in loans the ratio of capital to risk assets declined.[1]

The chart shows total earnings, total expenses, net current earnings and net profits for the years 1941 through 1947. It may be noted that total earnings have increased steadily but total expenses also have grown steadily. The curve of net current earnings (the difference between operating earnings and expenses) slants upward, indicating that earnings have grown faster than expenses, dollarwise, but the curve of net profits (which reflects net recoveries or charge-offs and income taxes) is much more flat and actually turns downward in 1947.

SELECTED EARNING REPORT ITEMS OF EIGHTH DISTRICT MEMBER BANKS

1941–1947



[1] The table on pages 36 and 37 shows the operating ratios of Eighth District member banks for 1947. The banks are divided into eight size classes on the basis of average deposits. Ratios for each class and for all member banks combined are averages of individual bank ratios, thus avoiding undue weighting of larger banks. The average ratio for size class and for all member banks, however, still masks substantial differences among individual banks. For that reason, the range of the middle 50 per cent of ratios is shown also. It should be noted that this is not the range of all bank ratios. In each size class the individual bank ratios were arrayed in order and the extreme upper and lower fourth eliminated, leaving the middle 50 per cent which the table presents.

AVERAGE OPERATING RATIOS OF MEMBER BANKS, 1947

EIGHTH FEDERAL RESERVE DISTRICT

Banks with Average Deposits of	Up to $500,000		$500,000 to $1,000,000		$1,000,000 to $2,000,000		$2,000,000 to $5,000,000		$5,000,000 to $10,000,000		$10,000,000 to $25,000,000		$25,000,000 to $50,000,000		$50,000,000 and Over		All District Member Banks
	Average of Group %	Range within which fell middle 50% of the banks %	Average of Group %	Range within which fell middle 50% of the banks %	Average of Group %	Range within which fell middle 50% of the banks %	Average of Group %	Range within which fell middle 50% of the banks %	Average of Group %	Range within which fell middle 50% of the banks %	Average of Group %	Range within which fell middle 50% of the banks %	Average of Group %	Range within which fell middle 50% of the banks %	Average of Group %	Range within which fell middle 50% of the banks %	Average of Group %
SUMMARY RATIOS																	
Percentage of Total Capital Accounts:																	
Net current earnings before income taxes	**6.9**	2.1— 12.5	**12.5**	7.8— 15.5	**14.9**	10.7— 19.0	**16.5**	12.2— 20.4	**17.0**	13.2— 20.7	**14.5**	11.3— 18.0	**13.7**	10.8— 17.7	**12.9**	10.5— 14.8	**15.4**
Profits before income taxes	**6.3**	2.1— 11.4	**12.1**	8.6— 15.7	**14.4**	10.0— 18.5	**15.1**	11.3— 18.8	**15.5**	11.4— 19.6	**13.4**	10.3— 15.9	**12.7**	10.6— 15.2	**12.3**	10.3— 14.6	**14.4**
Net Profits	**5.5**	1.5— 10.2	**10.2**	7.0— 13.4	**11.8**	8.6— 15.1	**11.9**	8.8— 15.7	**11.2**	7.7— 14.2	**9.4**	7.0— 12.8	**9.2**	6.9— 10.7	**8.7**	7.0— 10.4	**11.2**
Cash dividends declared	**2.3**	..— 0.4	**2.3**	1.6— 3.1	**2.9**	2.0— 3.6	**3.0**	2.1— 3.7	**3.1**	2.3— 3.9	**2.9**	2.4— 3.6	**3.3**	2.5— 3.9	**3.3**	2.5— 4.2	**2.9**
Percentage of Total Assets:																	
Total earnings	**2.6**	2.0— 3.3	**2.2**	1.8— 2.5	**2.2**	1.8— 2.4	**2.2**	1.9— 2.5	**2.2**	1.9— 2.4	**2.1**	1.8— 2.2	**2.0**	1.9— 2.2	**1.8**	1.7— 2.1	**2.2**
Net current earnings before income taxes	**0.8**	0.2— 1.3	**0.9**	0.6— 1.1	**0.9**	0.6— 1.2	**0.9**	0.7— 1.0	**0.9**	0.7— 1.0	**0.7**	0.5— 0.8	**0.7**	0.5— 0.9	**0.7**	0.6— 0.9	**0.9**
Net profits	**0.6**	0.1— 1.0	**0.7**	0.5— 0.9	**0.7**	0.5— 1.0	**0.6**	0.5— 0.8	**0.6**	0.4— 0.7	**0.5**	0.3— 0.6	**0.5**	0.4— 0.7	**0.5**	0.4— 0.6	**0.6**
SOURCES AND DISPOSITION OF EARNINGS																	
Percentage of Total Earnings:																	
Interest on U. S. Government securities	**25.1**	12.1— 39.0	**38.7**	30.6— 47.3	**41.3**	29.4— 52.4	**39.8**	30.0— 49.1	**35.8**	26.7— 45.0	**38.2**	28.8— 46.2	**33.8**	24.2— 44.2	**29.3**	19.8— 36.2	**38.6**
Interest and dividends on other securities	**10.4**	1.4— 15.5	**3.6**	0.6— 4.3	**5.1**	1.0— 8.0	**6.4**	1.9— 8.9	**8.0**	2.7— 11.7	**6.8**	3.2— 10.0	**7.8**	0.8— 12.8	**6.4**	2.2— 11.0	**6.3**
Earnings on loans	**59.3**	43.1— 84.5	**47.0**	37.0— 57.0	**42.9**	29.6— 53.7	**41.6**	30.7— 53.3	**41.3**	30.8— 51.8	**38.6**	26.8— 52.7	**42.3**	29.1— 52.7	**49.0**	41.0 56.4	**42.5**
All other earnings	**5.2**	1.6— 8.9	**10.7**	6.2— 14.9	**10.7**	5.4— 15.3	**12.2**	7.0— 16.7	**14.9**	9.7— 19.2	**16.4**	10.4— 20.3	**16.1**	10.1— 20.5	**15.3**	9.5— 23.8	**12.6**
Total earnings	**100.0**	XXX	**100.0**	XXX	**100.0**	XXX	**100.0**	XXX	**100.0**	XXX	**100.0**	XXX	**100.0**	XXX	**100.0**	XXX	**100.0**
Service charges on deposit accounts (included in item 11) (1)	**3.1**	1.9— 4.0	**6.5**	1.8— 7.7	**5.1**	2.3— 7.0	**5.7**	2.0— 8.7	**5.7**	2.7— 7.3	**6.2**	3.6— 8.2	**4.7**	3.3— 5.9	**3.0**	1.4— 3.8	**5.5**
