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A Look at American Farm Credit Experience

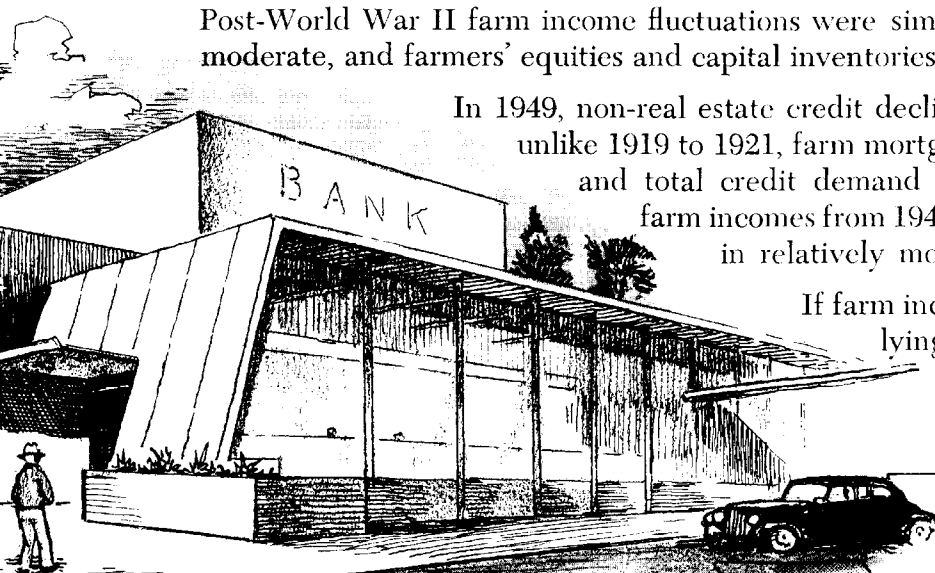
COUNTRY BANKERS look ahead each fall to next year's probable seasonal peak credit needs and, at the same time, evaluate the cyclical and longer-term trends in their farmer-customers' needs which reflect several factors.

In the cycle from 1919 to 1921, human and economic forces resulted in less new short-term credit but an increase in mortgage debt outstanding. Trendwise, over the period 1919 to 1932, farm mortgage debts outstanding also declined, although less than the other major type of credit.

Post-World War II farm income fluctuations were similar to two decades before, although more moderate, and farmers' equities and capital inventories were higher.

In 1949, non-real estate credit declined as it had nearly 30 years before. But unlike 1919 to 1921, farm mortgage volume recorded continued to increase and total credit demand remained high. Downward adjustments in farm incomes from 1948 through 1955, although moderate, resulted in relatively more long-term credit, and more total credit.

If farm income remains near its present level, the underlying forces at work appear to net out to some lessening in the future demand for new credit despite the offsetting influence of a substantial capacity for further borrowing.



Federal Reserve Bank of St. Louis

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A Look at American Farm Credit Experience

Country bankers look ahead each fall to next year's probable seasonal peak credit needs . . .

OF THE APPROXIMATELY 14,000 COMMERCIAL BANKS in the United States, over 90 per cent extend credit to farmers. During the fall of the year, a period of seasonal increase in farm receipts, many rural bankers have a special interest in future credit demand and volume; for it is then that they typically reinvest "paid off" agricultural loans in securities, the maturities of which they try to make coincide with the level of bank deposits and seasonally high total credit demand in the summer. If their anticipations are realized, rural bankers will consider this part of their investment portfolios successfully managed. The problem outlined suggests, then, that it might be helpful to observe the seasonal magnitude of peak credit needs and evaluate the influences which will likely affect year-to-year levels of these peaks. The present article proposes to investigate the dual problem from the lenders' standpoint.

In Eighth District states as a whole, cash farm receipts are seasonally high from September through January, exceeding by 80 per cent the average of February through August, months in which cash expenses are seasonally high. As a result of diverse fluctuations in receipts and expenses, the total volume of agricultural credit held by district member banks on recent mid-year and fall call report dates has ordinarily exceeded by 15 to 20 per cent that held on December 31 following the heavy marketing season (Chart 1). For individual commercial banks within the district, the magnitude of farm credit seasonality has varied, depending largely on the type of farming in a particular community. Thus, in many areas of Mississippi, Arkansas, and Tennessee where the highly seasonal sales of cotton accounted for sizable proportions of all cash farm receipts, total agricultural bank credit outstanding on June 30 and fall call report dates was more than twice as large as the amount outstanding on December 31. On

the other hand, farm credit seasonality was considerably smaller in such areas as the northwestern Arkansas and southern Indiana broiler producing areas, and the northern Missouri general farming areas, where production expenses and cash receipts were more evenly distributed throughout each year.

A number of things bear on the precise shape of the seasonal swing in outstanding production credit for agriculture in all areas. In cotton production, for example, the timing of the need for bank credit will vary one crop year as against another in response to weather, particularly during harvest time, insect infestation, the relationship of market price to loan value, and a variety of other conditions. So it is with production of other field crops and certain livestock production as well. Broadly speaking, the seasonality of farm credit demand differs not only by type of farming areas, but for the same areas from year to year.

