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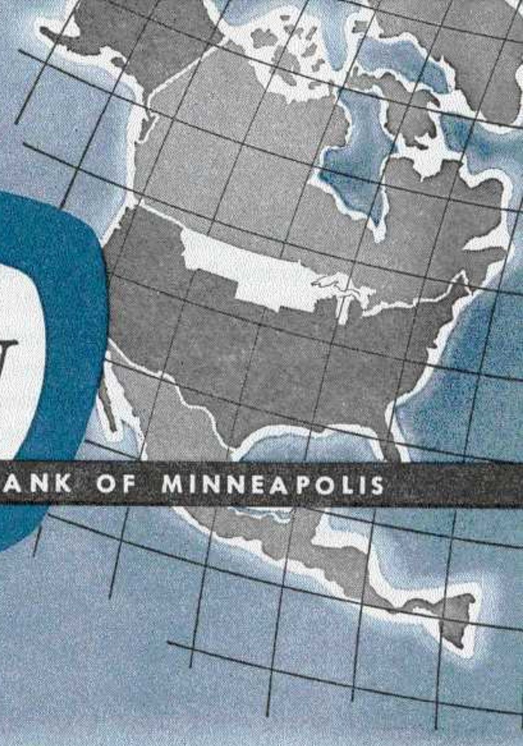


Monthly Review
OF THE FEDERAL RESERVE BANK OF MINNEAPOLIS

Economy exhibits new strength

The economy of the Ninth district continued to forge ahead in recent weeks, sparked by exceptionally favorable crops, sharply rising construction activity, and the return to a more normal workweek. Employment in nonagricultural industries has exhibited a modest increase in recent weeks with the recession low point apparently centered in the third quarter this year. Increased employment is especially evident among construction workers in highway and heavy engineering projects, in residential building, and among the special building trades involving a large share of subcontract work. Employment agencies are currently reporting a trend towards 'recalls' of previously laid-off workers. Nevertheless, the increase in employment has done little more than offset normal additions to the labor force; hence, district unemployment still remains at a relatively high figure. Depressed conditions in the important iron ore and copper mining areas of the district continue to contribute significantly to unemployment.

Near record cash farm incomes plus a noticeable increase in average weekly earnings of manufacturing wage earners (and probably of other worker groups as well) suggest that district personal income may currently have reached a new high peak. Improvement in department store sales and the sharp increase in check volume in recent weeks are indications of these favorable incomes and they point up the probability of a large volume of business during the balance of 1958.

The importance of current farm prosperity on the district's economy trends should not be minimized. Farm dollars are reflected in much of this district's business and industry. Much of this record farm output must be processed in some way; storage is frequently involved, and, of course, the raw and finished commodities must be financed through the transportation, processing, wholesaling and retailing channels. Farm machinery sales are stimulated. Furthermore, local service people and industries are sensitive to farm prosperity.

Still another indication of developing activity in the district's economy is the current expansion of loans and discounts of member banks to a new record amount during September. Preliminary data suggest this trend has continued in October. Bank deposits are also at peak levels.

Nationally, the economic scene is one of continuing recovery. Industrial production is increasing, new orders have moved ahead of sales, inventory liquidation may be near an end, new construction is close to a record, employment is up slightly, and personal income is at a new high.

So far, fortunately, there is little evidence of price inflation. In fact, prices as a whole are currently quite stable. Neither are prices likely to advance significantly in the near future or as long as unemployment as a percent of the labor force remains relatively high and as long as the nation's productive capacity is not fully utilized. The country's Gross National Product, estimated at $440 billion in the third quarter this year, is still some $2 billion below the same period a year ago.

The following selected topics describe particular aspects of the district's current economic scene:

EMPLOYMENT IMPROVING

The economic recovery in the Ninth district has halted the downward trend in employment. Nonagricultural employment, on a seasonally adjusted basis, reached the low point of the recession during the third quarter when it was 2.4 percent below a year ago. Since the latter part of the third quarter, there has been improvement; layoffs have given way to a recalling of workers.

The recession in the district, with the exception of the mining areas, has been less severe than in the nation as is indicated by employment figures. For instance, district nonagricultural employment in the third quarter was down 2.4 percent from a year ago, while in the nation for July and August it was down 3.8 percent. The loss of jobs has been centered largely in manufacturing, especially of durable goods, but also in metals mining and transportation. Due to the relatively small percent of the district labor force employed in these fields, the decline in district employment was moderate.

