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TENTH FEDERAL RESERVE DISTRICT

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TRI-STATE ZINC AND LEAD

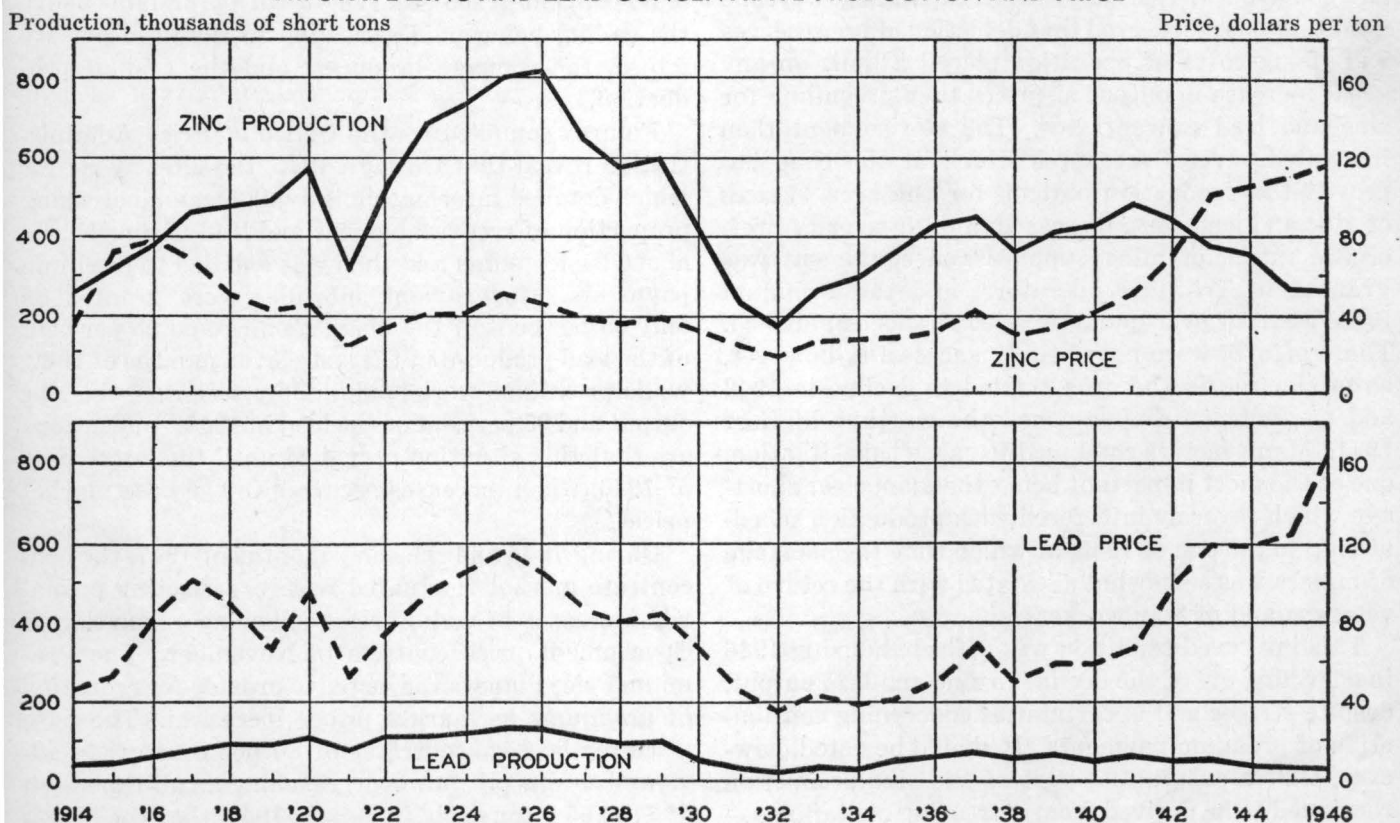
The Tri-State mining district of northeastern Oklahoma and adjoining sections of Kansas and Missouri produces more zinc than any other field in the United States and ranks third in the output of lead. The accompanying chart shows yearly mine production of zinc and lead concentrates in the Tri-State area since 1914 and average yearly prices received per ton, including Government premium payments from 1942 through 1946. Zinc concentrates in the district average approximately 60 per cent metallic content, while lead concentrates average slightly below 80 per cent.

Production Until World War II, production from domestic sources largely supplied the needs for both zinc and lead in the United States and

even provided relatively large quantities for export. Foreign supplies were thus of little importance to our national economy, and it was not until the outbreak of the war that the sharp rise in demand for both zinc and lead necessitated greatly expanded imports to augment domestic production. In an effort to meet urgent war needs, the Government imposed restrictions upon the uses of zinc and lead, established price ceilings, provided premium payments as an incentive to production, and attempted to relieve the manpower shortage in the industry.