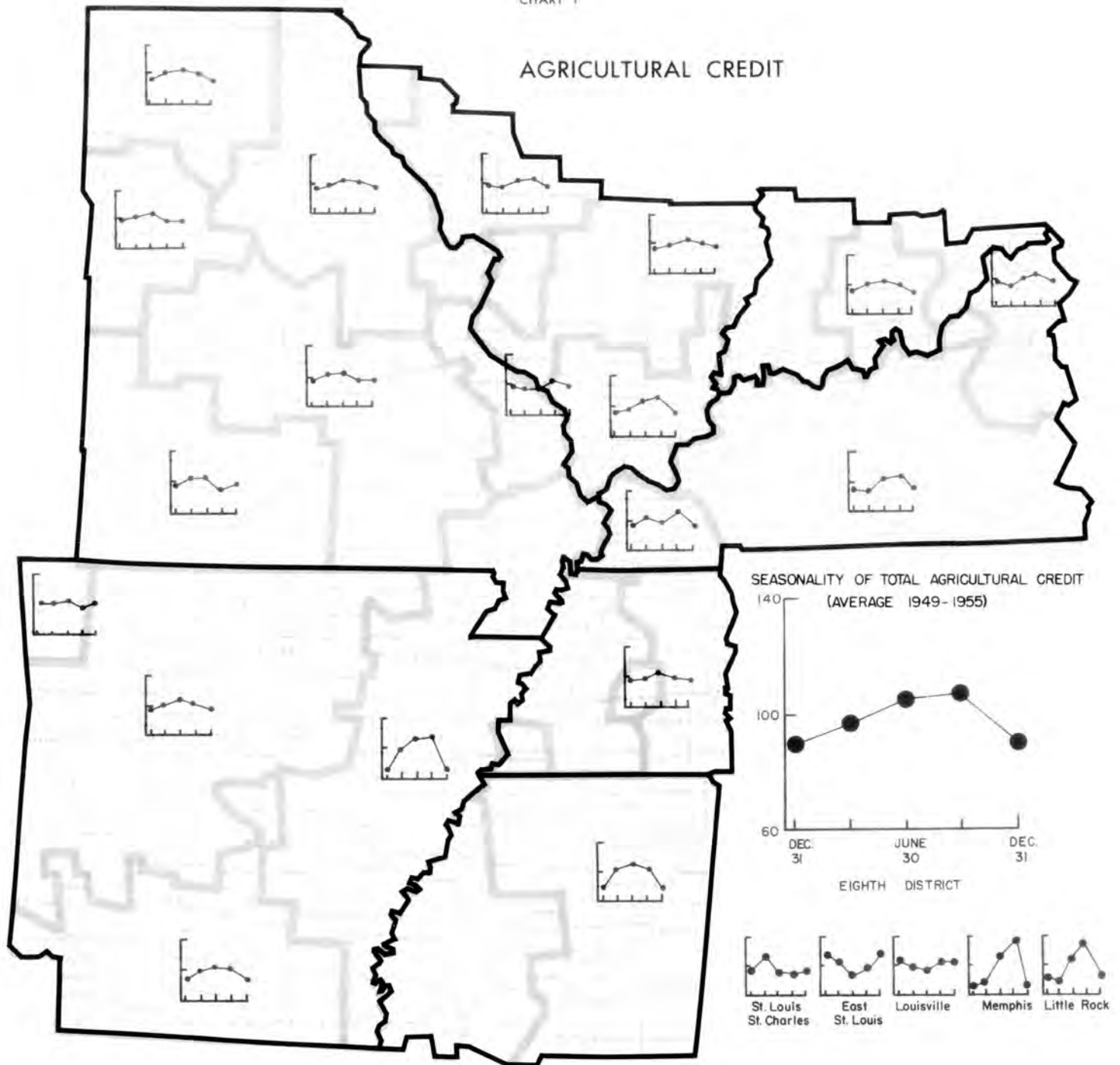
Although the banker can seldom foretell the amount and timing of the peak demand within very exact limits, he recognizes the existence of a seasonal fluctuation within each year and attempts to adjust his portfolio to accommodate such variations.

. . . and, at the same time, evaluate the cyclical and longer-term trends in their farmer-customers' needs, which reflect several factors.

There is, in addition to the typical swing within each year, another group of forces at work on the outstanding volume of farm loans from banks. To distinguish this group from the seasonal ones, it may be helpful to call them "cyclical" and "secular trend" forces. As in the case of seasonal fluctuations, the problem of estimating agricultural credit extensions and repayments over longer periods—requiring adjustment for both cyclical and trend developments—is likewise difficult. However, careful observation of the relationships between credit activity and other agricultural data in the years following the two World

CHART I

AGRICULTURAL CREDIT



Wars reveal four major historical influences on the swings in demand for new farm credit and total volume outstanding. Briefly, these influences may be characterized as follows: (1) The level of current farm income. (2) The outlook of both farmers and

lenders, i.e., expectations as to the future course of agricultural prices and income. (3) Capital investment opportunities in buildings and machinery and possibilities of profitable applications of new techniques. (4) The borrowing capacity of farmers.

These four major influences vary in importance over time, and a marked change in one often results in changes in the others. They have in the past exerted both short-run and long-run forces calling for diverse combinations and magnitudes of credit. An analysis of agricultural credit activity during the past several decades illustrates the shifting, fluctuating impact of the influences above.

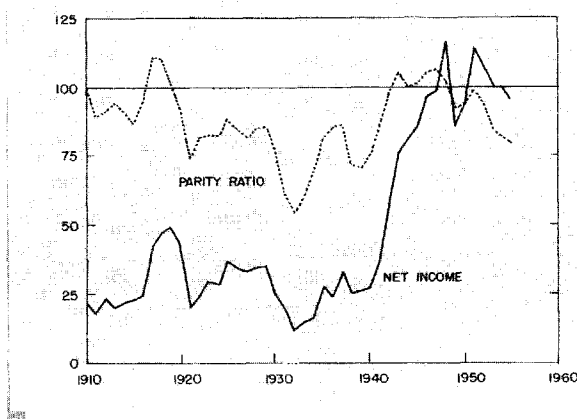
Periods similar to the present in which per capita net income from agriculture and the parity ratio are declining or are at low levels relative to previous peaks present the most serious problems for both borrowers and lenders. Thus, there is a strong emphasis in this article on periods in which the economic position of agriculture has deteriorated.

In order to observe the interplay of major forces, two periods of declining farm income will be studied, the years after World War I and those after World War II. In each period there was a brief, though sharp, income decline followed by a few years of rising income which in turn were followed by a longer period of declining income.

In the cycle from 1919 to 1921, human and economic forces resulted in less new short-term credit but an increase in mortgage debt outstanding.