In the current economic recovery period, the improvement in district employment as a whole has been at a slower rate than in the nation. District employment in the manufacture of durable goods has increased while in mining and in transportation (which is associated with mining) it has remained at a low level. For instance, mining employment during the third quarter was down over 20 percent from last year. In spite of the more rapid national improvement, unemployment in this district, with the exception of the mining regions, continues below the national average.

The volume of construction undertaken in this district has risen sharply, although employment in this field toward the end of the third quarter was still below the year-ago level. The smaller number of construction workers employed is traced to the decline in nonresidential building, especially industrial plants, but also in commercial building and some types of public building.

Residential builders, however, are now experiencing the first real surge in activity since 1955. The number of new dwellings authorized by permit since last March has ranged from 23 percent to 41 percent above the number authorized in the corresponding months of a year ago. Employment in the special building trades, which involves largely subcontract work, has been substantially ahead of last year. In some areas of Montana, a shortage of carpenters, plasterers and painters has developed.

Highway and heavy engineering construction has risen to a level substantially above a year ago. The large amount of contracts let in recent months suggests a further rise in activity and employment until inclement weather arrives.

FARM LAND VALUES CONTINUE UPWARD TREND

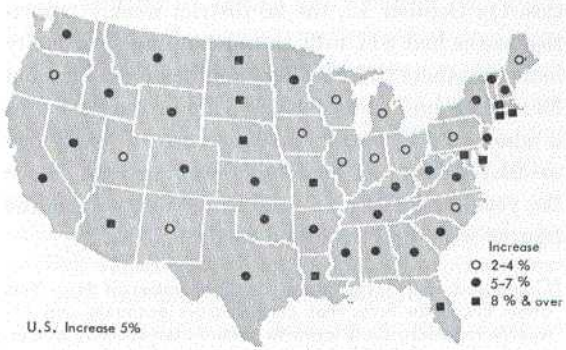
The price of farm land in the Ninth district continued to rise during the four-month period ending July 1, 1958, according to the latest U. S. Department of Agriculture estimates. Land values increased in all of the four full district states during the recent four-month period. The increases were as follows: 3 percent in Montana and South Dakota, 2 percent in North Dakota and 1 percent in Minnesota. The recent increase in land values is a continuation of a general rising trend which has persisted since 1954.

During the year ending July 1, 1958 land values increased 5 percent in the United States. Large increases were most general in the northern plains where excellent crop and income prospects added a note of optimism to the farm real estate market in the first half of 1958.

Purchases of land for farm enlargement accounted for 40 percent of all farm land transfers in the United States during this last year. The effect of farm enlargement was even a stronger factor in the spring and winter wheat producing areas where nearly two-thirds of the farm land purchases were for farm enlargement.

Other major underlying forces influencing the rising land market are: demand for land to hold as an inflation hedge, government programs for agriculture which increase land values, and demand for land for nonfarm uses.

Changes in dollar value of farmland*
(percent change from July 1957 to July 1958)



*Based on index numbers of value per acre, including improvements.

DEPARTMENT STORE SALES

Beginning with the second quarter of this year, district department store sales began to fall below comparable year ago volumes. Although sales were still lower than last year, there was an improvement during July and August which was followed by another slump in September. On the basis of preliminary data, October sales for the first time since last March may exceed the year-ago volume.

Seasonally adjusted monthly indexes of district department store sales for July and August were 129 percent and 137 percent, respectively, of the 1947-49 base period. For September, the index again dipped to 126 percent which was near the May and June level. During the first three weeks of October, sales in the four large district cities were substantially above last year.

Larger household furnishings and major appliance sales as well as soft good sales accounted for the improvement in sales during the summer months. The dip in September is traced to a general decline in sales. One factor in this drop may be the exceptionally mild temperatures during the month in this region which tended to postpone the buying of fall and winter wearing apparel.

For the remainder of this year, the outlook for department store sales is favorable. Farm income is up; cash receipts from farm marketings in this district for the first eight months of this year were

8 percent above last year. In many industrial firms, average weekly hours again have been lengthened to a normal workweek. Average weekly earnings of production workers have been rising slowly. Furthermore, consumer spending has been low in relation to consumer income, indicating that the buying potential is strong.

HOG PRODUCTION INCREASING

Recent U. S. Department of Agriculture estimates indicate that hog production started upward this fall and is expected to continue upward in 1959. Hog prices have been moving upward since early 1956; the average hog price for 1958 is expected to approach $20 per 100 pounds. And during this period of rising hog prices, declining corn prices have lowered feed costs.