Mine production of metallic zinc and lead in the United States reached a total of 768,025 tons of zinc and 496,239 tons of lead in 1942. This was the peak during World War II but was still 27 per cent below

TRI-STATE ZINC AND LEAD CONCENTRATE PRODUCTION AND PRICE



Source: U. S. Bureau of Mines Information Circular 7383.

the record lead output in 1925 and slightly less than the high production of zinc in 1926. Since 1942, the nation's output has declined steadily, and preliminary estimates for 1946 show the lowest production of zinc since 1938 and of lead since 1935. Imports of foreign lead, after having expanded rapidly early in the war, started to decline in 1943 and followed a downward trend throughout the remainder of the war. Early estimates place lead imports in 1946 at a level 68 per cent below the wartime high of 1942 and at the lowest point since 1939. Imports of zinc reached their wartime peak in 1943 and subsequently have declined steadily, although at a much slower rate than that of lead.

In the Tri-State area, production began with the discovery of lead in 1848, although little activity was reported until the start of zinc mining near Granby, Missouri, in 1871. During the 33-year period shown in the chart, annual production in the Tri-State district has varied widely, furnishing from 23 to 66 per cent of the total national output of metallic zinc and from 5 to 18 per cent of the lead. After having reached a peak in lead production in 1925 and in zinc in 1926, the Tri-State area has been faced with the problem of declining output. Production was drastically curtailed during the depression years, falling to the lowest level since 1896.

Extensive surveys were made of the Tri-State district in 1941 to determine under what conditions output could be increased to meet expanding wartime needs. It was discovered that depletion of ore reserves and rising costs of operation placed a limit on any great increase in output at prices then prevailing for zinc and lead concentrates. The Government then instituted several measures which at the time improved the production outlook for the area. Prices of zinc and lead were increased, a high-priority preference rating of mine supplies and equipment was granted to Tri-State operators, and the Premium Price Plan for over-quota production was established. These efforts were not entirely successful, however, as production in the area started to decline in 1942 and has not again approached the wartime high of 1941. Many factors combined to cause this situation, one of the most important being the manpower shortage which severely interfered with production schedules up to the end of 1945, at which time the shortage of miners was somewhat alleviated with the return of veterans and of war workers.

This improved condition was reflected during 1946 in a leveling off of the decline in zinc and lead output, despite strikes and uncertainties concerning continuation of premium payments. It should be noted, however, that a substantial part of the zinc production continued to be derived from retreating old tailings—

a process which in recent years has been of great importance and has added materially to zinc output in the district.

Prices Prior to the war, prices of zinc and lead concentrates in the Tri-State area fluctuated widely, exerting a marked influence upon production. Between 1914 and the start of World War II, the average yearly price per ton of zinc concentrates ranged from a high of \$78.81 during 1916 to a low of \$18.25 during the depression year 1932. Even wider swings occurred in the average price of lead concentrates, with producers receiving \$117.21 a ton during 1925 and only \$35.56 during 1932.

With the outbreak of the war, it became readily apparent that expanding needs for zinc and lead would require production of ores too costly to mine at the prevailing price. Instead of permitting advances in the market price as a means of encouraging increased production, the Government established the Premium Price Plan, to take effect February 1, 1942. The aim was to obtain at ceiling price all output that could be advantageously mined at that price and to pay premiums only on the output which would not otherwise be forthcoming from high-cost mines. Under this plan, premium payments were initiated for production in excess of quotas established for individual mines. The base market price for zinc concentrates of 60 per cent grade was \$55.28 and for lead concentrates of 80 per cent grade was \$76.01, with premiums above the ceiling being paid according to the grade of ore mined, the tonnage produced, and the cost of production.

Figures compiled by the Office of Price Administration reveal that through 1945, the latest year for which detailed information is available, an increasing proportion of recoverable zinc and lead was produced above basic quotas and thus was entitled to premium payments. Government subsidies were granted on only 56 per cent of the district's zinc and 65 per cent of the lead produced in the last eleven months of 1942, while premiums were paid on 96 per cent of the zinc output and 95 per cent of the lead in 1945. Indications are that this situation prevailed until the latter part of 1946, when increases occurred in the base market prices.

During 1946 and the early months of 1947, the concentrate market fluctuated widely, reflecting primarily increases in metal prices following relaxation of Government price controls in November. The Premium Price Plan was adjusted to provide for reduction of premiums as market prices increased. The base price for lead concentrates of 80 per cent grade advanced so sharply, however, reaching an all-time high of \$195.65 a ton early in March, 1947, that the neces-

sity for premiums for over-quota output of lead was wiped out. Increases in the price of zinc concentrates have been much less rapid, with the base price in March unchanged from the \$64.00 level (exclusive of premiums) established last November. The Premium Price Plan is scheduled to expire June 30, 1947, and there is great interest among mine owners, miners, and persons providing service functions to such communities, as to future Government action on subsidy payments.