Salaries and wages	**38.5**	26.3— 56.8	**30.4**	25.7— 34.4	**27.9**	23.4— 30.6	**28.2**	24.3— 31.9	**28.4**	24.5— 31.6	**30.6**	26.2— 34.3	**30.5**	26.4— 36.1	**30.4**	27.0— 33.6	**28.7**
Interest on time and savings deposits	**8.2**	....— 18.8	**6.2**	....— 10.2	**6.8**	0.8— 11.1	**8.2**	0.9— 11.8	**8.8**	3.7— 13.1	**12.3**	6.1— 18.6	**7.9**	3.3— 11.7	**6.1**	2.9— 7.3	**8.1**
All other expenses (2)	**29.1**	21.5— 36.8	**25.7**	20.2— 30.2	**24.4**	19.4— 26.6	**23.7**	20.4— 26.9	**22.6**	18.4— 26.6	**23.6**	20.4— 27.6	**26.2**	22.1— 32.0	**25.6**	22.8— 28.0	**24.0**
Total expenses (2)	**75.8**	60.7— 92.7	**62.3**	53.8— 68.6	**59.1**	51.8— 65.1	**60.1**	53.6— 65.7	**59.8**	52.6— 67.0	**66.5**	61.2— 73.3	**64.6**	54.3— 72.4	**62.1**	56.3— 68.7	**60.8**
Net current earnings before income taxes	**24.2**	7.3— 39.3	**37.7**	31.4— 46.2	**40.9**	34.9— 48.2	**39.9**	34.3— 46.4	**40.2**	33.0— 47.4	**33.5**	26.7— 38.8	**35.4**	27.6— 45.7	**37.9**	31.3— 43.7	**39.2**
Net recoveries (+), charge-offs (—)	**—1.6**	— 3.5—	**—0.6**	— 3.5—+3.0	**—1.3**	— 3.5—+1.3	**—2.4**	— 6.6—+1.9	**—3.0**	— 7.2—+0.7	**—2.2**	— 6.2—+1.2	**—2.2**	— 8.3—+2.6	**—1.3**	— 4.4—+3.0	**—2.1**
Income taxes	**3.0**	0.8— 4.3	**5.8**	4.4— 7.4	**7.0**	5.1— 9.4	**7.7**	5.2— 9.8	**10.2**	6.2— 13.6	**9.2**	7.1— 11.0	**9.2**	5.8— 11.5	**10.7**	7.7— 14.4	**8.0**
Net profits	**19.6**	5.0— 33.9	**31.3**	23.2— 40.0	**32.6**	26.6— 40.4	**29.8**	23.5— 36.7	**27.0**	19.8— 34.0	**22.1**	17.9— 27.0	**24.0**	17.4— 29.2	**25.9**	21.9— 29.9	**29.1**
RATES OF EARNINGS ON SECURITIES AND LOANS																	
Percentage of U. S. Government Securities:																	
Interest on U. S. Government securities	**1.8**	1.6— 2.2	**1.7**	1.4— 1.9	**1.6**	1.4— 1.9	**1.6**	1.4— 1.8	**1.6**	1.4— 1.8	**1.5**	1.3— 1.6	**1.5**	1.4— 1.6	**1.4**	1.2— 1.5	**1.6**
Percentage of Other Securities:																	
Interest and dividends on other securities	**3.3**	1.7— 5.2	**3.1**	2.0— 4.3	**2.9**	1.7— 3.5	**2.5**	1.7— 3.0	**2.1**	1.5— 2.5	**2.2**	1.4— 2.5	**2.7**	1.3— 3.2	**2.6**	1.9— 3.3	**2.6**
Percentage of Total Securities:																	
Net recoveries on securities (+), charge-offs (—) (3)	....	.—+0.1	.	. .—		..— ...	. .	— 0.1— ...	...	— 0.1— . .	...	...— . .		— 0.1—+0.1	...	— 0.1—+0.2	....
Percentage of Total Loans:																	
Earnings on loans	**6.0**	5.4— 6.5	**6.0**	5.5— 6.3	**5.8**	5.0— 6.4	**5.5**	4.9— 6.1	**5.1**	4.6— 5.5	**4.4**	3.9— 4.9	**4.0**	3.5— 4.3	**3.2**	2.7— 3.3	**5.4**
Net recoveries on loans (+), charge-offs (—)	**—0.2**	— 0.3— ...	**+0.1**	—0.1—+0.2	**—0.1**	— 0.1—	**—0.1**	— 0.1— ...	. .	— 0.1—+0.1	**—0.1**	— 0.1— ...	**—0.1**	— 0.3— ...	**—0.1**	— 0.2 ...—	**—0.1**
DISTRIBUTION OF ASSETS																	
Percentage of Total Assets:																	
U. S. Government securities	**31.4**	9.7— 51.8	**48.8**	43.0—56.5	**51.4**	43.5— 60.4	**51.1**	44.8— 59.0	**47.7**	38.5— 55.3	**51.5**	44.9— 58.9	**44.0**	32.2— 53.0	**38.1**	31.4— 41.2	**49.6**
Other securities	**5.4**	2.5— 9.0	**3.5**	0.5— 3.1	**5.0**	0.8— 7.7	**6.2**	1.8— 9.0	**9.2**	2.7— 13.2	**7.2**	3.3— 10.5	**7.1**	0.6— 11.6	**5.0**	1.8— 8.0	**6.3**
Loans	**27.8**	15.3— 44.9	**17.9**	13.1— 21.4	**17.1**	9.9— 21.6	**17.2**	11.1— 21.9	**18.8**	12.7— 22.6	**19.3**	9.9— 24.0	**22.5**	12.5— 28.2	**29.5**	26.9— 35.4	**18.3**
Cash assets	**34.8**	24.9— 41.9	**29.2**	23.3— 33.4	**26.1**	21.2— 29.7	**24.9**	21.1— 28.3	**23.6**	20.1— 25.9	**21.1**	15.9— 24.4	**25.4**	21.8— 30.3	**26.7**	25.6— 29.0	**25.2**
Real estate assets	**0.6**	0.2— 0.9	**0.5**	0.1— 0.6	**0.4**	0.1— 0.6	**0.5**	0.2— 0.7	**0.6**	0.3— 0.8	**0.8**	0.5— 1.1	**0.8**	0.5— 1.1	**0.4**	0.2— 0.6	**0.5**
All other assets	...	....— 0.1	**0.1**	....—....	.	...— 0.1	**0.1**	...— ...	**0.1**	...— 0.2	**0.1**	...— 0.3	**0.2**	0.1— 0.3	**0.3**	0.2— 0.4	**0.1**
CAPITAL AND DEPOSIT RATIOS—In Percentage																	
Capital accounts to total assets	**11.2**	10.1— 12.2	**7.1**	5.9— 7.9	**6.3**	5.2— 7.5	**5.6**	4.5— 6.4	**5.6**	4.6— 5.9	**5.0**	4.2— 5.3	**5.4**	4.7— 5.7	**5.5**	4.7— 6.4	**5.9**
Capital accounts to total assets less Government and cash assets	**39.9**	22.9— 52.9	**38.8**	26.6— 48.0	**33.6**	22.3— 39.2	**28.2**	18.4— 33.3	**22.6**	14.6— 25.2	**22.2**	13.7— 30.6	**20.1**	13.5— 27.1	**16.2**	14.2— 18.7	**28.4**
Capital accounts to total deposits	**12.7**	11.2— 13.9	**7.7**	6.3— 8.6	**6.8**	5.4— 7.8	**6.0**	4.7— 6.8	**6.0**	4.8— 6.3	**5.3**	4.3— 5.6	**5.7**	4.9— 6.1	**5.9**	5.0— 6.9	**6.3**
Time to total deposits	**19.7**	2.6— 36.5	**15.0**	2.4— 26.8	**16.5**	2.7— 25.0	**20.4**	4.8— 29.7	**24.1**	10.0— 31.1	**37.8**	26.2— 55.9	**21.1**	12.8— 28.0	**16.3**	8.3— 19.0	**20.9**
Interest to time deposits (1)	**1.3**	0.6— 1.9	**1.0**	0.8— 1.5	**0.9**	0.7— 1.0	**0.9**	0.8— 1.0	**0.9**	0.8— 1.0	**0.8**	0.6— 0.9	**0.8**	0.6— 0.9	**0.7**	0.6— 0.9	**0.9**
Number of Banks	6		38		113		189		79		37		14		15		491