The price relationship of corn and hogs in February 1958 on a U. S. farm price basis was such that 20.6 bushels of corn were equal in value to 100 pounds of pork. This was the first time that the corn-hog ratio exceeded 20 since 1909, the year that records were started. The corn-hog ratio has been well above the long-term average of 12.5 to 13 for a number of months, setting the stage for an expansion in hog production.

In June producers in the nine* major hog producing states planned to have 13 percent more sows farrow for the fall pig crop this year than last, according to the USDA. The September report from hog producers indicated that these plans had materialized and were even exceeded.

In September hog producers in the nine states indicated intentions to increase the early spring pig crop 20 percent according to the USDA. The planned increase in the early spring pig crop may partially reflect a further shift to early farrowings, but the sharp increase in plans for early farrowings is most apt to be a response to the favorable hog-feed price relationship and a further increase in hog production.

*The nine states include Ohio, Indiana, Illinois, Wisconsin, Minnesota, Iowa, South Dakota, Nebraska and Kansas.

DISCOUNT RATE SET AT 2½%

Effective October 24, the Federal Reserve Bank of Minneapolis and four other Reserve banks increased the rate they charge on loans to member banks from 2 percent to 2½ percent. This latest change was the second increase in the rate from the 1¾ percent figure established during the early 1958 low point in economic activity. Member bank discounting at the Minneapolis Federal Reserve Bank, while much below the high levels reached during 1955-57, has recently increased quite substantially. Daily average borrowings by Ninth district member banks climbed to $10 million during the last half of September. In contrast, borrowings of less than $1 million during the first half of April established the low for the year to date.

MARGIN REQUIREMENTS RAISED

Effective October 16, the Federal Reserve Board raised stock market margin requirements to 90 percent, the highest since the 100 percent requirements of 1946-47. As a result of this latest change, no more than 10 percent of the market value of a security may be borrowed for the purpose of buying or carrying a security. Earlier in the year, margins were increased from 50 to 70 percent.

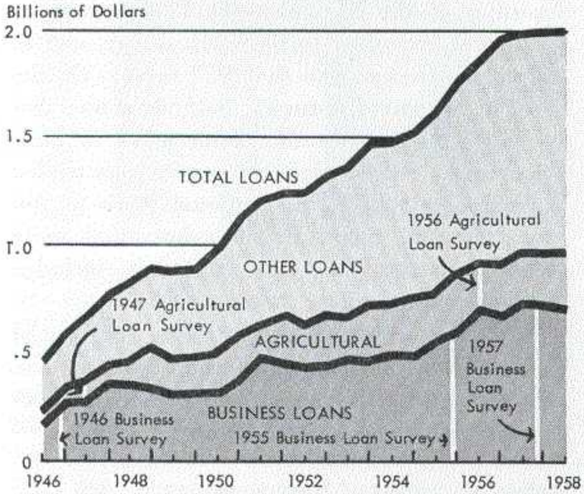
According to the June 23 call report, district member banks loaned about $15 million to borrowers other than security dealers or brokers for the purpose of purchasing or carrying securities. On October 15, the 20 district weekly reporting banks had $11 million outstanding in security loans to others than brokers and dealers—up from $8 million on October 16, 1957. For the nation as a whole, stock market customer credit* expanded to $4.3 billion in September—11 percent above the year-earlier amount and a maximum since the figures were first recorded in the 1930's.

*Composed of (1) customers' debit balances of New York Stock Exchange firms that carry margin accounts and (2) weekly reporting bank loans to others than security dealers and brokers. Not included are balances of stock exchange firms and loans of Chicago and New York banks which are secured by U. S. government obligations.

Bank loans to business

Some indication of what happened to the flow of member bank credit to various industries during the 1946-57 period was revealed by Federal Reserve surveys of member bank loans to business. On three occasions since the end of World War II, the Federal Reserve surveyed a representative sample of all member banks in order to get a detailed picture of their business loan portfolios.

Chart I—Loans at district member banks, June and December call reports, 1946-1957



These surveys were conducted on November 20, 1946, October 5, 1955, and October 16, 1957. Twice during the postwar period, surveys of agricultural loan holdings of member banks also were conducted. The present article refers to both the agricultural and the business loan surveys, but its major emphasis is on the most recent business loan survey. Particular stress is given the relationships between amounts borrowed by various kinds of businesses and other characteristics of the borrower, the lender, and the loan itself. The article will take up in turn the borrower characteristics of location, assets size, value of output, and corporate status; the deposits size of the lending bank; and the maturity of the loan. In each case, however, the analysis focuses on the business of the borrower.