Reserves Reserves may be considered from three related points of view—estimated quantities of crude ore to be mined, tonnage of zinc and lead concentrates that can be produced from these ores, and number of tons of metallic zinc and lead that can be recovered from the concentrates. The drain upon crude ore reserves in the Tri-State district, as well as in other areas throughout the country, was exceptionally heavy during World War II, and new additions to existing reserves were comparatively small, largely as a result of the limit placed upon extensive exploration by the shortage of skilled personnel. As output over the years had severely depleted the large reserves of high- and medium-grade ores, it was necessary for operators in the district to meet increased needs through exploitation of low-grade ores and through greater utilization of machinery to compensate for the reduced labor supply.

Crude ore reserves in the Tri-State district declined approximately 17 per cent over the two-year period, January 1, 1944, to January 1, 1946, the latest date for which official figures have been published by the Bureau of Mines. Of the 50,736,000 tons of ore (including measured, indicated, and inferred ore deposits) reported to exist in the area at the start of 1946, approximately 49 per cent was located in southwestern Missouri, 37 per cent in the Oklahoma section of the area, and the remaining 14 per cent in Kansas. It should be noted, however, that more than three quarters of the reserves of the Missouri section are in the Oronogo-Webb City area and are now under water. The Bureau of Mines stated in August, 1946, that "to dewater this reserve and provide transportation and milling facilities would require a capital investment of more than \$2,400,000."

Although a large part of the remaining reserves of the Tri-State area is located in virgin low-grade deposits and near old mines, a considerable portion is found in areas where recovery costs are such as to preclude any serious activity unless prices paid for concentrates remain extremely high. This situation is particularly true in parts of the Oklahoma-Kansas section, where extensive pumping operations are necessary. The accompanying table shows estimates of

ore reserves and recoverable quantities of zinc and lead concentrates located in the Missouri, Oklahoma, and Kansas sections of the area.

COMPARISON OF RESERVES IN 1944 AND 1946

	Crude Ore (Short tons)	Zinc Concentrates (Short tons)	Lead Concentrates (Short tons)
Missouri Section			
January 1, 1944.....	28,295,700	797,939	82,058
January 1, 1946.....	24,767,900	688,548	59,443
Net Decrease.....	3,527,800	109,391	22,615
Oklahoma Section			
January 1, 1944.....	24,870,200	815,743	104,455
January 1, 1946.....	18,619,500	569,757	70,754
Net Decrease.....	6,250,700	245,986	33,701
Kansas Section			
January 1, 1944.....	7,678,600	245,683	28,407
January 1, 1946.....	7,348,400	223,914	26,454
Net Decrease.....	330,200	21,769	1,953

Source: U. S. Bureau of Mines Report 3922.

Stated in terms of recoverable metals, these reserves in the Tri-State district are estimated to contain approximately 888,000 tons of zinc and 117,000 tons of lead. Comparison with estimates made by the Bureau of Mines of total reserves in the United States reveals that this area thus contains approximately 8 per cent of the nation's potential supply of zinc and 2.5 per cent of the lead.

Demand Consumption of zinc in the United States showed a marked increase during the war years, with startling changes occurring in the different uses of zinc. Galvanizing, which had been the leading use before the war in relation to total tonnage consumed, rapidly dropped to secondary importance during the period from 1942 through 1944, with the manufacture of brass products accounting for the largest portion of the zinc consumed. When cutbacks in military orders occurred in 1945, however, the particularly urgent need for brass in cartridges and shell cases was sharply reduced and galvanizing once again became the leading use. A recent study of the American Zinc Institute has revealed that there was a relatively close balance between the available supply and the requirements for zinc during 1946, although such a balance was not found among the various grades. Preliminary figures show that zinc consumption declined slightly in 1946, with the greatest reduction occurring in the manufacture of brass products, largely as a result of labor difficulties at brass mills and of increased use of brass scrap. The use of zinc for galvanizing was somewhat lower in 1946 than in 1945, but it appears likely that when steel and zinc supplies permit, consumption will reach a new high in order to fill the great backlog for certain zinc-coated steel products. A sharp increase occurred during 1946 in the use of zinc for die-castings, and with automobile production rapidly expanding, the zinc industry may be hard pressed to supply quantities needed for this use.

Lead consumption in the United States amounted to

approximately 1¼ million tons during 1941, with the manufacture of storage batteries requiring about 25 per cent of the total. Early in the war, demand for lead increased sharply, not only for regular prewar uses but also as a substitute for other metals. In an effort to insure an adequate supply for essential needs, lead was placed under priority control in October, 1941, and remained under allocations until December of last year. In spite of the measures taken, it was necessary during the war years to draw heavily upon Government- and privately-owned stocks to supplement declining domestic production and imports. The

severe shortage of lead, which prevailed throughout 1946, seriously complicated reconversion problems of many consuming industries, such as manufacturers of automobiles, storage batteries, paints, tetraethyl lead fluid, and lead-covered cables. This tight situation will undoubtedly prevail throughout the current year as recent Government estimates place demand in 1947 at 1,200,000 tons, with an anticipated supply (including imports) of only 900,000 tons. The increased price of lead, however, may make additional supplies available, as well as cause a reduced demand through substitution of cheaper metals.