During the sharp income decline from 1919 to 1921, per capita net income from agriculture and the parity ratio declined by 59 per cent and 28 per cent, respectively (Chart 2). By any standards these were severe adjustments. Income, outlook, investment require-

CHART 2
Parity Ratio and Net Agricultural Income
(Income on Farm Population Per Capita Basis)
1947-1949=100

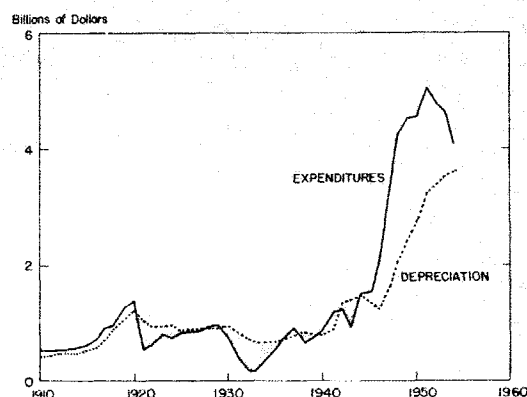


Major sources for this and subsequent charts include *Agricultural Statistics, 1954* and previous years, and *The Farm Income Situation, October 1955*, United States Department of Agriculture.

ments, and capacity to borrow were all negative in their influence on new farm credit activity.

The outlook after the precipitate income decline was, of course, pessimistic; consequently, farmers and lenders became more reluctant to employ capital by the use of credit. Capital investment requirements, perhaps fortunately for farmers, were at a low level, for the nation's agriculture had just passed through a decade of capital accumulation in which capital expenditures exceeded depreciation by about one-fifth (Chart 3).¹ This decade of rapid capital accumula-

CHART 3
Farm Capital Expenditures and Depreciation
(Billions of Dollars)

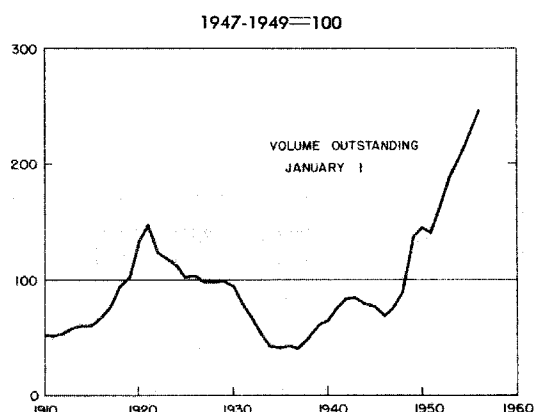


tion in part made possible a sharp drop in farm capital expenditures, including buildings, machinery, and motor vehicles which, in 1921, were 61 per cent below those of 1920. Expanding farm mechanization, just getting under way in 1921, was temporarily slowed as tractors purchased by farmers declined by more than one-half from the level of 1920. From 1921 to 1924 capital expenditures remained at an extremely low level and depreciation was 30 per cent greater than capital investment. This very low rate of capital investment was in a very real sense a form of spending previous savings. Capital consumption of this magnitude from 1921 to 1924 plus low prices for property purchased by farmers enabled them to reduce the volume of new farm mortgages recorded.

For a number of reasons, chief of which was an immediate and severe reduction in income and a consequent debt carryover, non-real estate credit advanced sharply in 1920 (Chart 4). It declined equally fast

¹ The capacity of farmers to defer capital expenditures to compensate partly for income adjustments should be recognized, along with fluctuations in industrial capital investments, as a contributing factor to national business cycles. Another disadvantage in depression periods of years past has been the serious deterioration of the farm productive plant as a consequence of capital consumption.

CHART 4
Non-Real Estate Credit



in 1921, largely because of refinancing with long-term credit, unfavorable outlook, capital disinvestment, and lower prices for commodities purchased. In the meantime the volume of new farm mortgages recorded in the United States in 1921 was 29 per cent below the 1920 volume for many of the same reasons that non-real estate credit declined (Chart 5). The volume of commercial bank farm mortgages recorded also declined, although proportionately less than that of other lenders.

However, the debt repayment capacity of United States farmers declined more in 1921 than did the volume of new farm mortgages recorded, with the consequence that outstanding mortgage debt increased. By 1923 it had been forced up to a level of 20 per cent of the still relatively inflated farm real estate values, despite a consistent decline in the volume of new farm mortgages recorded.

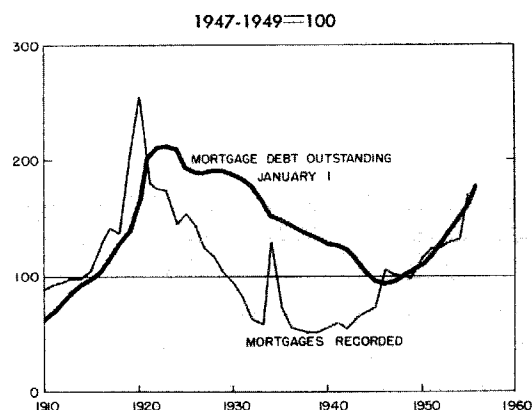
Trendwise, over the period 1919 to 1932, . . .

A longer period of more than a decade of low farm income resulted in a farm debt situation in many ways similar to but in others different from the situation resulting from the short-run circumstances described above. During the thirteen years from 1919 to 1932, per capita net farm income declined substantially with the bulk of the loss in the last three years. There were a few years of stable or rising income in the interim, particularly from 1922 through 1929. But at all times during the thirteen-year period the income level was more than one-fourth below that of 1919, and during the same period the parity ratio declined 50 per cent.

. . . farm mortgage debts outstanding also declined, . . .

In the sustained period of falling or reduced income from 1919 to 1932, as in the recession of 1920-1921,

CHART 5
Farm Mortgages in the United States



commercial bank non-real estate farm credit was reduced. The declines were moderate in the 1920's but severe in the early 1930's. By the end of 1934 bank non-real estate farm credit had dwindled to approximately one-sixth of the level of 1920. The volume of commercial bank new farm mortgages also declined persistently from 1920 to 1934, as did the total for all lenders in the United States. By 1933 both were only about one-fifth of their 1920 volumes. Such drastic declines were, of course, a concomitant of the great deflation and the accompanying bank failures of the early '30's. But they reflected, in addition to reduced income, an unfavorable agricultural outlook, ability to defer capital investments, and reduced borrowing capacity.