(1) Banks reporting zero amounts were excluded in computing this average and range.

(2) Includes charge-offs for recurring depreciation on banking house, furniture, and fixtures.

(3) Includes profits or losses from sales of securities.

NOTE: Balance sheet figures used as a basis for ratios are averages of amounts reported for December 31, 1946, June 30 and October 6, 1947.

Changes in Earning Assets—Banks derive their current earnings mainly from their security holdings and the loans they make to their customers. Other sources of current earnings include service charges and fees in connection with loans, service charges on deposit accounts, income from trust departments, real estate divisions, etc., and a variety of miscellaneous charges, commissions and fees.

Over the past seven years Eighth District member banks have registered great changes both in absolute volume of security holdings and loans and in the relative proportions held. In 1947, earning assets (loans and investments) amounted to 74.2 per cent of total assets; in 1941 the ratio was 61.7 per cent.

In 1947, Eighth District member bank combined loans and investments increased. The rise in total loans and investments was common to all years, 1941 to 1947, with the exception of 1946, but the pattern of change differed from that of previous years. Total investments expanded in each year through 1945 and then declined in 1946 and 1947. Total loans declined from 1941 to 1942, rose again in 1943 and 1944 (but failed to reach the 1941 level) and then expanded sharply in the following three years. In 1946 the growth in loans failed to offset the decrease in security holdings; in 1947 loan expansion exceeded contraction in investments.

The rise in investments from 1941 through 1945 stemmed from the heavy wartime expenditures of Government, much of which had to be met by borrowing from the banks. Government security holdings of all Eighth District member banks totaled $424 million at the end of 1941 and $2.7 billion at the end of 1945, a more than five-fold increase. Relative to total assets, holdings of Government securities averaged 21.9 per cent during 1942 and 52.8 per cent during 1945.

The Treasury redemption program, begun in March, 1946, brought about a substantial reduction in bank holdings of Government securities. By the close of the year, district bank portfolios were $500 million less than a year earlier, and in 1947 they dropped another $200 million.

While Government securities were becoming the major source of income during the war years, loans were declining in relative importance, although dollar volume declined in only one year, 1942. As a proportion of total assets, loans declined steadily from 1941 through 1945. In 1941 outstanding loans averaged 34.8 per cent of total assets, but by 1945 had dropped to 12.1 per cent. In 1946 loan volume averaged 13.8 per cent of total assets, and in 1947 was 18.3 per cent.

As noted, Eighth District member bank loans and investments shifted substantially in relative importance in 1947, and this shift was common to banks of various sizes (in terms of average deposits). Generally speaking, the relative shift was more pronounced in the smaller banks than in the larger ones.

While Government security holdings at district banks declined from 1946 to 1947, both absolutely and relative to total assets, holdings of other securities increased. In dollar terms the gain was about $28 million from December, 1946 to December, 1947. Relative to total assets, the increase in average holdings in each year was from 5.1 per cent to 6.3 per cent. The gain was general, with all size-groups showing roughly similar changes in per cent of total assets in other securities, except for the very large banks (over $50 million deposits) where the proportion of total assets in other securities was the same in both years.

Cash assets as a proportion of total assets, declined slightly from 1946 to 1947 for Eighth District member banks as a whole, indicating a generally more full loan and investment position. At the larger banks, however, cash assets relative to total assets increased, with the rise more pronounced as the size of bank increased.

Sources of Earnings—The bulk of bank earnings comes from loans and investments, but the share of earnings from each of these sources is not the same as the asset distribution because of varying rates of return. Government securities generally yield a lower rate of return than do other securities, and those in turn a lower rate than do loans. Varying maturities yield different returns. Loans at small banks, being generally smaller than those at large banks, carry higher interest rates.

