Monthly Review

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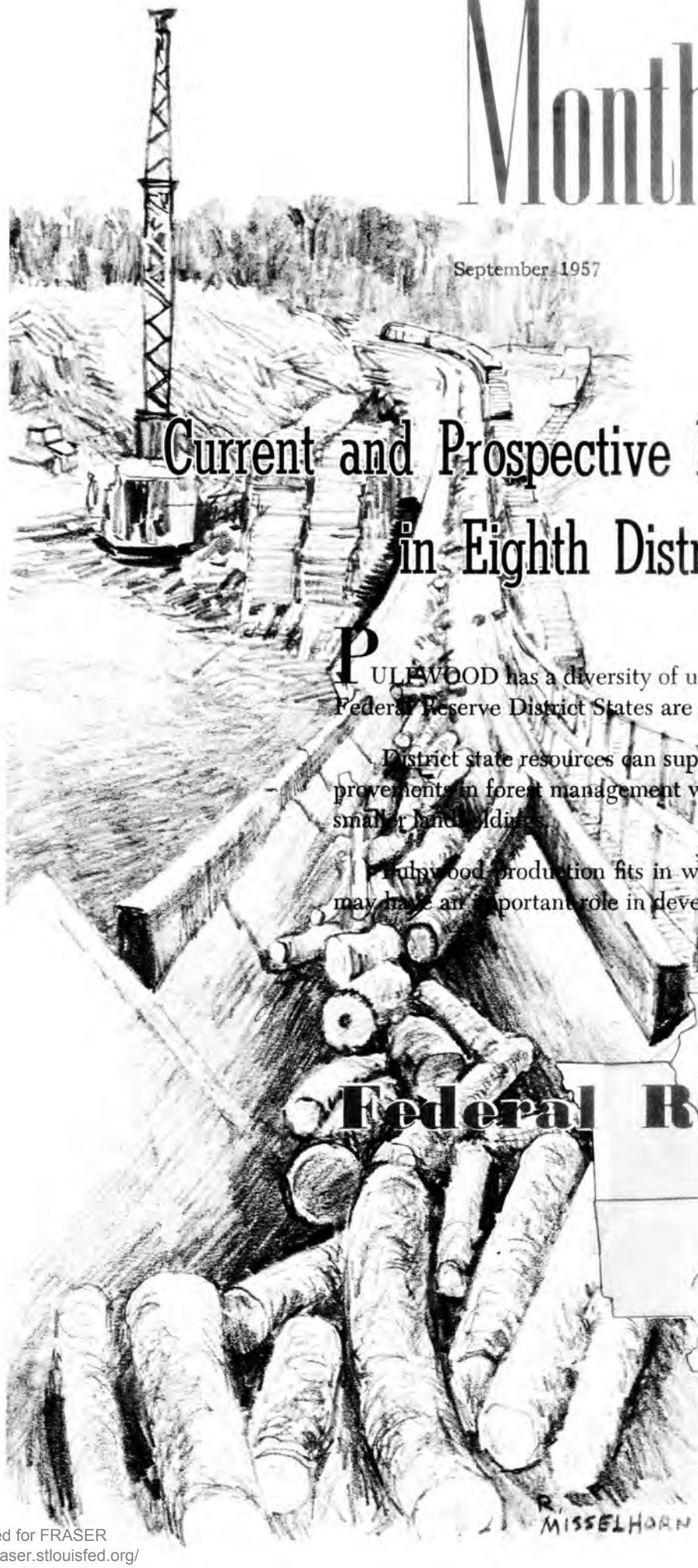

Current and Prospective Pulpwood Production in Eighth District States

PULPWOOD has a diversity of uses and its markets are expanding. Eighth Federal Reserve District States are sharing in this expansion.

District state resources can support a still greater pulpwood output. Improvements in forest management will be required, however, especially on the smaller landholdings.

Pulpwood production fits in well with other forest enterprises. Bankers may have an important role in developing forest resources.

Federal Reserve Bank of St. Louis

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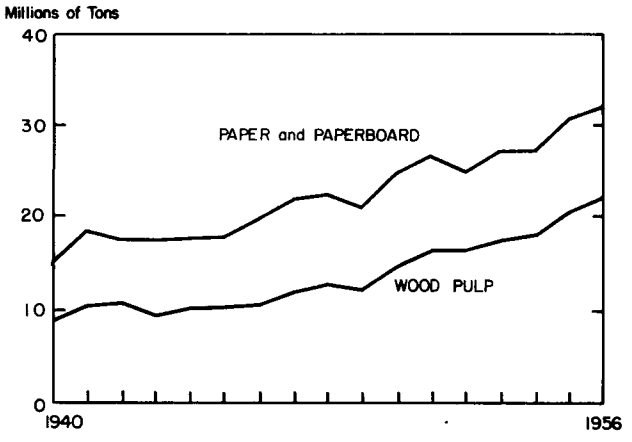
Current and Prospective Pulpwood Production in Eighth District States

Pulpwood has a diversity of uses and its markets are expanding.

A VISITOR from abroad is quickly impressed with the "paper-mindedness" of Americans when he first buys a Sunday paper or sees the racks of artfully packaged wares in a supermarket. The casual way in which an American family uses hundreds of pounds of paper products each year is in striking contrast to practices in some countries where customers are expected to bring their own wrapping paper to the store. "Paper-mindedness" has stimulated a phenomenal increase in the consumption of pulpwood in this country since the turn of the century. From less than 2 million cords in 1899, the nation's use of pulpwood grew to 7 million cords in 1930, and to nearly 36 million cords in 1956.

Paper, which requires over half of all wood pulp consumed, has more than doubled in use during the past quarter-century.