RETAIL CREDIT SURVEY FOR 1946

Total sales of 495 retail firms in the Tenth Federal Reserve District in 1946 showed an increase of 34 per cent over those of the previous year, according to reports received in the Retail Credit Survey. The District survey, conducted annually as part of a national study, covered nine trade groups and secured information on sales, receivables, inventories, and selected balance sheet items. Figures for both 1946 and 1945 were included in the reports, which were received mainly from independent retailers in the District. Figures for the nine lines combined were based upon unweighted aggregates, in which the dollar data of department stores constituted over half of the total.

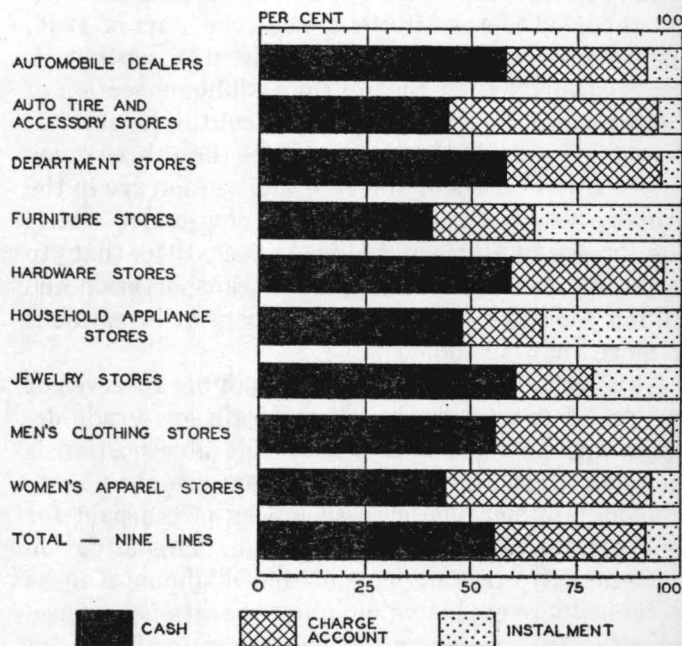
Sales All of the nine lines of business covered in the survey showed increased dollar sales during 1946, with gains ranging from 122 per cent in household appliance stores to 16 per cent in women's apparel stores. The greatly increased output of durable consumer goods was reflected not only in expanding household appliance sales, but also in those of automobile dealers whose sales were up 107 per cent over 1945. In considering these percentages, however, it should be remembered that sales of durable consumer goods in 1945 were abnormally low. Furniture stores, which showed the largest percentage gain of any line of business in 1945, ranked third in 1946 with an increase of 60 per cent, reflecting in part the continued demand for merchandise for new homes. Sales of hardware stores increased 38 per cent, while those of automobile tire and accessory stores, men's clothing stores, department stores, and jewelry stores showed gains somewhat smaller than the average of 34 per cent for the District. It should be noted that a substantial part of the rise in dollar volume of sales was undoubtedly the result of higher prices and continued willingness of customers to purchase more expensive lines of merchandise.

Cash, open credit, and instalment sales of reporting concerns showed considerable change as compared

with 1945, and wide variations occurred among individual lines. Cash sales gained 24 per cent in the nine trade groups combined, with changes ranging from an increase of 133 per cent in cash sales of automobile dealers to a slight drop in those of women's apparel stores. Open credit and instalment buying expanded rapidly during 1946, as shown by gains of 44 and 49 per cent, respectively. Increases in open credit and instalment account sales at household appliance stores and automobile dealers were much larger than the gains reported for the nine lines combined, while those at jewelry stores and women's apparel stores were considerably smaller.

These rates of growth did not change greatly the proportions between cash, open credit, and instalment sales of the nine trade groups combined, although considerable shifting occurred in certain individual lines. Cash sales in 1946 accounted for 56 per cent

PERCENTAGE DISTRIBUTION OF RETAILERS' SALES, 1946
Tenth Federal Reserve District



of the total, as compared with 59 per cent in 1945. Open credit and instalment sales were 36 and 8 per cent, respectively, of the total in 1946, after having been 34 and 7 per cent a year earlier. Automobile dealers and furniture stores were the only two lines of business in which cash sales accounted for a larger share of the total in 1946 than in the previous year. In contrast, a decided shift from cash to open credit sales was reported by department stores and women's apparel stores, while instalment buying in household appliance stores accounted for a relatively larger proportion of total sales in 1946 than in 1945.