The outlook, colored by the sharp reductions in income and the parity ratio, was understandably pessimistic and had a strong dampening effect on new credit activity. Farm capital expenditures were a negative credit influence as non-real estate farm capital inventories had increased sharply during the immediate post-World War I years. From 1921 on, however, annual capital expenditures were at a very low level and by 1932 had declined to 17 per cent of the 1920 level.² The borrowing capacity of farmers also declined during most of the 1920's and early 1930's as the balance sheets of most farmers became less favorable, the value of all farm property dropping two-thirds and equities of farmers shrinking to a low level.

Farm mortgage debts outstanding, after reaching a high of nearly \$11 billion in 1922, declined during

² The negative net farm capital investment of approximately \$3 billion for the years 1921-1935 indicates the great extent to which farmers could use capital-expenditure flexibility as a shock absorber for income fluctuations.

the sustained period of reduced income. By the end of 1933, the long-term farm debt was 70 per cent of the 1920 level of about \$8½ billion, and the long-term debt held by commercial banks was less than one-half the 1920 figure. Income, outlook, ability to defer investments, and capacity to borrow were affecting long-term farm debt during the decade ending in 1933 in much the same way as they did during the 1919 to 1921 period. There was, however, one major exception: during the brief post-World War I deflation the repayment of farm mortgages was less than the volume of new farm mortgages recorded. This relationship was reversed by the end of 1922, and in the subsequent two decades payment or foreclosures of farm mortgage debts exceeded the volume of new farm mortgages recorded, resulting in the reduction of farm mortgage debts just observed.

. . . although less than the other major type of credit.

Even though the farm mortgage debt was reduced during the prolonged period of declining income through 1932, it decreased only moderately compared to the precipitate drop in non-real estate farm credit. Such an adjustment within the agricultural credit structure likely was caused by the compulsion of borrowers to place liabilities on a "stretched out" repayment basis during the periods of reduced income. Moreover, the shift from short-term to long-term indebtedness provided a shock absorber against income fluctuations. As suggested in more detail below, shiftability to more long-term and less short-term credit, or vice versa, helps to explain more recent variations in the demand for credit.

Post-World War II farm income fluctuations were similar to two decades before, . . .

A further step in examining the factors affecting agricultural credit activity involves a comparison of the post-World War I farm income and debt figures with post-World War II data. In doing so, several similarities are apparent. Incomewise, World War II was followed immediately by increasing per capita farm income, then by a brief period of reduced farm income, a short period of stable or rising farm income and, during the greater part of the time from 1948 to 1955, a long period of declining per capita income. This was essentially the same sequence of events which followed World War I.

. . . although more moderate, . . .

Fluctuations in key agricultural aggregates have thus far been more moderate, however, than they

were after World War I. The index of per capita net income (1947-1949=100) dropped from 116 in 1948 to 86 in 1949, a fall of 26 per cent, whereas the index had changed from 49 in 1919 to 20 in 1921, a drop of nearly 60 per cent. Moreover, the net drop during the longer period from 1948 to 1955 approximated 17 per cent compared with a 76 per cent decline between 1919 and 1932.³ The more moderate declines in farm income during the decade following World War II are largely accounted for by the favorable food and fiber demands generated by a high level of national economic activity, the price support programs of the Federal Government, the Korean conflict, and international assistance programs. In addition, increased farm mechanization and other factors from 1948 to 1955 increased output per worker by approximately one-third. The increased productivity accompanied a net outmigration of approximately 20 per cent from farm work to urban employment opportunities, which in turn contributed to relatively stable per capita net income of those who chose to remain on farms. By contrast, from 1919 to 1932 there was an increase in the farm population, especially toward the end of the period as growing unemployment in cities impelled the return of many young people to the farm.

. . . and farmers' equities and capital inventories were higher.

There were other dissimilarities of varying degrees between the two postwar periods. Equities in farm real estate from 1949 to 1955 averaged 90 per cent or more, higher than they had been at any time during the 1920's or 1930's. Furthermore, the total volume of agricultural credit in the post-World War II decade was only moderately greater than it had been in the 1920's, while the total value of farm property was nearly twice as great. A higher price level contributed to higher farm property values, as did the large inventory of machinery and equipment, deferrable items of capital expenditure, which on January 1, 1955, approximated 16 per cent of the total real estate values compared with approximately 6 per cent of real estate values during the 1920's.

In 1949, non-real estate credit declined as it had nearly 30 years before.

Apparently, short-term credit extensions and repayments after World War II have followed closely the pattern established after World War I. During

³ It should be observed that the disastrous drop in the earlier period occurred largely between 1929 and 1932. The index rose from 20 in 1921 to 37 in 1925, then drifted off to stand at 35 in 1929—a figure 29 per cent below that of 1919. The index fell to a low of 12 in 1932, the year of deepest agricultural depression.

the farm income recession from 1948 to 1949, the rapid national increase in non-real estate loans was slowed down considerably, just as it was in the early 1920's, except that in 1949 the reduction was on more or less a voluntary basis. The trend of short-term debt was temporarily reversed in 1950, although less sharply than three decades earlier when the economic situation in many cases compelled farmers to re-finance or repay short-term debts. The one-year lag in trend reversal in both periods of declining income probably was the consequence of loan renewals and the reduced ability to repay new debts during the initial phases of receding income.

But unlike 1919 to 1921, farm mortgage volume recorded continued to increase, . . .

In part because the preceding speculation in farm land and the economic recession of 1948-1949 were both more moderate than in the post-World War I period, there was little immediate negative effect on the volume of farm mortgages recorded or outstanding. Indeed, the volume of new farm mortgages recorded remained stable in 1949, whereas from 1920 to 1921 new recordings had decreased sharply.

. . . and total credit demand remained high.