PRODUCTION OF PAPER AND PAPERBOARD AND WOOD PULP IN THE UNITED STATES



Source: United States Department of Commerce, Bureau of the Census, *Facts for Industry*, Series M 14A.

More versatile and better quality paper and multicolor printing have contributed to this expansion. The most rapid increase in paper use has occurred in the shipping and packaging industries. Wax-coated paper containers for milk and frozen foods are examples of recent trends in the use of pulp products for merchandising. Bulk materials, such as sugar, flour, cement and chemical fertilizer, are now being shipped and stored in paper bags, whereas formerly burlap or cotton bags were used. The introduction of waterproof paper, practical convenience and better advertising possibilities are given as some of the reasons for the shift to paper bags. There has been a large increase in the use of tar impregnated paper for wrapping pipe and other items to retard corrosion. The use of sanitary and tissue paper has also increased rapidly during the past quarter-century.

The consumption of paperboard has been increasing even more rapidly than that of paper, trebling during the past twenty-five years. Wooden boxes have been replaced by shipping cartons made of paperboard. Such cartons are lighter than wooden boxes and can be folded for shipment and storage. Moreover, they are suitable for automatic packaging machines which are in general use at most manufacturing plants.

Wood pulp products are of increasing importance in the construction of perforated pulpboard, which is used as accoustical tile, and the use of pulpboard for insulating purposes has been growing very rapidly. Saturated felt, another pulp product used in floors and roofs, also has an expanding market.

Estimated United States demand for paper and board will total 43.8 million tons by 1965, according to a comprehensive report, *Pulp, Paper and Board Supply-Demand,* recently published by the Committee on Interstate and Foreign Commerce of the 85th Congress.[1] By these estimates, paper grade wood pulp consumption for 1965 is expected to total 32.3 million tons, and dissolving pulp, used in rayon and plastics, an additional 1.7 million tons. Total wood pulp consumption would thus be 34 million tons, 42 per cent greater than actual consumption in 1956.

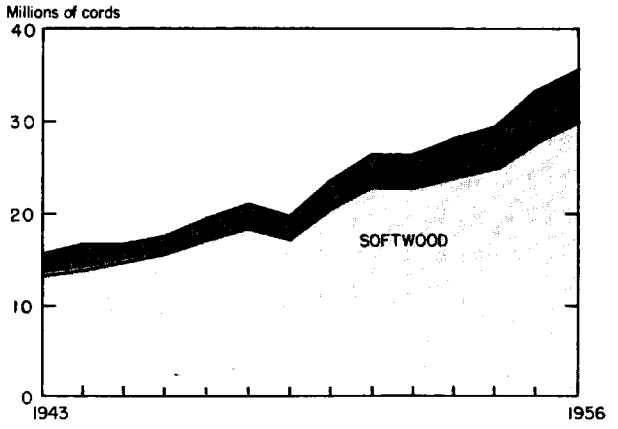
Nearly 53 million cords of pulpwood would be required, 47 per cent more than in 1956. Although the consumption of waste paper and other fibrous materials is expected to increase, their rate of increase will probably be somewhat less than that of pulpwood.

While the consumption of wood pulp for purposes other than paper, paperboard and building materials is small relative to total consumption, that going into rayon and acetate has been growing rapidly.

Much of the expansion in markets for pulpwood has been made possible by technological advances in processing. A few years ago spruce and fir were the only trees that could be economically used. The development of new processes has made it feasible to use southern pines, western hemlock, fir, jackpine and many hardwoods. These new processes opened up large new producing areas, including the Eighth District states. Growth of pulpwood production in district states and the southeastern United States began in the 1920 decade and has continued with increasing tempo in the 1950's.

[1] *Pulp, Paper, and Board Supply-Demand,* Report of the Committee on Interstate and Foreign Commerce, 85th Congress, 1st Session, June 17, 1957. The estimates are based upon stated assumptions regarding growth of population, gross national product and other relevant economic measures.

CONSUMPTION OF PULPWOOD IN THE UNITED STATES



Source: United States Department of Commerce, Bureau of the Census, *Facts for Industry,* Series M 14A.

Eighth Federal Reserve District States are sharing in this expansion.

The spectacular increase in pulpwood production during recent years in Eighth Federal Reserve District States tends to belie the old adage, "Money doesn't grow on trees." Located astride the dividing line between the Central Hardwood Forest region and the Southern Forest, district states contain about one-ninth of the nation's land area and one-sixth of its commercial forest land. When use of southern pine for pulp began in the 1920's decade the pine belt portion of the area was opened for production. By 1940, total production of pulpwood in these states exceeded a million cords per year (see Table 2). Output doubled from 1940 to 1952 and continued to grow through 1956 at the rate of about 250,000 cords per year. The rate of increase during the sixteen-year period, 1940-1956, was slightly greater than that of the nation.

TABLE 1

TOTAL LAND AREA AND FOREST LAND IN EIGHTH DISTRICT STATES, 1953

(IN THOUSANDS OF ACRES)

Eighth District States	Total Land Area[1]	Total Forest Land Area[2]	Commercial Forest Land Area[2]	Non-Commercial[2] Forest Land
Arkansas	52,675	19,346	19,292	54
Illinois	55,935	3,993	3,938	55
Indiana	36,205	4,103	4,045	58
Kentucky	39,864	11,497	11,446	51
Mississippi	47,248	16,473	16,440	33
Missouri	69,226	15,177	15,064	113
Tennessee	41,797	12,558	12,301	257
Total	342,950	83,147	82,526	621
United States	2,974,726	647,686	484,340	163,346

[1] *Statistical Abstract of the United States,* 1956.
[2] *Timber Resource Review,* September, 1955.