In 1947, Eighth District banks received 42.5 per cent of their current earnings from loans, 38.6 per cent from Government securities, 6.3 per cent from other securities and 12.6 per cent from other sources. Loans were the major source of income in 1947 at all size classes of banks. In 1946 loans ran second to Government securities as an income source.

In 1941 banks depended mainly on loans for income and obtained 60.3 per cent of total earnings from that source. Income from Government and other securities was secondary in importance and furnished banks with only 24.1 per cent of total earnings. During the war years the tremendous volume of war financing increased income from Government securities until in 1945 member banks obtained over half of their total income from Government and other securities. After 1942, income from loans when measured against total earnings declined in each year and by 1945 supplied only 32.3 per cent of earnings. The change in the character of earning assets in 1947 resulted in loans exceeding Government securities as the major source of income for the first time since 1943. Banks earned an average of 5.4 per cent on loans as compared with 1.6 per cent on Government securities. Very small banks had the highest rate of return on loans (6.0 per cent) but the rate declined as banks became larger in size and the very large banks earned only 3.2 per cent.

Other current earnings continued in 1947 the decline in relative importance evident since 1943, dropping from 18.0 per cent of total current earnings in that year to 12.6 per cent in 1947. The decrease reflects mostly the fact that other earnings are fairly constant from year to year and thus decline in relative importance as total earnings rise.

Disposition of Earnings—Salaries and wages constitute the largest single expense item for banks, and used up 28.7 per cent of total earnings in 1947. This percentage was slightly larger than in the previous year but aside from 1946 was the lowest since 1941, indicating that while the dollar amount paid in salaries and wages has increased in the last seven years, it has not increased as much as total earnings. In 1947 salaries and wages increased at a slightly faster rate than earnings at all groups of banks except those with deposits between $500,000 and $1 million. The percentage of earnings used to pay salaries and wages ranged from a low of 27.9 per cent to a high of 38.5 per cent among the various size classes, and the range within the size classes was even more pronounced.

All other operating expenses accounted for 32.1 per cent of current earnings in 1947, slightly less than a year earlier. Such expenses also have shown a definite downward trend relative to earnings since 1941, even though they have grown substantially in terms of dollars.

After operating expenses were paid, banks had about the same percentage of earnings left as in 1946. The average for all banks was 39.2 per cent and among size groups ranged from 24.2 per cent to 40.9 per cent. Net profits, however, declined sharply from 34.0 per cent of total earnings in 1946 to 29.1 per cent in 1947.

The failure of net profits to compare more favorably with those reported in 1946 was due to net charge-offs instead of recoveries. In every year between 1943 and 1946, Eighth District member banks showed recoveries and profits from sales of securities exceeding charge-offs. With the depression years' carry-over of charged off items reduced to a practical minimum and with profits from sales on Governments largely eliminated in 1947, items charged off in that year exceeded recoveries and profits from sales.

While 1947 net profits after income taxes and charge-offs were down from the 1946 peak, return on capital was still substantial and amounted to 11.2 per cent of total capital accounts. In 1941 the return was 8.0 per cent, and in 1942 it was but 6.5 per cent.

Member banks during the last seven years have enjoyed good profits and have retained a large part of these profits to increase their capital structures. Member banks distributed to their stockholders slightly over one-fourth of net profits earned in 1947.

Deposits expanded rapidly during the war years, and notwithstanding the banks' retention of the greater portion of their net profits the ratio of capital accounts to deposits steadily declined from 14.1 per cent in 1941 to 6.0 per cent in 1946. The ratio increased in 1947 to 6.3 per cent.

E. Francis DeVos.

SURVEY OF CURRENT CONDITIONS

The significance of the recent break in commodity prices is still far from clear, as this Review goes to press. Obviously the key question is which of three major alternatives is denoted by the price decline: (1) The long-awaited "readjustment" in prices which itself would aid in continuing high level activity; (2) a definite downturn to a lower level of activity; or (3) a temporary situation such as occurred last spring and fall and which signifies no real change in the inflationary potential.

The situation has not yet developed sufficiently to answer this question with any confidence, partly because the attitude of business and of consumers is still uncertain, partly because a host of subsidiary questions relative to taxes, wage demands, credit controls, etc. are still unanswered. Meanwhile, certain points should be noted carefully.

First, inflationary potentials, on balance, remain strong. We still have an excessive money supply which is supporting a total demand for goods unmatched by supply. Consumer income remains at near record levels and consumer credit continues to expand. Business demand for new plant and equipment is strong and foreign demand for our goods is still remarkably high.

Second, the fact that the recent price decline was concentrated in farm and food prices is significant. If sustained, lower food processing costs should be reflected in lower retail food prices. At the present time the food bill constitutes a larger proportion than usual of the average consumer's budget for expenditures. If retail food prices generally should level off at even 10 per cent below the highs of recent months, consumers' monthly costs for the basic necessities would be lowered appreciably. With less money required for food, consumers should have more money available to buy other types of goods.

Third, it should be observed that many manufacturers can look forward to only slightly lower raw materials costs as a result of the commodity price decline in January and February. Average industrial raw materials prices on March 1, as measured by the Bureau of Labor Statistics cash price index, were only 5 per cent below the January peak as compared with declines of 13 per cent in prices of foodstuffs and 11 per cent in agricultural commodities. It is important to note that the decline in average industrial raw materials prices did not reflect a general lowering of prices for materials of this type. Decreases occurred only in the rosin, hides, rubber, print cloth and burlap components of the index. Prices of other and more important raw materials, including nonferrous metals, steel scrap, wool, silk and shellac were unchanged or higher than at the January peak. Consequently, since even the minor decline in average industrial raw materials prices was concentrated in a relatively few commodities, manufacturers' cost in many industries, and prices consumers pay for their finished products, are not likely to reflect the recent decline in the grain markets.

Finally, it will be increasingly important to watch the actions of business men and consumers as a result of this break in commodity prices. How much of the super-optimism that prevailed at the end of the year has been changed into pessimism cannot be measured as yet. Depressions do not occur solely because of consumer and business attitude but such attitude does accentuate swings in economic activity.

EMPLOYMENT

Employment in the nation and in the Eighth District decreased between December and January, principally as the result of seasonal decreases in retail trade, Government service, and construction industries. January, 1948 employment in the district was approximately 3 per cent higher than in January, 1947.