Receivables All nine lines of business reported decidedly larger receivables as of December 31, 1946, than at the close of 1945, with the total up 53 per cent for all survey reporters combined. Open credit receivables rose 52 per cent during the year, while those resulting from instalment buying were 55 per cent above 1945. These gains were considerably larger than the increases registered in open credit and instalment sales, thus indicating a somewhat longer average collection period. This condition, however, did not prevail throughout all individual lines, as automobile dealers, automobile tire and accessory

stores, hardware stores, household appliance stores, and women's apparel stores showed much larger increases in charge account sales than in open credit receivables.

Balance Sheet Data Inventories (at cost) in all trade groups combined were up 84 per cent above those at the close of 1945. Household appliance stores and furniture stores showed the largest increases—over 100 per cent—while jewelry stores and hardware stores reported gains of approximately 40 per cent. Stocks of department stores and men's clothing stores increased sharply during 1946, reversing the downward trend of a year earlier.

Current assets and current liabilities of all lines of trade combined increased approximately one fifth over 1945. There was no general pattern among the individual groups, however, as current assets of men's clothing stores advanced 14 per cent while current liabilities showed no change. In contrast, the gain in current liabilities of automobile tire and accessory stores, furniture stores, household appliance stores, and women's apparel stores was more than double the increase reported in the current assets of these lines of business.

BUSINESS AND AGRICULTURAL CONDITIONS

FINANCE

Member Bank Condition During March, Government security holdings of District member banks decreased by 75 million dollars. Of this amount, 48 million represented the decline in reserve city banks and 27 million the decline in country banks. The United States Treasury's debt retirement program was an important factor in reducing the volume of Government securities held by the banks. The Treasury retired for cash 1.0 billion dollars of the Series C-1947 certificate issue which matured March 1, the remaining 2.1 billion being exchanged for Series C-1948 certificates. The Treasury also retired for cash the 1.9 billion dollar Series B-1947 note issue which matured March 15.

Loan volume of the District member banks expanded by 18 million dollars during the month. For the reserve city banks, the increase was 10 million dollars, and for the country banks 8 million.

Deposits of the District member banks contracted by 105 million dollars during this period. The rate of decline was somewhat higher in the reserve city banks than in the country banks, with total deposits declining by 74 million in the former and by 30 million in the latter. In the reserve city banks, the largest decrease was in interbank demand deposits, which declined by 40 million dollars, although demand deposits other than Government and interbank declined by 33

million. In the country banks, the largest decline was that of 27 million in demand deposits other than Government and interbank.

Principal items of condition of all member banks:

	Mar. 26 1947	Feb. 26 1947	Dec. 31 1946
	(In millions of dollars)		
Loans and discounts.....	1,053	1,035	1,003
U. S. Government obligations.....	2,698	2,773	2,754
Other securities.....	322	316	314
Reserve with F. R. Bank.....	775	758	764
Demand balances with banks in U. S.....	626	649	684
Cash items in process of collection.....	221	265	252
Gross demand deposits.....	4,817	4,923	4,912
Deposits of banks.....	924	970	976
War loan accounts.....	142	143	101
Other demand deposits.....	3,751	3,810	3,835
Time deposits.....	658	656	649
Total deposits.....	5,475	5,580	5,561
Borrowings from F. R. Bank.....	4	3	3

Weekly Reporting Banks The reports of the District weekly reporting banks indicate that the loan volume of those banks declined during the first half of April. During the four-week period ended April 16, total loans declined by 11 million dollars, with most of the decrease occurring during April. "Commercial, industrial, and agricultural" loan volume decreased by 10 million dollars.

However, investments expanded sufficiently to increase total loans and investments by 3 million dollars for the four-week period, as Government security holdings increased by 12 million and other invest-

ments by 2 million. All classes of Government security holdings except Treasury bills declined, however, and the bill increase occurred during the first half of April. Certificate holdings were affected by the Treasury retirement for cash of 1.5 billion dollars of the Series D-1947 issue of certificates of indebtedness which matured April 1. The remaining 1.3 billion dollars of the issue was exchanged for Series D-1948 certificates.

Total deposit volume of the weekly reporting banks increased by 22 million dollars during the four-week period from March 19 to April 16. Although inter-bank deposits decreased by 11 million dollars and Government deposits by 2 million, these were more than offset by an increase of 35 million in other classes of deposits.