More than half of the pulpwood produced in the district states comes from Mississippi, about 30 per cent from Arkansas and 10 per cent from Tennessee. These states contain nearly 60 per cent of the district states' commercial forest land and a considerably greater share of the pine forest. The recent increase in use of hardwoods for pulp has made the forests of the entire district states area potentially valuable as a pulpwood source. Production of pulp from hardwoods is increasing rapidly in Illinois,

TABLE 2

PULPWOOD PRODUCTION, EIGHTH DISTRICT STATES
(THOUSAND CORDS OF ALL PULPWOOD, INCLUDING RESIDUES)

	1956[1]			1952[3]			1940
	Total	Hardwoods	Softwoods	Total	Hardwoods	Softwoods	Total
Arkansas	1,075.2	139.7	935.5	620.2	86.2	533.9	486
Illinois	80.1	80.0	0.1	45.0	45.0	....	[4]
Indiana	22.0	22.0	0.0	12.0	12.0	....	[4]
Kentucky	53.3	28.3	25.0	30.0	27.9	2.1	[4]
Mississippi	2,135.7	938.0	1,197.8	1,867.3	482.3	1,385.0	630
Missouri	2.4	1.4	1.0	12.0	8.5	3.5	[4]
Tennessee	398.8	153.9	244.8	268.4	153.9	114.5	131
Total	3,767.5	1,363.3	2,404.1	2,854.9	815.8	2,039.0	1,247
United States	35,196[2]	6,104	29,092	25,065	3,657	21,408	12,307[5]

Note: Detail will not necessarily add to totals because of rounding.

[1] Illinois, Indiana, Kentucky Missouri—*Station Note No. 104,* Central States Forest Experiment Station, Columbus, Ohio, July, 1957.
Arkansas, Mississippi and Tennessee—*1956 Pulpwood Production in the South,* Southern Forest Experiment Station, New Orleans, La., August, 1957.

[2] *Pulp, Paper, and Board Supply Demand,* Report of the Committee on Interstate and Foreign Commerce, 85th Congress, 1957.

[3] *Timber Resource Review,* U. S. Department of Agriculture, Forest Service, 1955.

[4] No records available. Estimated to be an insignificant amount.

[5] *Report of the Forest Resource Appraisal,* The American Forestry Association, 1947.

Indiana and Kentucky. Output almost doubled in these states during the four years 1952 to 1956. Hardwoods are used almost exclusively in Indiana and Illinois, whereas Kentucky produces pulpwood from both pine and hardwood.

Although not as large an income producer as cotton, hogs or soybeans in the district, pulpwood has become an important source of income especially in the southern district states. The value of pulpwood delivered to concentration points in Mississippi and Arkansas in 1955 was estimated at approximately $50 million. This was approximately 5 per cent as much as the combined sales of all crops and livestock products in these two largely agricultural states. In particular counties pulpwood is of much greater relative importance than in the district as a whole. In Union County, Arkansas, for example, the value of pulpwood produced in 1954 was about equal to the value of all crops and livestock products sold.

Of further importance to the district states' economy is the influence of pulpwood production upon the location of pulp and paper plants. There were 13 mills operating in district states in 1956; two more are scheduled for completion in 1957; and at least three more are planned.

District state resources can support a still greater pulpwood output.

The soils, climate and topography of district states are favorable for pulpwood production. Rainfall is generally adequate the year-around for rapid tree growth and long warm summers provide an ample growing season. New seedlings often spring up on abandoned crop land and in openings where mature trees have been harvested.

Although the average volume of standing timber per acre is relatively low in this area, net annual growth is above the national average (see Table 3).

TABLE 3

GROWTH, CUT AND VOLUME OF GROWING STOCK PER ACRE OF COMMERCIAL FOREST LAND, 1952.

Eighth District States	Net Annual Growth (Cubic Feet Per Acre)	Net Annual Cut (Cubic Feet Per Acre)	Net Volume Growing Stock Jan. 1, 1953 (Cubic Feet Per Acre)
Arkansas	29.7	19.7	609.7
Illinois	34.3	9.6	774.5
Indiana	34.4	12.9	751.8
Kentucky	31.9	14.2	684.4
Mississippi	43.6	34.7	585.6
Missouri	17.9	5.6	365.3
Tennessee	19.8	20.5	469.1
District State Average	29.6	18.6	564.5
United States Average	29.3	22.2	1,029.1

Source: Basic data from *Timber Resource Review,* September, 1955.

Principal Types of Timber in Eighth District States

THE MAP OPPOSITE shows areas characterized by major forest types in the seven states which include the Eighth Federal Reserve District.

Pine areas, which supply most of the district states pulpwood, are concentrated in southern district states. Loblolly-shortleaf pine forest predominates in Mississippi, excepting the Delta and river-bottom areas and the low coastal lands; in Arkansas, particularly south of the Arkansas River; and in the eastern, Appalachian, sections of Kentucky and Tennessee.

An area of longleaf-slash pine characterizes the coastal region of Mississippi. White-red-jack pine forest occurs only in a very small area in eastern Tennessee.

Hardwood forests, which are becoming more important as a source of pulpwood, are more extensive in these states than softwood types. The oak-hickory forest is typical of most of Missouri, southern Illinois, considerable parts of Indiana both north and south, the greater portion of Kentucky and the western two-thirds of Tennessee and most of Northwestern Arkansas.

The second most extensive area of hardwoods is the swamp and bottom-land forest. This type is found along the principal water courses with its greatest extent in the Mississippi River Basin, which includes the Bootheel of Missouri and the Arkansas and Mississippi Deltas. A maple-birch-beech forest type covers a considerable portion of southern Indiana.