The employment decrease in the St. Louis area between November and January was principally the result of seasonal drops in trade and construction employment. Manufacturing employment remained stable as increases in the apparel and leather indus-

CONSUMPTION OF ELECTRICITY

(K.W.H. in thous.)	No. of Customers*	Jan., 1948 K.W.H.	Dec., 1947 K.W.H.	Jan., 1947 K.W.H.	Jan., 1948 Compared with Dec., '47	Jan., 1948 Compared with Jan., '47
Evansville	40	8,849	9,081	8,244 R	— 3%	+ 7%
Little Rock	35	4,345	4,781	3,634 R	— 9	+ 20
Louisville	80	63,666	63,102	57,745 R	+ 1	+ 10
Memphis	31	5,372	5,296	5,600	+ 1	— 4
Pine Bluff	24	6,350	6,953	1,545	— 9	+311
St. Louis	99	74,642	69,901	73,084 R	+ 7	+ 2
Totals	309	163,224	159,114	149,852 R	+ 3%	+ 9%

* Selected industrial customers.
—R—Revised.

LOADS INTERCHANGED FOR 25 RAILROADS AT ST. LOUIS

Jan., '48	Dec., '47	Jan., '47	First Nine Days Feb., '48	First Nine Days Feb., '47	1 mo. '48	1 mo. '47
120,723	121,381	123,390	33,341	37,209	120,723	123,390

Source: Terminal Railroad Association of St. Louis.

CRUDE OIL PRODUCTION

(In thousands of bbls.)	Jan., '48	Dec., '47	Jan., '47	Jan., '48 compared with Dec., '47	Jan., '48 compared with Jan., '47
Arkansas	87.3	85.9	78.7	+ 2%	+11%
Illinois	171.3	176.7	196.6	— 3	—13
Indiana	17.7	18.3	17.9	— 3	— 1
Kentucky	26.7	27.7	28.8	— 4	— 7
Total	303.0	308.6	322.0	— 2%	— 6%

tries offset decreases in transportation equipment. Relatively large gains are anticipated (according to employers' estimates) for the next four months in manufacturing, construction, trade and service employment, with the automobile and aircraft industries expected to hire the most new workers.

In Louisville, employment reached a postwar high in December but by January dropped back to about the November level. This drop occurred principally in the trade and distilleries industries. The Kentucky State Employment Service reports that employment is expected to remain constant during the next two months as increases in manufacturing will be offset by decreases in nonmanufacturing.

In Memphis, employment has remained relatively stable for the past few months, but is expected to increase in the future as new plants get into full production. In Evansville, employment rose slightly between November and January, and is expected to continue to increase gradually during the next four months. In Little Rock, nonagricultural employment decreased during January as the result of seasonal declines in retail trade, food, lumbering, and construction industries. Employment is expected to grow by May as increases in instrument, lumber and apparel manufacturing are expected to more than offset declines in cotton oil mill operations and retail trade activity.

INDUSTRY

The level of industrial activity in the Eighth District in January was not much changed from December. Manufacturing operations in many parts of the district were interrupted during the latter part of the month as a result of adverse weather conditions but apparently averaged higher than in December. Coal production increased but oil output was slightly less than in the preceding month. New construction begun in January, as measured by the value of building permits awarded, declined sharply but on-site activity on projects begun late last year remained at a fairly high level.

Total industrial power consumption in the major district cities in January increased 3 per cent over December and 9 per cent over January, 1947. The increase was concentrated in St. Louis, where industries used 7 per cent more electrical power than in the previous month. When adjusted to a daily average basis, power consumption by industries in Memphis, Louisville, and Evansville increased slightly, while decreases were registered in the other reporting cities. Power consumption in most of the industrial areas was affected by the severe cold wave in the latter part of the month, which resulted in fuel gas shortages and temporary suspensions of production in a number of industries.

Manufacturing—General manufacturing activity was at a high level in January, but in certain of the district cities aggregate output of some industries was curtailed because of the lack of fuel gas. Industries in which operations increased over December included those manufacturing lumber products, automobiles, chemicals, machinery, metals and metal products, and transportation equipment. Declines were indicated in the manufacture of food products, whiskey, meat packing, and stone, clay and glass products.

Steel—Scheduled operations of the basic steel industry in the St. Louis area in January were at 77 per cent of capacity, a slight drop from the 81 per cent in December, but a considerable increase over the 58 per cent of January of last year. The decrease resulted from an acute scrap shortage during the latter part of the month.

Lumber—According to preliminary estimates, lumber production in January showed slight gains over December and January, 1947. Reporting southern hardwood mills were operating at 76 per cent of capacity, compared with 68 per cent in December and 73 per cent in January a year ago. Average production of southern pine mills in January was the same as in December and about 8 per cent above that of January, 1947.

Whiskey—At the close of January, 24 distilleries were in operation in Kentucky, compared with 58 at the same time a year ago and 38 at the end of December. While awaiting Congressional action, distillers in the main have voluntarily restricted production, using grain at a rate equivalent to about 3 to 4 million bushels per month. This program would permit operations at about 50 per cent of capacity, which probably would produce enough whiskey to meet requirements.

Whiskey production in Kentucky in December, when the grain-saving program was in full force, totaled only 403,000 tax gallons, less than 4 per cent of production in December, 1946.

Shoe Production—District shoe production in December totaled 8.3 million pairs according to preliminary estimates. This was 9 per cent above

BUILDING PERMITS
(Month of January)

(Cost in thousands)	New Construction				Repairs, etc.			
	Number		Cost		Number		Cost	
	1948	1947	1948	1947	1948	1947	1948	1947
Evansville	58	51	$ 112	$ 139	56	55	$ 45	$ 43
Little Rock	71	92	785	596	108	127	88	63
Louisville	70	151	537	796	36	42	68	35
Memphis	607	552	2,730	1,188	95	135	115	99
St. Louis	202	175	923	1,130	147	191	256	496
Jan. Totals	1,008	1,021	$5,087	$3,849	442	550	$572	$736
Dec. Totals	1,399	658	$7,569	$2,134	440	420	$774	$507