Principal items of condition of 50 member banks:

	Change from		
	Apr. 16 1947	Mar. 19 1947	Apr. 17 1946
	(In thousands of dollars)		
Loans and investments—total.....	2,125,384	+2,913	-322,649
Loans—total.....	560,294	-10,853	+141,142
Coml., indust., agric.....	370,622	-10,376	+134,905
To security brokers and dealers.....	3,004	-1,293	-3,138
Other to purchase or carry secur.....	25,974	+123	-32,595
Real estate loans.....	66,363	+1,423	+22,385
Loans to banks.....	235	+38	+157
All other loans.....	94,096	-768	+19,428
Investments—total.....	1,565,090	+13,766	-463,791
U. S. Govt. securities—total.....	1,398,159	+11,919	-475,769
Bills.....	80,581	+33,521	-9,383
Certificates of indebtedness.....	300,080	-8,750	-252,432
Notes.....	144,885	-8,499	-202,906
Bonds, incl. guar. obligations.....	872,613	-4,353	-11,048
Other securities.....	166,931	+1,847	+11,978
Reserves with F. R. Bank.....	436,698	+3,963	+6,750
Balances "due from" banks—net.....	273,596	+13,249	-8,707
Demand deposits—adjusted.....	1,501,473	+34,794	+63,642
Time deposits.....	323,015	+427	+19,717
U. S. Govt. deposits.....	68,185	-1,990	-360,074
Deposits "due to" banks—net.....	813,454	-10,989	-29,918
Borrowings.....	1,700	-2,800	-28,450

Bank Debits During the first quarter of 1947, the volume of bank debits in 33 reporting District cities ran 24 per cent higher than during the comparable period of 1946. For the country as a whole, the volume of bank debits in 334 reporting cities was 7 per cent over the corresponding period of the previous year. All of the Federal Reserve districts, except New York, showed increases over the first quarter of 1946, and the New York district's decline of 5 per cent was the result of a decrease in New York City. The increases in the other Reserve districts ranged from 9 per cent in the Boston district to nearly 26 per cent in the Minneapolis district, the latter being the only district whose percentage increase exceeded that of the Kansas City district. The Kansas City district was followed closely by the St. Louis district, with an increase of slightly over 23 per cent.

For the month of March, 1947, the volume of bank debits in the Tenth District was 21 per cent over

March, 1946. This figure was exceeded by the Minneapolis district, with an increase of nearly 27 per cent. For the country as a whole, the increase was 7 per cent. Increased volume of grain and livestock marketing over the comparable periods a year ago was an important factor in the expanded volume of bank debits in this District for both March and the first quarter of the year.

Bank debits to deposit accounts in District cities:

	Mar. 1947	3 Mos. 1947	Change from '46	
	(Thousand Dollars)		Mar. 1947	3 Mos. 1947
	(Per cent)			
COLORADO				
Colo. Springs.....	35,687	96,741	+12	+9
Denver.....	438,220	1,252,757	+19	+21
Gr. Junction.....	12,382	35,344	+28	+25
Greeley.....	17,684	51,476	+36	+31
Pueblo.....	32,809	93,198	+30	+28
KANSAS				
Atchison.....	13,820	41,925	+44	+41
Emporia.....	9,623	27,695	+7	+10
Hutchinson.....	33,885	122,653	+23	+19
Independence.....	6,484	19,436	+18	+19
Kansas City.....	54,983	164,360	+14	+21
Lawrence.....	9,272	27,155	+12	+18
Parsons.....	6,666	20,507	+14	+21
Pittsburg.....	9,680	28,736	+13	+13
Salina.....	28,811	102,238	+29	+33
Topeka.....	76,245	237,879	+14	+25
Wichita.....	191,047	612,056	-1	+15
MISSOURI				
Joplin.....	24,428	75,482	+1	+9
Kansas City.....	906,659	2,667,280	+27	+28
St. Joseph.....	86,108	262,214	+41	+38
NEBRASKA				
Fremont.....	12,598	36,759	+46	+53
Grand Island.....	19,655	56,246	+19	+20
Hastings*.....	14,625	39,389		
Lincoln.....	74,037	202,060	+15	+15
Omaha.....	477,601	1,358,501	+21	+23
NEW MEXICO				
Albuquerque.....	64,029	190,837	+8	+18
OKLAHOMA				
Bartlesville.....	59,961	174,484	+32	+28
Enid.....	30,522	109,448	+49	+66
Guthrie.....	4,228	11,983	+30	+19
Muskogee.....	20,267	68,456	+15	+33
Okla. City.....	275,968	766,778	+22	+22
Okmulgee.....	6,597	17,965	+25	+14
Tulsa.....	329,710	950,104	+20	+24
WYOMING				
Casper.....	18,306	54,843	+30	+37
Cheyenne.....	25,906	81,315	+13	+22
District, 33 cities.....	3,413,878	10,018,911	+21	+24
U. S., 334 cities.....	93,319,000	268,388,000	+7	+7

*Not included in total; new reporting center beginning November, 1946.

DEPARTMENT STORE TRADE

Dollar volume of sales at reporting department stores in this District in March was 11 per cent larger than in the corresponding month a year ago. In the first three weeks of April, sales were little changed from last year, owing principally to the difference in the date of Easter, which fell on April 6 in 1947 and on April 21 in 1946. Dollarwise, Easter trade in 1947 was the largest on record, but unit volume in many lines was below that in 1946. Reduced consumer demand for some types of merchandise is evidenced by the appearance of clearance sales of women's apparel two weeks before Easter this year, and the gains in dollar volume of department store

sales reflect chiefly increased sales of durable goods for which there is yet a large unsatisfied demand.