This map is derived from one entitled *Areas Characterized by Major Forest Types in the United States* prepared by the United States Department of Agriculture, Forest Service, in 1949 and based on a national survey of forest resources. The Forest Service defines the six types of timber areas shown on the map as follows:

LONGLEAF-SLASH PINE: Forests in which 25 percent or more of the stand is longleaf or slash pine, singly or in combination.

LOBLOLLY-SHORTLEAF PINE: Forests in which 25 percent or more of the stand is loblolly pine, shortleaf pine, or other yellow pines, excepting longleaf or slash, singly or in combination.

WHITE-RED-JACK PINE: Forests in which 50 percent or more of the stand is eastern white pine, red pine or Jack pine, singly or in combination.

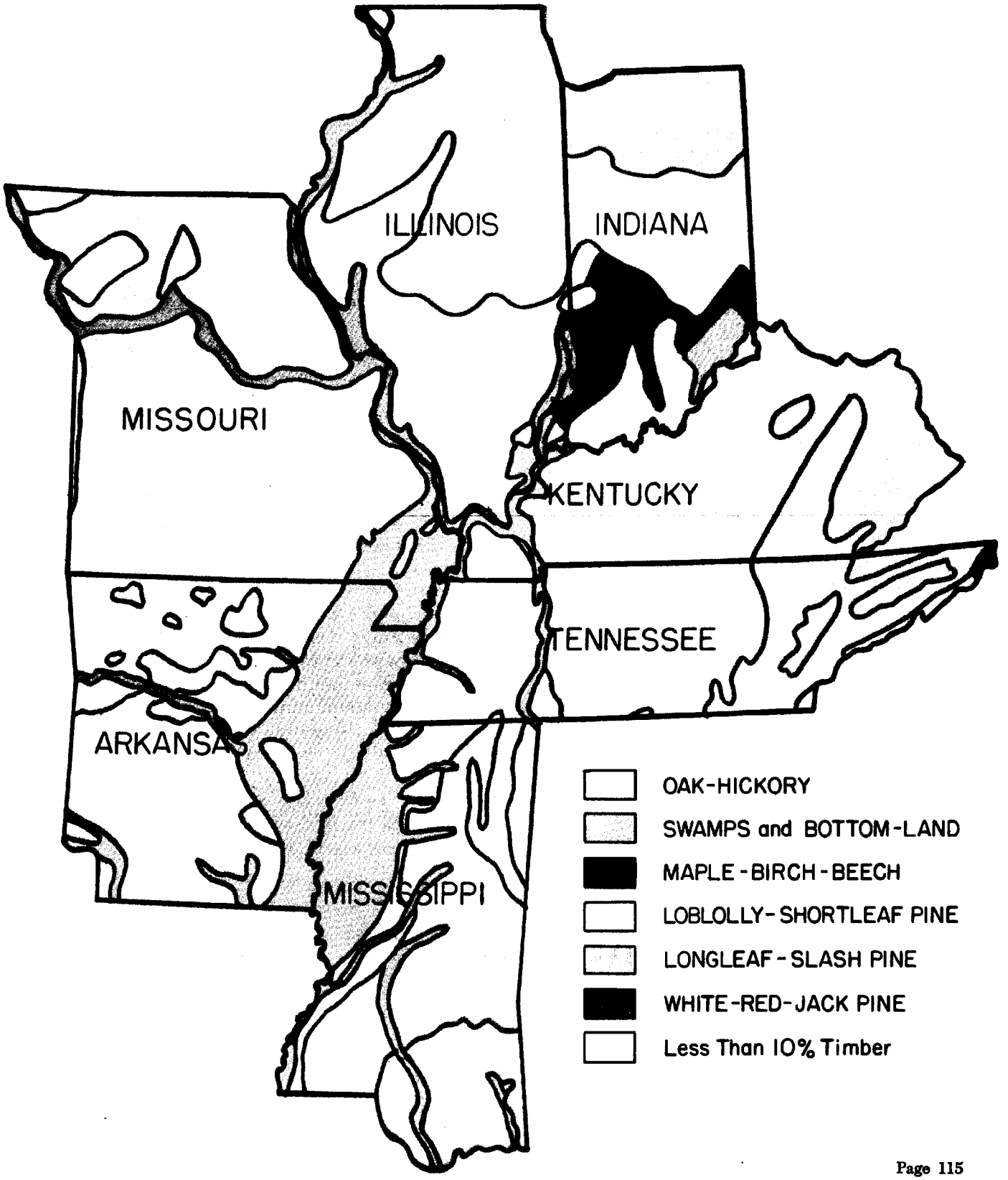
MAPLE-BIRCH-BEECH: (northern hardwoods): Forests in which 50 percent or more of the stand is sugar maple, yellow birch, beech or basswood, singly or in combination.

OAK-HICKORY: Forests in which 50 percent or more of the stand is upland oaks. hickories, yellow poplar, or gums, singly or in combination, except where longleaf and/or slash pine comprises 25 percent, or where loblolly, shortleaf, Virginia and/or pitch pine comprises 25 percent, singly or in combination, in which cases the stands would be classified respectively as longleaf-slash pine or loblolly-shortleaf pine.

SWAMP AND BOTTOM-LAND FORESTS: Forests on characteristically moist to wet sites primarily identified by water tupelo, black gum, sweet gum, southern cypress, ash, oak, pine, elm, cottonwood, and red maple, making up 50 percent or more of the stand, singly or in combination, except where longleaf and/or slash pine comprises 25 percent, or where loblolly and/or shortleaf pine comprises 25 percent, in which cases the stands would be classified respectively as longleaf-slash pine or loblolly-shortleaf pine.

The area not typed may have some timber, usually covering less than 10 per cent of the land.