TRADE

DEPARTMENT STORES

	Net Sales Jan., '48 compared with Dec., '47	Jan., '47	Stocks on Hand Jan. 31, '48 comp. with Jan. 31, '47	Stock Turnover Jan. 1 to Jan. 31, 1948	1947
Ft. Smith, Ark.	—56%	— 1%	+ 1%	.31	.30
Little Rock, Ark.	—57	— 3	+17	.32	.34
Quincy, Ill.	—54	+ 3	+19	.29	.29
Evansville, Ind.	—55	+14	— 2	.26	.24
Louisville, Ky.	—58	+ 8	+10	.34	.33
St. Louis Area1	—49	+11	— 1	.32	.29
St. Louis, Mo.	—49	+10	— 2	.33	.29
E. St. Louis, Ill.	—17	+42	....	......	......
Springfield, Mo.	—54	+ 4	+12	.24	.28
Memphis, Tenn.	—60	— 6	+21	.26	.32
*All other cities	—58	+ 4	+24	.22	.26
8th F. R. District	—53	+ 6	+ 6	.30	.30

* El Dorado, Fayetteville, Pine Bluff, Ark.; Harrisburg, Jacksonville, Mt. Vernon, Ill.; New Albany, Vincennes, Ind.; Danville, Hopkinsville, Mayfield, Paducah, Ky.; Chillicothe, Mo.; and Jackson, Tenn.

1 Includes St. Louis, Mo., East St. Louis, Alton and Belleville, Ill.

Trading days: January, 1948—26; December, 1947,—26; January, 1947—26.

Outstanding orders of reporting stores at the end of January, 1948, were 3 per cent greater than on the corresponding date a year ago.

Percentage of accounts and notes receivable outstanding January 1, 1948, collected during January, by cities:

	Instalment Accounts	Excluding Instalment Accounts		Instalment Accounts	Excluding Instalment Accounts
Fort Smith	....%	51%	Quincy	29%	64%
Little Rock	23	51	St. Louis	31	54
Louisville	24	51	Other cities	23	54
Memphis	29	48	8th F. R. Dist.	28	52

INDEXES OF DEPARTMENT STORE SALES AND STOCKS

8th Federal Reserve District

	Jan., 1948	Dec., 1947	Nov., 1947	Jan., 1947
Sales (daily average), Unadjusted [2]	239	516	428	228
Sales (daily average), Seasonally adjusted [2]	292	337	339	278
Stocks, Unadjusted [3]	265	250	310	250
Stocks, Seasonally adjusted [3]	308	297	290	291

[2] Daily Average 1935-39=100

[3] End of Month Average 1935-39=100

SPECIALTY STORES

	Net Sales Jan., '48 compared with Dec., '47	Jan., '47	Stocks on Hand Jan. 31, '48 comp. with Jan. 31, '47	Stock Turnover Jan. 1 to Jan. 31, 1948	1947
Men's Furnishings	—61%	+ 2%	+13%	.25	.27
Boots and Shoes	—43	+ 7	+41	.32	.35

Percentage of accounts and notes receivable outstanding January 1, 1948, collected during January:

Men's Furnishings......47% Boots and Shoes......47%

Trading days: January, 1948—26; December, 1947—26; January, 1947—26.

RETAIL FURNITURE STORES

	Net Sales Jan., 1948 compared with Dec. '47	Jan.' 47	Inventories Jan., 1948 compared with Dec. '47	Jan. '47	Ratio of Collections Jan. '48	Jan. '47
St. Louis Area1	—45%	+10%	+ 1%	+20%	33%	35%
St. Louis	—44	+ 9	+ 1	+20	34	35
Alton	*	*	*	*	*	*
Louisville	—53	+20	+ 9	+31	18	27
Memphis	—56	—10	— 2	+27	18	24
Little Rock	—43	+ 9	— 4	— 6	25	35
Springfield	—30	—17	*	*	*	*
8th District Total2	—46	+ 6	+ 1	+16	27	33

* Not shown separately due to insufficient coverage, but included in Eighth District totals.

1 Includes St. Louis, Missouri; East St. Louis and Alton, Illinois.

2 In addition to above cities, includes stores in Blytheville, Fort Smith and Pine Bluff, Arkansas; Owensboro, Kentucky; Greenville, Greenwood, Mississippi; Springfield, Missouri; and Evansville, Indiana.

PERCENTAGE DISTRIBUTION OF FURNITURE SALES

	Jan., '48	Dec., '47	Jan., '47
Cash Sales	17%	20%	23%
Credit Sales	83	80	77
Total Sales	100	100	100

November output and 7 per cent larger than that of December, 1946. Production was the largest for any December of record.

Meat Packing—Meat packing operations in the St. Louis area in January were considerably below December operations and about 3 per cent less than in January of last year. The number of animals slaughtered under Federal inspection totaled 505,000, compared to 603,000 in December and 523,000 in January, 1947.

Mining and Oil—Production of bituminous coal in the district in January totaled 11.6 million tons according to preliminary reports. This was a 4 per cent increase over December and was about the same as production in January, 1947. The largest increase was registered in western Kentucky where output was up 9 per cent over December and 24 per cent over January a year ago.

Preliminary estimates of crude oil production in the district states in January show a daily average of 303,000 barrels, a 2 per cent decrease from December, 1947 and about 6 per cent below the rate in January, 1947. Daily production in Arkansas increased somewhat over the previous month, but this was offset by decreases in Illinois, Indiana and Kentucky.

Construction—The value of building permits awarded in the major district cities in January totaled $5.7 million as compared with $8.3 million in December and $4.6 million in January of last year. Increases over December occurred in Memphis and Little Rock, but these failed to offset sharp declines in St. Louis, Louisville, and Evansville. The value of permits in the latter cities also was down as compared with January, 1947.

TRADE

During January, 1948, department store sales (dollar amount) declined more than seasonally. Indexes of sales, adjusted for seasonal variation for January, 1948, December, 1947, and January, 1947, were 292, 337 and 278 per cent, respectively, of the 1935-39 period. Despite adverse weather conditions, district sales volume during the first half of the month ran higher than in the latter part, apparently being stimulated by post-holiday sales events. These promotions this year were primarily because of tradition rather than being designed to reduce inventories. Actually retailers find that replacement of inventory in many lines will be made at increased prices.

The supply situation has improved, however, and little difficulty is reported in obtaining replacements in all but a few of the major durable lines, although, as noted, at higher prices. Inventories at reporting department stores at the end of January, 1948, were

7 per cent more than on December 31, 1947, and were 6 per cent larger than at the end of January, 1947.