Contributing to the increased use of credit in 1949 and, as will be seen later, in subsequent years, was a tremendous backlog of capital investment opportunities as a consequence of nearly a quarter of a century of less-than-normal growth in farm capital outlays. From 1920 to 1945 there was an actual negative net investment of more than \$3 billion which farmers had, in effect, borrowed from themselves by deferring capital investments until after 1945.⁴ This large disinvestment, plus a lack of normal growth of even greater significance, was "repaid" in the postwar years by a high rate of net capital inputs. The full magnitude of the force exerted by the tremendous backlog of farm investment opportunities in 1949 plus a continuing rapid rate of technological innovation were not to be fully realized until several years later as farm capital expenditures continued to climb. In 1951 they reached a yearly high of more than \$5 billion; they then dropped gradually to about \$4 billion in 1954, but in 1955 have turned up again.

A continuing satisfactory balance sheet position, indicating a high capacity to incur debts, also supported the demand for farm credit in 1949 and 1950

for the United States as a whole. Farmers had a 90 per cent equity in their physical assets on January 1, 1949, and had liquid assets of \$21.6 billion, more than twice their financial obligations. In retrospect, it appears that an increase of 6 per cent in total credit volume during 1949 was not unduly large.

Downward adjustments in farm incomes from 1948 through 1955, although moderate, . . .

During the longer period from 1948 to 1955, as in the one and one-half decades following 1919, farmers were beset by an unfavorable relationship, at least according to World War II standards, between prices received for commodities sold and prices paid for goods purchased. From 1948 to October 1955, the parity ratio declined by 22 per cent. However, unlike the more severe depression period from 1919 to 1932, the per capita net income of farm people recovered quickly from the reduced 1949 level, largely as a result of increased demand for farm products during the Korean conflict and greater production per farmer. Thus, in spite of a persistent downward adjustment in the parity ratio during much of the post-World War II period, per capita farm income reductions were relatively moderate.

. . . resulted in relatively more long-term credit, . . .

Following the temporary income recovery in 1950 and 1951, lower per capita income for a prolonged period of time was in good part responsible for a shift within the farm credit structure toward a higher proportion of long-term credit, a shift which has run against the Twentieth Century trend toward a higher proportion of non-real estate obligations. By January 1, 1956, the real estate debt will probably account for 53 per cent of all farm debts compared with 47 per cent on January 1, 1952. Commercial bank credit has reflected this same trend. Commercial bank non-real estate farm credit outstanding on January 1, 1956, is expected to be about 5 per cent higher than it was on January 1, 1952, whereas bank real estate farm credit outstanding is expected to be about one-fourth more than it was four years ago.

. . . and more total credit.

Capital investment needs and opportunities for technological application exerted strong positive pressures on total credit demand during most of the post-World War II period. From 1946 to 1953 farm capital expenditures were more than 60 per cent greater than farm capital depreciation. Total net investments of nearly \$13 billion during that period largely represented a catching up process necessitated by the very low

⁴ It was pointed out earlier that the negative net investment figure for the years 1920-1935 was also \$3 billion. For the decade 1936-1945 net investment was approximately zero.

rate of investment during each year of the previous quarter century. The rapid consolidation of farms into larger units was responsible for an additional upward push to credit volume during the post-World War II decade, for consolidation into larger units went hand in hand with the rapid increase in farm mechanization, outmigration, and the rapid application of new technologies. Forces calling for a high rate of capital investment persisted through 1953, and any major negative influence on credit activity resulting from a lack of opportunities for additional capital expenditures during the last two years was offset by one or more of the other three factors, all of which were positive.

Capacity to incur obligations, as measured by the net worth figures reported in the *Balance Sheet of United States Agriculture*, was certainly improving during the 1948 to 1955 period. Farmers' equities in physical assets averaged near or above 90 per cent during the entire period. In addition, farmers' financial assets were either stable or rising during the entire decade immediately following World War II. By the end of 1949 farmers' financial assets totaled \$20 billion, one-third more than at the end of World War II, and they increased each year from 1949 to 1955. By January 1, 1955, farmers' financial assets were more than four times as great as they were in 1940. Financial assets of farmers during the 1949 to 1955 era, after allowance for a higher price level, were about twice the 1920 amount, and the capacity of farmers to incur obligations in cases where attractive investment opportunities existed was thus much greater than it had been after World War I.

*If farm income remains near its present level,
the underlying forces at work appear to net
out to some lessening in the future demand
for new credit . . .*

On the assumption of continuing moderate per capita farm income fluctuations at levels of 15 to 20 per cent below the two peaks of 1948 and 1951, what do the major influences on farm credit demand during the periods examined suggest about probable future trends in United States agricultural credit activity, including commercial bank credit services? Continuance of the current price and income situation may lead to anticipations which will within a few years inhibit the rapid increase in non-real estate debt. Reduced repayment capacity as a result of lower income would also necessitate longer repayment plans. As a consequence, the volume of new farm mortgages and outstanding farm real estate debt would likely rise, as it has during the last three years. Less non-real estate credit and

more farm mortgage credit might then result only in an additional shift to relatively more real estate secured credit. On the other hand, if a more severe and prolonged per capita adjustment should be experienced, the outlook of lenders as well as farmers could become very dismal indeed, and have a negative effect on total new credit expansion.

Insofar as the influence of the "capital investment opportunities" factor is concerned, the present high level of farm capital inventories suggests that total capital expenditures could readily decline if farm income remains near existing levels or if there are further income reductions followed by a less favorable outlook. Apparently, such a downward pressure on total agricultural credit demand was temporarily in evidence in 1954, when capital expenditures declined 12 per cent from the preceding year and the inventory value, adjusted for price level, of machinery and motor vehicles on United States farms declined 3 per cent. Too, in the past, sustained periods of reduced income have led to lower land prices. And, while currently indexes of farm land prices are tilted up, if it is assumed that these prices would eventually adjust downward in response to a sustained period of reduced income or still further income reductions and some deterioration in the outlook, credit demands for the purchase of additional land would likely decline concomitantly.