Map of Principal Types of Timber in Eighth District States



Very favorable growing conditions here have apparently offset the effects of understocking. Furthermore, growth rates in the district states exceed the rate of cutting by a considerable margin. The annual net cut was less than two-thirds of net growth in 1953, while for the same year the nation as a whole cut approximately three-fourths of the growth. The favorable ratio of growth rates to cutting in the seven states should permit improvement in the timber stands and provide the base for expanding output in the future.

Unfortunately, the old growth of sawtimber is about gone in the area. In 1953 the district states had only about one-fourteenth of the nation's standing sawtimber and the greater part of that was in second growth stands. The current era of improvement in forests follows a long period in which timber resources were drawn down. Lumber production in the area was at its zenith during the first two decades of this century, when "Cut and get out" was the policy of most operators. A large per cent of the timber that remained after the sawtimber harvests was unmarketable or of low value. Furthermore, inferior trees were occupying space where high quality trees could be growing and forest fires often curtailed natural restocking processes. Another factor in the drain on timber resources in the past was the lack of knowledge in erosion control methods which led to abandonment of eroded farmland and the clearing of new lands that, in many cases, were not topographically suited to crop production.

Improvements in forest management will be required, however, . . .

One of the first major attempts to assure a permanent timber supply in the area was establishment of the Ouachita National Forest in Arkansas in 1907. Soon thereafter, a number of lumber companies began to acquire second growth pine lands in the southern district states after the old growth had been exhausted. Owners of the larger holdings were showing interest in scientific forest management by the early thirties. More recently, substantial advances have been made in the management of timber on many smaller holdings.

In 1953, according to the *Timber Resource Review,* pulp manufacturers were apparently doing the best job of forest management of all the private ownership groups in the nation.[2] Almost two-fifths of the total land area held by pulp manufacturers was in ownerships on which some timber stand improvement work was being done. By contrast, only about 3 per cent of the land in farms was in units undergoing improvement. The level of timber management practiced by pulp manufacturers is especially high in the South. Holdings of lumber manufacturers, other wood manufacturers and other private investors fall between these two extremes.

When land holdings were classified in the *Timber Resource Review* according to size, the quality of timber management increased with each larger size-classification. For the nation, only 2 per cent of the area in holdings of less than 100 acres reported any improvement work, as compared to 45 per cent of the area in units of 50,000 acres or more.

. . . especially on the smaller landholdings.

Small farm forest properties have long been recognized as the crux of the forest management problem in the district states and in the nation. Low income and inability to save or wait for capital to be replenished have made it difficult for small farmers to develop their woodlands. Tenants, who frequently moved from place to place, were generally given wide latitude in their use of timber resources with unhappy results so far as good forestry practices are concerned.

Fortunately, the problem of small farms is being alleviated both in the district and in the nation. Total number of farms has declined consistently since World War II. With this decline has gone a persistent growth in size of farms. The greatest increase in average size of farms in the district states occurred in Arkansas and Mississippi where farms were small and a great concentration of sawtimber exists. These resource changes in agriculture have resulted in more efficient performance on farms. In turn higher incomes have relieved some of the pressure to clear land for crops which is better suited for timber. Similarly, as farm incomes improve, pressure to cut timber on farm land without leaving a good stock of growing trees is reduced.

Good forest management pays. According to the Missouri Conservation Commission, timberlands in that state could produce five times as much timber if they were properly managed.[3] Furthermore, in the case of the small landholders, most of the management work could be done by the owners without the necessity for cash outlays. The United States Forest Service has estimated that a moderate level of management in Mississippi would eventually raise

[2] *Timber Resource Review,* United States Department of Agriculture, Forest Service, 1955, Chapter IX.

[3] *Forest Fires in Missouri,* Missouri Conservation Commission, 1951.

current annual growth in board feet by two-thirds.[4] Such a level of management entails state-wide fire protection, cutting practices which would maintain full production capacity on land held by forest-product firms and public agencies, and cutting practices on the rest of the forest land designed to improve productivity.

A case study in 1954 points up the increase in returns from an individual farm woodlot that can be attained by improving forest management practices.[5] Using constant prices for calculating returns, net gains from the ninety-two-acre woodlot on a farm in Tippah County, Mississippi, over three decades could be increased from $3,639 to $15,322 with the installation of a planned forestry program.

Pulpwood production fits in well with other forest enterprises.

Despite its excellent prospects in the district states pulpwood is not likely to become the only product marketed from most district forest lands. Good quality saw logs still sell at a substantial premium for lumber or veneer compared to the price paid for pulpwood. Pulpwood provides a market primarily for smaller trees which must be thinned out in good forestry practice. The pulp market also provides an outlet for slow-growing and cull trees that should be eliminated from timber stands. Portions of trees that cannot be used for lumber or higher-priced products may also be used for pulp.

In recent years, wastes from wood-working plants, such as slabs and edgings from sawmills, have been used for making pulp. Sawmills equipped with de-barkers and chippers can sell as a valuable by-product waste material that they used to burn. Wood residues chipped for pulp in 12 southern states increased from 126,000 cords in 1954 to 659,000 in 1956, or more than 3 per cent of total southern pulpwood production. The use of wood residues for pulp has been developed further in Arkansas than in any other southern state, supplying 13 per cent of the state's pulpwood production in 1956.

[4] *Mississippi's Forest Resources and Industries*, United States Department of Agriculture, Forest Service, 1951.

[5] "The Covington Farm, A Case Study in Planning and Financing Farm Woodlot Production", *Monthly Review*, Federal Reserve Bank of St. Louis, December 1954.

Bankers may play an important role in developing forest resources.

The future prospects of the pulpwood industry are of special concern to bankers located near forested lands. Whether pulpwood production in the district states gains 47 per cent with the estimated national increase by 1965, or shows no gain, will make a substantial difference in the level of operations of many banks in the forested areas.