At reporting women's apparel stores January sales volume declined 39 per cent from the previous month, but was 1 per cent less than in January, 1947. In terms of value, inventories at women's apparel stores were 6 per cent larger at the end of the month than on December 31, 1947, but were 18 per cent greater than on January 31, 1947.

Dollar sales at men's apparel stores during January declined 61 per cent from December, but were slightly above the comparable month last year. The value of inventories held by reporting men's stores at the end of January was up from both the end of the previous month and the comparable date in 1947.

January sales volume at reporting furniture stores was 46 per cent below December, 1947, but was 6 per cent above the level of January, 1947. Anticipation of traditional February sales events and adverse weather conditions had a somewhat limiting effect on the volume of furniture store sales during the month. Inventories of reporting furniture stores at the end of January were slightly above those reported at the end of December, and 16 per cent above those reported for January, 1947.

BANKING AND FINANCE

Since the beginning of the year, Eighth District banks have lost demand deposits and have shown a decline in earning assets. Between December 31, 1947 and February 18, 1948, total demand deposits of the weekly reporting banks in the district dropped slightly more than $200 million. About half of this decline reflected withdrawal of interbank balances by correspondent banks, but the remainder represented a decrease in demand deposits of individuals, partnerships and corporations. Time deposits continued to increase but the net gain in the seven weeks was just $1 million, a much slower rate of gain than occurred in the comparable period last year.

Bank loans decreased in the seven-week period. Total loans of the weekly reporting banks declined about $16 million with business loans off $13 million and security loans off $10 million. Real estate and "other" loans continued to rise, showing gains of $3 million and $4 million, respectively. The decrease in commercial, industrial and agricultural loans at the district banks apparently is mainly seasonal in character. Except for 1941, such loans at weekly reporting banks here have declined from year-end through the late spring in every year since 1939.

WHOLESALING

Lines of Commodities	Net Sales		Stocks
Data furnished by Bureau of Census U. S. Dept. of Commerce*	Jan., 1948 compared with Dec., '47	Jan., '47	Jan. 31, 1948 compared with Jan. 31, 1947
Automotive Supplies	— 4%	— 4%	+ 3%
Drugs and Chemicals	+ 5	+14	....
Dry Goods	— 2	— 4	— 2
Groceries	+11	— 3	+ 6
Hardware	—17	+ 8	+43
Plumbing Supplies	— 3	—19	....
Tobacco and its Products	—12	— 2	+10
Miscellaneous	+13	+14	+21
**Total all lines	— 3%	+ 2%	+11%

* Preliminary.
** Includes certain items not listed above.

PRICES

WHOLESALE PRICES IN THE UNITED STATES

Bureau of Labor Statistics (1926=100)	Jan., '48	Dec., '47	Jan., '47	Jan., '48 comp. with Dec., '47	Jan., '47
All Commodities	165.6	163.1	141.5	+1.5%	+17.0%
Farm Products	199.2	196.7	165.0	+1.3	+20.7
Foods	179.9	178.4	156.2	+0.8	+15.2
Other	148.1	145.3	127.6	+1.9	+16.1

RETAIL FOOD PRICES

Bureau of Labor Statistics (1935-39=100)	Jan. 15, 1948	Dec. 15, 1947	Jan. 15, 1947	Jan. 15, '48 compared with Dec. 15, '47	Jan. 15, '47
U.S. (51 cities)	209.7	206.9	183.8	+ 1%	+14%
St. Louis	217.2	215.2	187.4	+ 1	+16
Little Rock	211.4	211.8	182.4	- 0 -	+16
Louisville	200.1	198.9	177.7	+ 1	+13
Memphis	230.7	229.7	200.2	- 0 -	+15

BANKING

PRINCIPAL ASSETS AND LIABILITIES
FEDERAL RESERVE BANK OF ST. LOUIS

(In thousands of dollars)	Feb. 18, 1948	Change from Jan. 21, 1948	Feb. 19, 1947
Industrial advances under Sec. 13b	$................	$	$ ....
Other advances and rediscounts	17,695	+ 3,756	+ 2,937
U. S. securities	1,133,263	— 42,538	+ 23,623
Total earnings assets	$1,150,958	—$38,782	+$26,560
Total reserves	$ 643,795	—$35,730	+$ 4,581
Total deposits	686,978	— 66,767	+ 15,597
F. R. notes in circulation	1,109,051	— 14,090	+ 14,678
Industrial commitments under Sec. 13b	$ 580	- 0 -	—$ 3,645

PRINCIPAL ASSETS AND LIABILITIES
WEEKLY REPORTING MEMBER BANKS

(In thousands of dollars) Assets	Feb. 18, 1948	Change from Jan. 21, 1948	Feb. 19, 1947
Total loans and investments	$2,102,375	—$ 92,670	+$ 5,666
(Commercial, industrial, and agricultural loans, open market paper)	595,087	— 14,871	+ 120,594
Loans to brokers and dealers in securities	6,989	+ 348	— 3,020
Other loans to purchase and carry securities	30,630	— 4,151	— 36,927
Real estate loans	146,426	+ 1,127	+ 29,855
Loans to banks	993	— 1,955	— 193
Other loans	184,951	— 1,244	+ 39,304
Total loans	965,076	— 20,746	+ 149,613
Treasury bills	39,012	— 20,921	+ 32,869
Certificates of indebtedness	100,179	+ 2,336	— 29,934
Treasury notes	91,483	— 6,517	— 80,544
U. S. bonds including guaranteed obligations	760,665	— 46,356	— 65,936
Other securities	145,960	— 466	— 402
Total investments	1,137,299	— 71,924	— 143,947
Cash assets	735,342	— 58,356	+ 25,700
Other assets	25,064	+ 1,360	— 413
Total assets	$2,862,781	—$149,666	+$ 30,953
Liabilities			
Demand deposits—total	$2,192,024	—$155,454	+$ 4,678
Individuals, partnerships, and corporations	1,412,435	— 74,561	+ 90,881
Interbank demand deposits	625,004	— 93,125	— 41,448
U. S. Government deposits	24,078	+ 9,592	— 52,268
Other demand deposits	130,507	+ 2,640	+ 7,513
Demand deposits—adjusted*	1,329,940	— 41,969	+ 81,714
Time Deposits	474,030	+ 1,260	+ 15,928
Borrowings	11,350	+ 2,600	+ 3,050
Other liabilities	15,670	+ 485	— 985
Total capital accounts	169,707	+ 1,443	+ 8,282
Total liabilities and capital accounts	$2,862,781	—$149,666	+$ 30,953

* Other than interbank and Government deposits, less cash items on hand or in process of collection.