Department store inventories, in terms of retail value, increased somewhat more than is usual during March, and stocks on hand at the end of the month were 67 per cent larger than a year ago. The increase in stocks was accompanied by a further decline in the volume of outstanding orders, which on March 31 was 43 per cent smaller in value than a year earlier.

Department store sales and stocks in leading cities:

No. of Stores	SALES		STOCKS	
	Mar. '47 comp. to Mar. '46	3 Mos. '47 comp. to 3 Mos. '46	Mar. 31, '47 comp. to Mar. 31, '46	
(Per cent increase or decrease)				
Denver.....	6	+21	+20	+75
Pueblo.....	3	+25	+15	+56
Hutchinson.....	4	+5	+6	+73
Topeka.....	4	+9	+13	+56
Wichita.....	4	-1	-3	+47
Joplin.....	3	+12	+9	+109
Kansas City.....	8	+14	+10	+76
St. Joseph.....	4	+9	+6	*
Omaha.....	5	+11	+10	*
Oklahoma City.....	6	+4	+5	+45
Tulsa.....	5	+5	+6	+75
Other cities.....	32	+10	+8	+65
District.....	84	+11	+10	+67

*Not shown separately but included in District total.

INDUSTRIAL PRODUCTION

Meat Packing The volume of cattle slaughter in the District during March was 3 per cent over the February volume and 82 per cent greater than in March, 1946. Similarly, calf slaughter was up 9 per cent from February and was 154 per cent over the volume in March, 1946. Both hog and sheep slaughter for the District in March were on a reduced scale, the reductions from February amounting to 28 and 3 per cent, respectively. It is significant that the total slaughter of cattle and calves during the first three months of this year was about 64 per cent greater than during the same period last year.

Flour Milling Flour milling operations in the Southwest in March averaged about 102 per cent of capacity. Flour output for the month was 25 per cent over the production in March, 1946. Advancing wheat prices and some resistance to higher flour prices caused mills to exercise added caution in purchase and sales activities. Several milling concerns report that the flour business is fast returning to its prewar competitive status.

Sales of flour in the Southwest during early April averaged about 85 per cent of capacity compared to approximately 45 per cent in mid-March. Over half of the sales in the Southwest during early April were for commercial export or went to the Production and Marketing Administration for shipment abroad. In the nine months July, 1946, through March, 1947, exports of grain and grain products totaled 360.4

million bushels. Of this total, 277.8 million bushels were wheat and flour. About two thirds of the nine months' total was exported by the Production and Marketing Administration. The balance moved through regular commercial trade.

Petroleum Crude oil production in the Tenth District in March was 6 per cent above that of the corresponding month a year ago, with all states, except Nebraska, contributing to the increase. Daily average production in March was 885,000 barrels—a rate slightly below that reported for February.

During the first two months of 1947, total well completions in the Tenth District were 54 per cent above those in the corresponding period last year. This increased activity has been largely in response to higher prices paid producers and to expanding demand for refined products and has been made possible through the availability of personnel and equipment for conducting extensive exploration. The largest gain shown by any state in the District was in Oklahoma, where drilling activity was up 71 per cent. Kansas and New Mexico also reported a greatly increased number of well completions.

Employment Total nonagricultural employment in the Tenth District in January was 4 per cent below the level reported for December but was 3 per cent above that of January a year ago. Manufacturing employment in the District declined 1 per cent from December to January but was still 9 per cent higher than that reported for January, 1946.

The labor market remained fairly tight in the Denver area during February, according to a recent Department of Labor report. In both the Oklahoma City and Albuquerque areas, however, labor surpluses already prevailing increased from January to February, and in the Cheyenne area the upward trend in unemployment is expected to continue until weather conditions permit greater activity in road and building construction. Moderate surpluses of labor were reported in the Topeka and Wichita areas and in the Kansas City (Missouri and Kansas) area, where additional postholiday layoffs occurred during February in trade and service establishments and in construction. In the Lincoln area, expansion in manufacturing activity was not sufficiently large to offset declining construction employment and the existent labor surplus rose slightly during February. The prevailing excess of workers in the Tulsa area remained unchanged during February, as gains in construction and air transportation were balanced by reductions in manufacturing, Government, and railroad transportation. It is significant that, although an over-all surplus of labor was found in many areas

of the District in February, a pressing need was reported in these areas for certain categories of skilled workers.