Fortunately, the banker is not completely passive in determining which of these alternatives is to be experienced. Many forest owners need to be convinced of the importance of good woodland management. Small owners have been especially slow to adopt practices designed to keep woodlands productive. If bankers can encourage such owners to do a better job substantial benefits may result.

Commercial bank lending for planting trees on unstocked lands is probably out of the question. It usually takes twelve to twenty years for newly planted trees to reach the thinning stage for pulpwood in the district states. This is obviously too long to be an attractive credit business for banks. However, bank credit has many other uses in forest products businesses. For example, loans to finance the purchase of marketable timber or to manufacture forest products are quite common.

In 1953 the Federal Reserve Act was amended to permit national banks to make real estate loans secured by first liens upon properly managed forest tracts. Before the amendment timberland was not considered to be improved real property which could be used as security. The change may facilitate forest improvement in several ways and reduce the premature and excessive cutting of timber which has been such a problem with farm woodlands.

Bankers are just one of many groups helping to improve the capacity of district forests to supply national markets for wood products. A greater output of pulpwood as a result of development efforts now being made will mean not only increased income to holders of timber tracts but will enhance the prospects for establishing additional pulp and paper mills in the district. Careful management of forest resources should thus yield widespread benefits in employment and income.

CLIFTON B. LUTTRELL
A. J. MEIGS

Survey OF CURRENT CONDITIONS

Released for Publication September 1

WHILE THE AMERICAN ECONOMY continued to give strong evidence of over-all prosperity during the past few months, a disquiet persists which has not been dispelled by the most recently available statistics. After allowing for the significant upward drift in prices these figures indicate that the economy is continuing its sidewise movement with most activities changed but slightly when compared with the recent past. To a public which has been conditioned by the substantial rate of growth during 1955 and 1956, this loss of forward momentum has been the subject of some greater impatience and concern than the current high level of business vitality would seem to warrant.

No doubt some of the anxiety regarding the nation's economic future involves the existence of perceptible soft spots. However, a conjuncture of offsetting developments has served to maintain prosperity. These include the rise in consumer outlays for nondurables and services, the increased levels of government expenditures, and inventory accumulation.

During July the Federal Reserve Board index of industrial production held steady at the June rate of 144 per cent. Total employment in nonagricultural establishments was 52.8 million (seasonally adjusted) in July, virtually unchanged from the revised June figure. However, increased wage and salary disbursements in the trade and service industries, as well as in government, were the basis for a slight 0.2 per cent rise in personal income in July. The level of unemployment, approximating 4 per cent of the labor force, was little changed from a year ago. Continued high levels of employment and income also seemed to maintain consumers' spending as reflected in a 1 per cent rise in retail sales. While it is clear that the growth of general business activity has slowed to a considerable extent, the continued increases in consumer prices and interest rates indicate that inflationary pressures have not entirely abated. The index of consumer prices moved up ½ of 1 per cent during July and the entire pattern of interest rates advanced during August. However, even in this area the general picture was alloyed by sporadic price declines in individual commodities and some bearishness in common stock prices.

This general picture of over-all stability is also evident in the Eighth District. Business at large changed little during August as compared with July. Individual activities are manifesting some differences in behavior and, although the order of magnitude of month-to-month changes is modest in most cases, comparisons with last year are sometimes quite revealing.

Steel production in the St. Louis area continued the decline which began in April of this year. This contraction in output has been interrupted only by the brief upturn in July which was associated with a return to normal operations after the flood conditions in June. Currently, steel plants in the St. Louis area are operating at about 77 per cent of capacity and production is down a substantial 18 per cent below last year.

Livestock slaughtering in the St. Louis area was also lower in August than in July with the bulk of the decrease coming in hog and sheep processing.

Cross currents were apparent in the business picture, however. Southern pine output was almost 12 per cent higher during August than it was in July, and was up about 6 per cent when compared with last year's figures. Freight car interchanges in the St. Louis area in early August were 18 per cent above July. Commercial failures in July were down somewhat from June and considerably below the level of a year ago. In general, business failures have been at a somewhat lower rate in 1957 than in 1956.

The major district labor markets, like their national counterparts, reflected both the overall stability of business in the aggregate and minor shifts in individual activities. Total nonagricultural employment evidenced a small seasonal drop, while manufacturing employment was off slightly more than usual in July. Typically there were some differences among reporting centers in the district. Unemployment de-

clined from June to July throughout the district, but was over year ago levels in Louisville, Little Rock and Memphis.

Loans at Eighth District weekly reporting banks expanded $50 million (about 3 per cent) during the four weeks ending August 21, somewhat more than is usual for the period. The strength was largely in business borrowing. Perhaps a third of the increase, however, was unrelated to the business situation, arising from the reclassification of certain security holdings into the category of loans to brokers and dealers. Loans to commodity dealers rose sharply in conjunction with the August 16th deadline for Commodity Credit Corporation cotton payments, which created large flows of money through district banks, especially at Memphis. Food and textile manufacturers added to loans, as did public utilities and to a lesser extent construction contractors. Partially offsetting these gains were net repayments of loans by metal manufacturers, trade concerns and sales finance companies. "Other" (largely consumer) loans rose moderately in the four-week period.

Some of the changes in security holdings of reporting member banks in the period were associated with Treasury financing. While certificate holdings increased following the pattern of the Treasury's August 1st refunding, the volume of Treasury notes declined. Later in the month the Treasury's seasonally depleted demand deposit balances were replenished by sales of special 237-day bills, some of which were added to bill holdings of the banks.