Weekly reporting bank investments also declined in the period from December 31 to February 18. The decrease reflected primarily continued sales of Treasury bonds as investors showed an increased desire for liquidity. Note holdings also showed some decrease in the seven weeks. About two-thirds of the funds realized from bond and note sales apparently were reinvested in Treasury bills and certificates which, combined, were $45 million higher on February 18 than on December 31. The short-term issues have become much more attractive as bank investments with the rise in interest rates.

AGRICULTURE

The most dramatic development of the past month concerning agriculture was the sharp break in farm commodity prices. While prices of some commodities had shown some weakness in the latter part of January, the abrupt decline following February 3 was not generally anticipated. For several days, future prices of farm products (wheat, corn, soybeans, oats, and cotton) dropped the permissible limit each day. Apparently in sympathy, livestock and butter prices also moved appreciably lower.

The decline in prices was one of the sharpest in history. At the low points, wheat was off 19 per cent from February 3, corn off 21 per cent, and soybeans down 16 per cent. After a few days of limit declines, prices, while gyrating rather wildly, tended to fluctuate around somewhat higher levels than the low point of the market.

As prices of farm commodities dropped, the parity ratio declined from 122 on January 15 to 112 on February 15. Farmers, of course, buy various farm products themselves, and a lowering of farm product prices—especially those of feed, flour, certain meats, etc.—leads to a decline in the index of prices paid by farmers. As prices of farm commodities drop, however, the index of prices received declines more than that of prices paid, since prices paid by farmers include manufactured and processed articles, the prices of which are relatively stable Thus, the parity ratio (index of prices received divided by index of prices paid, including interest and taxes) tends to narrow.

Before the commodity price break, prices paid had been moving up faster than prices received. For example, the index of prices received was at a record on January 15 (307 per cent of the 1910-14 average), up 2 per cent from December 15. In the same period the index of prices paid reached 251, up 2.5 per cent, and the parity ratio dropped from 123 to 122. In addition to prices for food and feed rising from December to January, real estate taxes also increased due to higher valuations and higher rates.

Even with the fall in farm commodity prices, they remain well above the level of a year ago. Farm income in January was $2.6 billion, 15 per cent higher than in January, 1947, but, due to seasonally smaller marketings, it was lower than in December. Income from livestock was $1.5 billion, 10 per cent more than a year earlier. Crop receipts were $1.1 billion, 10 per cent less than December, but about a fifth higher than a year earlier.

Demand for burley tobacco continued strong through January. Ninety per cent of the crop had been sold by January 23 at an average price of 40.2 cents per pound.

DEBITS TO DEPOSIT ACCOUNTS

(In thousands in dollars)	Jan., 1948	Dec., 1947	Jan., 1947	Jan., '48 comp. with Dec., '47	Jan., '47
El Dorado, Ark.	$ 21,162	$ 22,191	$ 16,898	— 5%	+25%
Fort Smith, Ark.	40,362	40,861	34,506	— 1	+17
Helena, Ark.	8,749	9,035	7,729	— 3	+13
Little Rock, Ark.	114,363	120,522	106,320	— 5	+ 8
Pine Bluff, Ark.	29,223	28,804	26,769	+ 1	+ 9
Texarkana, Ark.-Tex.	10,207	11,107	9,705	— 8	+ 5
Alton, Ill.	25,363	25,431	19,414	- 0 -	+31
E.St.L.-Nat.S.Y.,Ill.	128,607	134,043	108,623	— 4	+18
Quincy, Ill.	31,736	32,169	24,936	— 1	+27
Evansville, Ind.	120,997	114,453	90,123	+ 6	+34
Louisville, Ky.	517,043	581,217	471,089	—11	+10
Owensboro, Ky.	31,568	37,206	30,191	—15	+ 5
Paducah, Ky.	16,016	17,151	13,633	— 7	+17
Greenville, Miss.	20,925	22,875	16,354	— 9	+28
Cape Girardeau, Mo.	11,721	10,475	9,742	+12	+20
Hannibal, Mo.	8,265	8,496	7,568	— 3	+ 9
Jefferson City, Mo.	52,612	33,210	51,187	+58	+ 3
St. Louis, Mo.	1,493,243	1,709,644	1,322,736	—13	+13
Sedalia, Mo.	10,317	10,796	9,558	— 4	+ 8
Springfield, Mo.	56,964	58,682	49,359	— 3	+15
Jackson, Tenn.	17,589	20,067	15,834	—12	+11
Memphis, Tenn.	529,146	645,954	468,944	—18	+13
Totals	$3,296,178	$3,694,389	$2,911,218	—11	+13

AGRICULTURE

CASH FARM INCOME

(In thousands of dollars)	Dec., 1947	Dec., '47 comp. with Nov., 1947	Dec., 1946	12 month total Jan. to Dec., 1947	1947 comp. with 1946	1945
Arkansas	$ 55,150	— 5%	+ 3%	$ 490,001	+12%	+57%
Illinois	178,051	— 17	+16	1,869,729	+29	+57
Indiana	99,299	— 12	+23	1,079,751	+27	+53
Kentucky	126,396	+312	+56	579,258	+32	+36
Mississippi	59,247	+ 4	+81	473,439	+56	+43
Missouri	111,628	— 4	+14	1,080,676	+25	+52
Tennessee	66,120	+ 77	+28	485,938	+22	+43
Totals	$695,891	+ 11%	+26%	$6,058,792	+28%	+51%

RECEIPTS AND SHIPMENTS AT NATIONAL STOCK YARDS

	Receipts Jan., 1948	Jan., '48 comp. with Dec., '47	Jan., '47	Shipments Jan., 1948	Jan., '48 comp. with Dec., '47	Jan., '47
Cattle and calves	103,248	— 20%	— 25%	28,211	— 14%	— 41%
Hogs	264,012	— 7	+ 2	70,834	+ 1	— 6
Sheep	41,393	— 27	— 17	5,851	— 24	— 43
Horses	1,545	+104	— 72	1,545	+104	— 72
Totals	410,198	— 13%	— 9%	106,441	— 4%	— 23%