However, capital expenditures, like farmers' outlook, are probably among the least predictable of all the factors which affect credit needs. Forces which suggest a decline in capital purchases may be moderated by a high replacement expenditure on farm machinery inventories which now are four times greater than in 1920. New developments, which tend to stimulate capital expenditures for field and farmstead equipment, may also be a moderating force. And no one knows exactly how much additional outmigration of farmers and land consolidation will take place before a practical optimum is reached in the effective use of existing machinery or future machinery now on the drawing boards.

*. . . despite the offsetting influence of a substantial
capacity for further borrowing.*

Relatively high capacity to incur debts is likely to be a positive factor in the farm credit picture for some time to come. Substantial equities in relation to indebtedness and a large accumulation of farm capital items suggest that agriculture as a whole in 1955 may be in a stronger position to increase further the use of real estate and non-real estate credit, notwithstanding high operating expenses, than was the case in the 1920's. Given a high marginal return for investment opportunities such as labor-saving

machinery and farmstead equipment used by progressive farmers, capacity to incur obligations may be an important, if uncertain, force making for persistently strong credit demand.

Upon the assumption of moderate fluctuations in per capita farm income for a few years, three influences—outlook, income, and possibly investment needs—may well exert some downward pressure on non-real estate credit volume, new farm mortgage volume recorded, and over a longer period of time, on farm mortgage debts outstanding. Moderating, perhaps even offsetting, a possible negative influence from investment necessities will likely be tremendous capital replacement requirements and large invest-

ments associated with sustained progress in technological developments. The fourth factor, the overall capacity of farmers to incur debts, appears as the most certain positive force in the demand for agricultural credit in the near future.

Thus, as lenders assess the probable volume of farm loan demand for next summer's high and for each seasonal peak thereafter, it should be helpful to take into account the direction of influence of each of these four general forces. Moreover, continuous and close observation of developments as they occur should serve as valuable guides to the magnitude of each factor.

LAWRENCE E. KREIDER

Flow of Funds Book Available

The book *Flow of Funds in the United States, 1939-1953* is now available from the Board of Governors of the Federal Reserve System, Washington 25, D. C. The book will be furnished free upon request to officials and economists working on related subject-matter in foreign and domestic governments; to central banks; to the press; and to public libraries and libraries of educational and research institutions. To all others, including member banks, the price of the book will be \$2.75.

The purpose of the flow-of-funds accounting system described in the book is to provide a statistical framework for analyzing economic developments, a framework that encompasses financial as well as nonfinancial processes and thereby facilitates study of the interrelationships among these processes. The structure of the system consists of separate sources and uses of funds statements for the 10 major economic groups or sectors in the national economy, and the statement for each sector embraces all transactions that involve transfers of credit or money. Transactions in existing assets, such as land, securities, and used automobiles are included, as well as transactions in currently produced goods and services. Estimates of the amounts of financial assets owned and debts owed are also given in the book, along with many detailed tables describing the relationship of the flow-of-funds accounts to the national income accounts and to other statistical concepts in general use among economists.

Survey

OF CURRENT CONDITIONS

THE NOVEMBER BUSINESS PICTURE in the Eighth Federal Reserve District was rosy but somber hues were also apparent. The industrial sector of the district economy presented one of the brightest aspects. Output from mines and factories generally increased, but shoe production was sharply curtailed by a strike. In some industries current and expected demand was so large that expansion of capacity was undertaken. In this district large capacity expansions were recently announced for production of steel, chemicals, automobiles, appliances, kraft paper, electric motors and furniture. Railroads also ordered substantial amounts of new equipment. There was a rapid flow of automobile production, but not all was taken from the market and some dealer stocks rose sharply. District department store sales, on the other hand, gained more than seasonally. Wholesale prices of industrial materials increased slightly in November following four months of fairly substantial gains. Prices of farm products, on the contrary, dropped sharply, and farm income continued to fall short of last year's. The rise in business activity was aided by further expansion of bank credit. In order to restrain the rate of credit expansion, the Federal Reserve Banks raised the discount rate again in November.

Production

The district industrial picture of booming production continued in November with the notable exception of shoe output, which was severely reduced by a work stoppage at two major shoe companies. Indicative of the vigorous activity in other lines, steel ingot production at St. Louis reached 103 per cent of rated capacity and one firm resumed pouring ingots for conversion purposes for the first time since March 1953. Automobile assembly continued at a fast pace. Lumber output figures for the first two weeks of the month showed that Southern pine apparently continued to register a more than seasonal performance, unaffected by a weakness of several months' duration in prices of West Coast produced fir. Southern hardwood output declined slightly, apparently reflecting operational adjustments, since orders were said to be running 15 per cent and shipments 9 per cent above output.

Crude oil production again inched upward in early November, after having dropped off slightly in October. Coal production probably increased more in November than usual for that month as demand was stimulated by a shortage of rail cars, to the advantage of producers able to ship by boat or truck.

In October industrial electric power consumption at selected firms in the district again advanced over the previous month and widened its lead to 13 per cent over the like period in 1954. Last year's power consumption was reduced by work stoppages in electrical machinery and model changeover shutdowns in automobile assembly plants. But other industries, where conditions were comparable, increased power use substantially in October over a year earlier.

Construction

Construction contracts awarded in the first half of November in the St. Louis territory of the F. W. Dodge Corporation, which contains most of the Eighth District, were substantially larger than in the same period of 1954. While awards for all major categories of construction increased, most of the gain was in nonresidential building, public works and utilities. Residential construction was only slightly ahead. In the August-October period, the seasonally adjusted rates of total and residential construction contracts awarded in the district were below the average for the year to date. On the other hand, awards for all other than residential construction were larger. For the first ten months, total awards were 16 per cent ahead of the corresponding period last year, residential awards rose 27 per cent and all other awards gained 9 per cent.