Developments in agriculture were seasonal in nature, with crops continuing to grow well, except for some areas which received too much rainfall. Cotton picking began in the southern part of the district in the latter part of the month. Because of delayed spring planting, corn and soybeans are expected to mature somewhat later than normal. United States Department of Agriculture production estimates reveal that output of cotton, corn, and soybeans will be substantially below 1956 volumes both for the nation and for the Eighth District farms. The regional drop is considerably more severe. The table below contains the estimates for the major district crops.

PRODUCTION OF SELECTED EIGHTH DISTRICT CROPS
1956 AND AUGUST 1, 1957 ESTIMATES

	Cotton			Corn			Soybeans			All Hay		
	1956	Aug. 1, 1957 Estimate	Per cent Change	1956	Aug. 1, 1957 Estimate	Per cent Change	1956	Aug. 1, 1957 Estimate	Per cent Change	1956	Aug. 1, 1957 Estimate	Per cent Change
	(Thousands 50-lb. Bales)			(Thousand Bushels)			(Thousand Bushels)			(Thousand Tons)		
Arkansas	1,426	1,120	—21%	18,090	12,788	—29%	27,162	22,402	—18%	949	1,017	+ 7%
Illinois	—	—	—	598,672	430,352	—28	134,948	107,436	—20	4,998	4,717	— 6
Indiana	—	—	—	296,546	226,356	—24	52,128	49,245	— 6	2,723	2,662	— 2
Kentucky	—	—	—	84,456	59,318	—30	2,992	2,466	—18	2,431	2,320	— 5
Mississippi	1,609	1,340	—17	39,150	39,432	+ 1	11,712	10,215	—13	908	952	+ 5
Missouri	448	245	—45	189,408	127,021	—33	39,120	31,680	—19	3,523	3,990	+13
Tennessee	552	480	—13	55,770	41,804	—25	3,960	3,400	—14	1,754	1,767	+ 1
Total Eighth Dist. States	4,035	3,185	—21	1,282,092	937,071	—27	272,022	226,844	—17	17,286	17,425	+ 1
Total United States	13,310	11,897	—11	3,451,292	3,065,771	—11	455,869	428,356	— 6	108,708	118,897	+ 9

The District Record

Industry

VARIOUS INDICATORS OF INDUSTRIAL ACTIVITY

	July 1957	July 1957* compared with June 1957	July 1957* compared with July 1956
Steel Ingot Rate, St. Louis area (Operating rate, per cent of capacity)	81	+14%	—11%
Coal Production Index—8th Dist. (Seasonally adjusted, 1947-49=100)	76.7 p	—21	—11
Crude Oil Production—8th Dist. (Daily average in thousands of bbls.)	309.5	—13	—19
Freight Interchanges at RRs—St. Louis (Thousands of cars—25 railroads—Terminal R. R. Assn.)	99.7	+ 3	+ 3
Livestock Slaughter—St. Louis area (Thousands of head—weekly average)	99.3	— 3	+ 1
Lumber Production—S. Pine (Average weekly production—thousands of bd. ft.)	201.7	— 3	+ 2
Lumber Production—S. Hardwoods (Operating rate, per cent of capacity)	74	+3	—20

* Percentage change is shown in each case. Figures for the steel ingot rate, Southern hardwood rate, and the coal production index, show the relative percentage change in production, not the drop in index points or in percents of capacity.

p Preliminary.

Banking

BANK DEBITS[1]

Six Largest Centers:	July 1957 (In millions)	July, 1957 compared with June 1957	July, 1957 compared with July 1956
East St. Louis—National Stock Yards, Ill.	$ 155.2	+12%	+12%
Evansville, Ind.	198.1	+10	+ 2
Little Rock, Ark.	212.9	+ 5	+ 7
Louisville, Ky.	936.5	+11	+ 7
Memphis, Tenn.	767.2	+ 8	+ 7
St. Louis, Mo.	2,559.1	+10	+10
Total—Six Largest Centers	$4,829.0	+10%	+ 9%
Other Reporting Centers:			
Alton, Ill.	$ 40.8	+ 2%	+ 9%
Cape Girardeau, Mo.	18.4	+12	+ 6
El Dorado, Ark.	32.8	+ 4	+ 9
Fort Smith, Ark.	59.9	+ 5	+ 4
Greenville, Miss.	27.4	+ 7	+ 6
Hannibal, Mo.	12.2	+ 5	+13
Helena, Ark.	9.2	+ 3	+18
Jackson, Tenn.	25.2	+10	— 9
Jefferson City, Mo.	112.7	+75	+26
Owensboro, Ky.	46.9	— 8	+ 2
Paducah, Ky.	30.2	— 3	+16
Pine Bluff, Ark.	43.0	+ 4	+27
Quincy, Ill.	44.9	+ 6	+13
Sedalia, Mo.	16.6	+ 7	+ 5
Springfield, Mo.	102.0	+16	+ 6
Texarkana, Ark.	22.6	+ 7	+ 5
Total—Other Centers	$ 644.8	+13%	+10%
Total—22 Centers	$5,473.8	+10%	+ 9%

INDEX OF BANK DEBITS—22 Centers
Seasonally Adjusted (1947-1949=100)

1957 July	1957 June	1956 July
186.6	162.6	171.1

[1] Debits to demand deposit accounts of individuals, partnerships and corporations and states and political subdivisions.

Agriculture

CASH FARM INCOME

(In thousands of dollars)	June 1957	Percentage Change June '57 from June '56	Jan. thru June 1957 compared with 1956	Jan. thru June 1957 compared with 1955
Arkansas	$ 29,774	+15%	—18%	+15%
Illinois	118,739	+ 1	+10	+23
Indiana	64,039	+ 7	+ 6	+ 4
Kentucky	26,209	+ 3	+ 7	— 8
Mississippi	27,100	+28	—19	+11
Missouri	81,315	+ 5	+ 4	+15
Tennessee	25,968	+ 5	— 4	+13
7 States	373,144	+ 6	+ 3	+13
8th District[1]	169,538	+ 8	— 2	+12

Source: State data from USDA preliminary estimates unless otherwise indicated.