Estimates of nonagricultural employment as reported by the Bureau of Labor Statistics:

	January, 1947		Change from 1946	
	Total	Manufacturing*	Total	Manufacturing
	(Number)		(Per cent)	
Colorado.....	275,000	55,700	+8	+16
Kansas.....	339,000	78,900	+3	+1
Missouri.....	902,000	345,000	+5	+12
Nebraska.....	243,000	44,100	0	0
New Mexico....	83,100	10,300	0	+27
Oklahoma.....	339,000	54,700	+1	-4
Wyoming.....	58,700	5,900	-15	+11
Seven states...	2,239,800	594,600	+3	+9
United States..	41,795,000	15,372,000	+13	+16

*Estimates for manufacturing employment have been revised and are not directly comparable to estimates for total nonagricultural employment.

AGRICULTURE

Crops Most regions of the District received moderate to heavy rains in April, and several sections of eastern Kansas, western Missouri, and north-eastern Oklahoma were subjected to floods early in the month. In these areas, much crop land was damaged, and several weeks of drying weather will be required before replanting of crops can be accomplished. Generally, however, the soil moisture situation in the District in mid-April was excellent. March plantings of corn, oats, and barley were rather seriously delayed in the southern part of the District, while plantings of oats and barley in the northern part of the District were little more than one third completed by the second week in April.

Wheat made an excellent spring growth, and is in exceptionally good condition. It now appears definite that winter killing and wind damage were very small. The prospects for wheat in this District indicate another record wheat crop in 1947. The Department of Agriculture winter wheat crop estimates of April 1 place the production of the District at 507,707,000 bushels. This figure compares with the 1946 District output of 455,617,000 bushels, or an increase of 11 per cent. The Kansas crop for 1947 is estimated at about 247 million bushels, or 9 per cent above 1946.

The April 1 range report indicated that western ranges were in fair to good condition during March. The demand for the Osage-Flint Hills pastures of Oklahoma and Kansas is said to have been the smallest in years.

Grain prices at Kansas City were generally steady to slightly lower in March and April. The excellent crop prospects announced by the Department of Agriculture had very little influence on the cash grain market. The normally price depressing effect of such a favorable crop outlook was largely offset by known world scarcity of grain.

The lower range of Kansas City cash grain prices:

	Apr. 15 1947	Mar. 31 1947	Feb. 28 1947	Mar. 29 1946
No. 1 dk., hd. wheat, bu..	\$2.63½	\$2.64	\$2.48	\$1.73¾
No. 2 mixed corn, bu.....	1.74½	1.78¼	1.48½	1.16¾
No. 2 white oats, bu.....	.90	.92½	.88½	.79¾
No. 2 rye, bu.....	3.05	2.90	3.30	2.24
No. 2 barley, bu.....	1.51	1.45	1.36	1.21
No. 2 white kafir, cwt.....	2.95	2.85	2.60	2.51½

Livestock Receipts of cattle and calves at principal markets of the District in March were about 25 per cent greater than in February. The total receipts for the first three months of the year were about 60 per cent above those in the corresponding period last year. Arrivals of hogs and sheep in the first three months of the year were down slightly from the receipts in the same period a year ago.

Livestock prices at District markets in April were mostly steady to slightly lower. The top price of beef steers at Kansas City on April 15 was \$25.25 per hundredweight—the same as that recorded in late March. The top hog price at Kansas City on April 15 was \$24.50 per hundredweight. This compares with \$27.00 per hundredweight late in March.

Top carlot livestock prices at Kansas City:

	Apr. 15 1947	Mar. 1947	Feb. 1947	Mar. 1946	Mar. 1945	Mar. 1944
	(In dollars per hundredweight)					
Beef steers.....	25.25	28.00	25.50	17.65	16.75	16.25
Stocker cattle.....	20.50	21.75	20.50	16.60	15.00	15.00
Feeder cattle.....	22.50	24.25	22.25	16.50	15.00	14.35
Calves.....	23.00	28.00	28.50	17.00	14.00	14.00
Hogs.....	24.50	30.00	27.35	14.55	14.50	14.35
Lambs.....	22.50	25.00	25.00	15.65	16.85	16.25
Slaughter ewes.....	10.25	10.35	8.85	8.00	9.25	9.00

Range cattle and sheep generally came through the winter in good condition. There are some thin cattle and sheep in areas where range feed was short during the severe winter weather and where supplemental feeding was necessary. The few reports that are available concerning the spring pig crop are not very favorable. The cool, damp weather that has prevailed so far this spring has apparently caused slightly heavier than average losses of pigs at farrowing.

The report of the number of cattle on feed in the eleven Corn Belt states on April 1 shows an increase of 13 per cent over the number on feed on the same date a year ago. The changes shown for the Corn Belt states in the Tenth District are: Missouri, an increase of 38 per cent; Nebraska, an increase of 8 per cent; and Kansas, a decrease of 4 per cent. The number of cattle on feed on April 1 in Colorado appears to be down slightly from last year. The report generally indicates that feeders marketed cattle in the period from January 1 to April 1 more rapidly than they had previously intended. The volume of cattle receipts at markets in the District during this period bears out this observation.