Consumer Spending

Consumer spending, which has been one of the main factors behind the current upswing of business activity, continued at a high rate in November. District department store sales in the first three weeks of November averaged 10 per cent above the level in the corresponding weeks of 1954. They also gained more than the usual amount from October, continuing the better than seasonal increase in that month. Sales of

homefurnishings continued to lead the advance this year over year-earlier levels.

However, early reports on new automobile sales in October and November were not so favorable. October sales declined more than seasonally from the high level reached in September, reflecting the end of the 1955 model automobile output. In November production was at a faster pace than sales and as a result stocks of most dealers rose sharply. While production following model changeover is usually stepped up so as to supply dealers with stocks, output this year has been exceptionally large. And the rapid rise in dealer inventories was from a November 1 level substantially larger than a year earlier, although less than from April to September. Near the close of November a few dealers still had some 1955 model cars on hand.

Labor Markets

The district's principal labor markets reflected the rising level of business activity. Unemployment insurance claims in Evansville and Memphis dropped more in the four weeks ending November 19 than in the corresponding period of 1954. In St. Louis little change was recorded in either the current or year-ago period.

A work stoppage began in early November involving 26,000 workers at two major shoe firms whose plants are mostly located in the Eighth District. Construction activity at the Jacksonville Air Base near Little Rock was interrupted by a strike of about 2,000 workers which began November 17.

Employment in the Louisville, Memphis and Evansville areas advanced from September to October. The increase in each case reflected termination of work stoppages in effect at mid-September, recalls from model changeover shut-downs at automobile plants and other increases which more than offset seasonal declines. In Little Rock employment was virtually unchanged from September to October.

Agriculture

District farm production for the current marketing season, as measured by recent estimates of the United States Department of Agriculture, was higher than formerly indicated. Total production of crops was estimated to be up 15 to 20 per cent over last year. Cotton output in district states climbed to a level approximately 18 per cent above last year, notwithstanding a reduction of 14 per cent in acreage. District outturn of livestock and livestock products for the current season rose moderately over last year primarily as a result of large increases in hog and broiler production.

Throughout November, district pastures compared very favorably with last year. However, in many areas the new wheat crop had less than optimum moisture.

Prices received for district agricultural products dropped a sharp 3 per cent during the four weeks ending November 18 to a level nearly 10 per cent below a year ago. Cattle and hog prices fell 8 and 17 per cent, respectively, while prices received for other major district livestock products and field crops were stable or higher.

Despite increases in production, sharp declines in prices received resulted in an 8 per cent drop in cash farm receipts in the district for the first nine months of 1955 below the comparable months of 1954. Receipts from the large cotton crop, not reflected in the data for the first nine months, may be larger than a year ago but will be partly offset by lower receipts from other products, particularly for hogs and livestock feed produced.

Financial

From mid-October to mid-November the demand for bank credit at district banks appeared to strengthen. Total loans at weekly reporting banks rose \$33 million, or 2 per cent. The demand for credit by businessmen was especially heavy, a development which was not entirely reflected in an expansion in the amount of loans outstanding. For one thing, since many banks were under considerable pressure for reserve funds and other cash assets, loan applications were reportedly screened somewhat more closely than if the banks had ample cash assets. To ease the pressure, some banks also sold paper; reports from a few banks indicate that the total amount of such sales in the period by weekly reporting banks exceeded \$30 million. Then, too, a large, indeterminate portion of demand for loans at district banks was accommodated by the local banks having another bank participate in the advance. In addition to the vigorous business loan demand, "other", largely consumer, loans rose and advances to finance real estate worked up.

During the first three weeks of November most interest rates rose again, after remaining fairly constant or declining somewhat during September and October. The sharpest rise in rates was in the short-term area. Yields on Treasury bills rose from less than 2 per cent in early November to nearly 2½ per cent late in the month. Both bankers' acceptances and commercial paper were marked up another ⅛ of 1 per cent. Discount rates at the Federal Reserve Banks were increased ¼ of 1 per cent and now stand at 2½ per cent. Capital market yields also worked up, but the rise was much more moderate than for shorter-term issues.

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FEDERAL RESERVE BANK OF ST. LOUIS

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*See, also, *District Business Statistics* and *Survey of Current Business Conditions*

The District Record

Industry

VARIOUS INDICATORS OF INDUSTRIAL ACTIVITY

Industrial Use of Electric Power (thousands of KWH per working day, selected industrial firms in 6 district cities)
 Steel Ingot Rate, St. Louis area (operating rate, per cent of capacity)
 Coal Production Index—8th Dist. (Seasonally adjusted, 1947-49=100)
 Crude Oil Production—8th Dist. (Daily average in thousands of bbls.)
 Freight Interchanges at RRs—St. Louis. (Thousands of cars—25 railroads—Terminal R. R. Assn.)
 Livestock Slaughter—St. Louis area. (Thousands of head—weekly average)
 Lumber Production—S. Pine (Average weekly production—thousands of bd. ft.)
 Lumber Production—S. Hardwoods. (Operating rate, per cent of capacity)

Oct. 1955	Oct. 1955* compared with Sept. 1955	Oct. 1954
14,893	+ 6%	+13%
97	-0-	+29
85 p	+ 5	+ 4
377.1	- 3	+16
114.4	+ 7	+16
127.4	+22	+10
207.6	+ 4	+11
103	+ 5	+10

* Percentage change figures for the steel ingot rate, Southern hardwood rate, and the coal production index, show the relative per cent change in production, not the drop in index points or in percents of capacity.
 p Preliminary.