[1] Estimates for Eighth District revised based on 1954 Census of Agriculture.

Construction

CONSTRUCTION CONTRACTS AWARDED IN EIGHTH FEDERAL RESERVE DISTRICT *

(Value of contracts in thousands of dollars)

	June 1957	May 1957	June 1956
Total	$111,818	$156,559	$165,310
Residential	45,295	64,841	53,052
Nonresidential	44,202	49,984	50,826
Public Works and Utilities	22,321	41,734	61,432

* Based upon reports by F. W. Dodge Corporation.

EIGHTH DISTRICT WEEKLY REPORTING MEMBER BANKS

(In millions of dollars)

Assets	Aug. 21, 1957	Change from July 24, 1957
Loans[1]	$1,672	$+50
Business and Agricultural	881	+34
Security	65	+13
Real Estate	279	–0–
Other (largely consumer)	473	+ 3
U.S. Gov't. Securities	841	+ 2
Other Securities	223	— 1
Loans to Banks	28	+11
Cash Assets	841	—26
Other Assets	42	+ 1
Total Assets	$3,647	$+37
Liabilities and Capital		
Demand Deposits of Banks	$ 662	$+ 6
Other Demand Deposits	2,002	— 3
Time Deposits	602	+ 2
Borrowings and Other Liab.	89	+30
Total Capital Accounts	292	+ 2
Total Liab. and Capital	$3,647	$+37

Principal Changes in Commercial and Industrial Loans[2]

Business of Borrower	Net Change During 4 Weeks Ended 8-21-57
Manufacturing and Mining:	
Food, liquor and tobacco	$+ 9
Textiles, apparel and leather	+ 5
Metals and metal products	— 7
Petroleum, coal, chemicals and rubber	— 1
Other	+ 1
Trade Concerns:	
Wholesale	— 2
Retail	— 2
Commodity dealers	+30
Sales finance companies	— 3
Public Utilities (including transportation)	+ 3
Construction	+ 1
All Other	+ 2
Total	$+36

[1] Loans are adjusted to exclude loans to banks; the total is reported net; breakdowns are reported gross.

[2] Changes in business loans by industry classification from a sample of banks holding roughly 90% of the total commercial and industrial loans outstanding at Eighth District weekly reporting member banks.

Trade

DEPARTMENT STORES

	Net Sales: July, 1957 compared with June, '57	Net Sales: July, 1957 compared with July, '56	Net Sales: 7 mos. '57 to same period '56	Percentage of Accounts and Notes Receivable Outstanding July 1, '57, collected during June: Instal. Accounts	Excluding Instalment Accounts
8th F.R. District Total	— 8%	+ 5%	–0–%	16%	50%
Fort Smith Area, Ark.[1]	— 2	+ 2	— 2		39
Little Rock Area, Ark.	+ 3	+ 3	— 2	13	43
Quincy, Ill.	—10	+ 2	— 5		
Evansville Area, Ind.	—16	— 1	–0–		
Louisville Area, Ky., Ind.	— 6	+ 3	— 1	15	42
Louisville (City)	— 4	— 2	— 6		
Paducah, Ky.[1]	— 6	+10	+ 6		
St. Louis Area, Mo., Ill.	—13	+ 7	+ 1	16	59
St. Louis (City)	—11	+ 2	— 3		
Springfield Area, Mo.	+ 3	+ 9	+ 4		
Memphis Area, Tenn.	+ 4	–0–	— 1	15	35
All Other Cities[2]	— 3	+ 4	— 1		

[1] In order to permit publication of figures for this city (or area), a special sample has been constructed which is not confined exclusively to department stores. Figures for any such nondepartment stores, however, are not used in computing the district percentage changes or in computing department store indexes.

[2] Fayetteville, Pine Bluff, Arkansas; Harrisburg, Mt. Vernon, Illinois; Vincennes, Indiana; Danville, Hopkinsville, Mayfield, Owensboro, Kentucky; Chillicothe, Missouri; Greenville, Mississippi; and Jackson, Tennessee.

Outstanding orders of reporting stores at the end of July 1957, were 5 per cent higher than on the corresponding date a year ago.

INDEXES OF SALES AND STOCKS——8TH DISTRICT

	July 1957	June 1957	May 1957	July 1956
Sales (daily average), unadjusted [3]	104	116	127	104
Sales (daily average), seasonally adjusted [3]	135	119	127	135
Stocks, unadjusted [4]	n.a.	128	138	128
Stocks, seasonally adjusted [4]	n.a.	139	138	139

[3] Daily average 1947-49=100

[4] End of Month average 1947-49=100

n.a. Not available.

Trading days: July, 1957—26; June, 1957—25; July, 1956—25.

RETAIL FURNITURE STORES

	Net Sales: July, 1957 compared with June, '57	Net Sales: July, 1957 compared with July, '56
8th Dist. Total [1]	+ 7%	+10%
St. Louis Area	+18	+18
Louisville Area	— 9	— 8
Memphis Area	+ 3	—15
Little Rock Area	+ 4	+ 6
Springfield Area	+ 5	+10

[1] In addition to the following cities shown separately in the table, the total includes stores in Blytheville, Fort Smith, Pine Bluff, Arkansas; Owensboro, Kentucky; Greenwood, Mississippi; Evansville, Indiana, and Cape Girardeau, Missouri.

Note: Figures shown are preliminary and subject to revision.