Banking

BANK DEBITS¹

	Oct. 1955 (In millions)	Oct. 1955 compared with Sept. 1955	Oct. 1954
Six Largest Centers:			
East St. Louis—National Stock Yards, Ill.	\$ 133.5	- 3%	-0-
Evansville, Ind.	161.3	-0-	+16
Little Rock, Ark.	191.6	+ 3	+11
Louisville, Ky.	844.5	+ 4	+18
Memphis, Tenn.	921.5	+23	+ 4
St. Louis, Mo.	2,288.9	+ 2	+17
Total—Six Largest Centers	\$4,541.3	+ 6%	+13%

Other Reporting Centers:

Alton, Ill.	\$ 37.4	- 8%	+12%
Cape Girardeau, Mo.	15.4	- 1	+ 2
El Dorado, Ark.	29.9	- 3	+ 9
Fort Smith, Ark.	54.5	+ 1	+ 6
Greenville, Miss.	38.3	+17	+ 5
Hannibal, Mo.	10.3	- 1	+10
Helena, Ark.	15.4	+29	-11
Jackson, Tenn.	31.4	+20	+ 6
Jefferson City, Mo.	72.8	- 5	+14
Owensboro, Ky.	49.7	+ 7	+18
Paducah, Ky.	25.8	- 1	-16
Pine Bluff, Ark.	48.6	+ 4	-14
Quincy, Ill.	42.2	+12	+12
Sedalia, Mo.	14.7	- 7	+13
Springfield, Mo.	86.1	-0-	+20
Texarkana, Ark.	21.3	+ 3	+13
Total—Other Centers	\$ 593.8	+ 3%	+ 7%
Total—22 Centers	\$5,135.1	+ 6%	+13%

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

	1955	1954
Oct.	152.8	156.2
Sept.	156.2	135.8

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

Agriculture

CASH FARM INCOME

	Sept. 1955	Sept. '55 from Sept. '54-R	1955 compared with 1954-R
(In thousands of dollars)			
Arkansas	\$ 66,375	-10%	-2% + 4%
Illinois	165,515	-10	-9 -10
Indiana	102,361	-7	-10 -10
Kentucky	27,433	-7	-9 -14
Mississippi	81,667	-3	-6 -20
Missouri	105,202	-14	-8 -7
Tennessee	40,621	-25	-12 -14
7 States	589,174	-10	-9 -10
8th District	296,204	-11	-8 -9

Source: State data from USDA preliminary estimates unless otherwise indicated.
 R—Revised years 1953-1954.

Construction

INDEX OF CONSTRUCTION CONTRACTS AWARDED EIGHTH FEDERAL RESERVE DISTRICT* (1947-1949=100)

	Sept. 1955	Aug. 1955	Sept. 1954
Unadjusted			
Total	231.4 p	236.0	216.7
Residential	250.1 p	252.0	263.4
All Other	222.7 p	228.5	195.0
Seasonally adjusted			
Total	205.9 p	193.5	192.8
Residential	221.3 p	210.0	233.1
All Other	198.8 p	185.8	174.1

* Based on three-month moving average (centered on mid-month) of value of awards, as reported by F. W. Dodge Corporation.

p Preliminary

ASSETS AND LIABILITIES EIGHTH DISTRICT MEMBER BANKS

	Weekly Reporting Banks	All Member Banks
(In Millions of Dollars)	Change from Oct. 19 1955	Change from Sept. 28 1955
Assets	Nov. 23, 1955	Oct. 26 1955
Loans ¹	\$1,566	\$2,469
Business and Agricultural	808	
Security	51	
Real Estate	282	
Other (largely consumer)	445	
U. S. Government Securities	975	1,968
Other Securities	241	495
Loans to Banks	20	
Cash Assets	888	1,424
Other Assets	46	68
Total Assets	\$3,736	\$6,424
Liabilities and Capital		
Demand Deposits of Banks	\$ 674	\$ 723
Other Demand Deposits	2,161	3,939
Time Deposits	561	1,216
Borrowings and Other Liabilities	73	83
Total Capital Accounts	267	463
Total Liabilities and Capital	\$3,736	\$6,424

¹ For weekly reporting banks, loans are adjusted to exclude loans to banks; the total is reported net; breakdowns are reported gross. For all member banks loans are reported net and include loans to banks; breakdown of these loans is not available.

Trade

DEPARTMENT STORES

	Net Sales	Stocks on Hand	Percentage of Accounts Sales and Notes Receivable Outstanding Oct. 1, '55, collected during Oct.
	Oct. 1955 compared with Sept., '55	Oct. 31, '55 compared with Oct. 31, '54	Oct. 1 to Oct. 1, 1955
8th F.R. District Total	+16%	+9%	+7%
Fort Smith Area, Ark. ¹	+13	+4	+11
Little Rock Area, Ark.	+15	+2	+1
Quincy, Ill.	+9	-2	+2
Evansville Area, Ind.	+8	+3	+5
Louisville Area, Ky., Ind.	+21	+11	+6
Paducah, Ky.	+20	-8	-7
St. Louis Area, Mo., Ill.	+14	+10	+8
Springfield Area, Mo.	+8	+24	+37
Memphis Area, Tenn.	+27	+9	+5
All Other Cities ²	+19	+11	+8

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.

INDEXES OF SALES AND STOCKS—8TH DISTRICT

	Oct. 1955	Sept. 1955	Aug. 1955	Oct. 1954
Sales (daily average), unadjusted ³	135	122	109	123
Sales (daily average), seasonally adjusted ³	122	119	120	112
Stocks, unadjusted ⁴	N.A.	133	126	127
Stocks, seasonally adjusted ⁴	N.A.	123	126	113

³ Daily average 1947-49=100

⁴ End of Month average 1947-49=100

Trading days: Oct., 1955—26; Sept. 1955—25; Oct., 1954—26.

OUTSTANDING ORDERS of reporting stores at the end of October, 1955, were 23 per cent larger than on the corresponding date a year ago.

N.A. Not available.

RETAIL FURNITURE STORES

	Net Sales	Inventories
	Oct. 1955 compared with Sept., '55	Oct. 1955 compared with Sept., '55
8th Dist. Total ¹	+5%	-1%
St. Louis Area	+1	+2
Louisville Area	+5	+3
Memphis Area	+13	+15
Little Rock Area	+11	+27
Springfield Area	+12	-0-

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

¹ In addition to following cities, 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.

PERCENTAGE DISTRIBUTION OF FURNITURE SALES

	Oct., '55	Sept., '55	Oct., '54
Cash Sales	14%	14%	15%
Credit Sales	86	86	85
Total Sales	100%	100%	100%