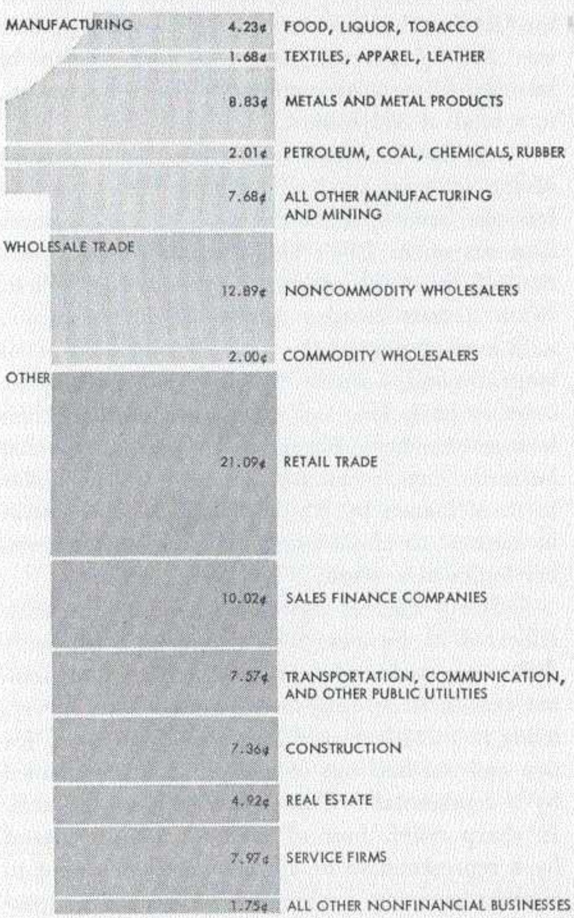
Location of borrower

First, what differences exist between member bank lending to business in the Ninth district and the nation as a whole? The total amount of business loans at Ninth district member banks was estimated at $730 million according to the October 16, 1957 Business Loan Survey. This represented a 21 percent rise over the comparable estimate made by the Federal Reserve on the basis of the October 5, 1955 survey. Significantly greater was the 32 percent survey-to-survey jump in business loans at all member banks in the nation, to a total of $41 billion.

Ninth district banks loaned less than 2 percent of the national total of member bank loans to business according to the most recent business loan survey in 1957. This seemingly small fraction of the total results from two facts. First, Ninth district member banks, in the aggregate, hold a small part of the national aggregate of all loans. Second, a smaller fraction of Ninth district member bank loan dollars goes to business than is true elsewhere. Recent call reports show that business loans accounted for roughly one dollar in three loaned by Ninth district member banks in contrast to about every other dollar for member banks as a whole.

A Ninth district representative member bank allocated its business loan dollar in a markedly different way than did a representative of all member banks. According to the most recent survey, loans to manufacturing businesses accounted for two and one-half out of every ten dollars loaned by a representative Ninth district member bank. In sharp relief, four of each ten dollars loaned by a representative of all member banks went to a manufacturing business. With regard to particular lines of manufacture, even greater differences existed between district and all member banks in the nation as a whole. As an example, loans to firms in the petroleum, coal, chemicals and rubber line accounted for but 2 percent of district member bank business loans—much below the comparable 9 percent figure for all member banks. A second example is that metals and metal products manufacturers borrowed about 9 percent of the total amount of district member bank loans to business while firms in this line borrowed nearly 14 percent of the national total.

Chart 2—Allocation of district business loan dollar by type of business, October 16, 1957



Wholesalers and retailers, on the average, borrowed almost three and one-half dollars of every ten loaned by Ninth district member banks on October 16, 1957. These firms borrowed but two dollars in ten loaned to business by all member banks. Other firms, including sales finance companies, public utilities, construction, real estate and service concerns got about four dollars in ten loaned to business by member banks both in the district and in the nation as a whole.

Survey-to-survey comparisons reveal that the fraction of the total amount of business loans made by Ninth district banks to manufacturers has declined successively from nearly 40 percent according to the November 20, 1946 survey, to 25 percent according to the 1955 survey, and to 24 percent according to the 1957 survey. On the other hand, survey-to-survey analysis shows that the Ninth district member bank loans to businesses in the construction and service lines tended to expand relative to the national totals as did loans to retail firms. Retailers borrowed more dollars than any other line of business included in the two most recent surveys.

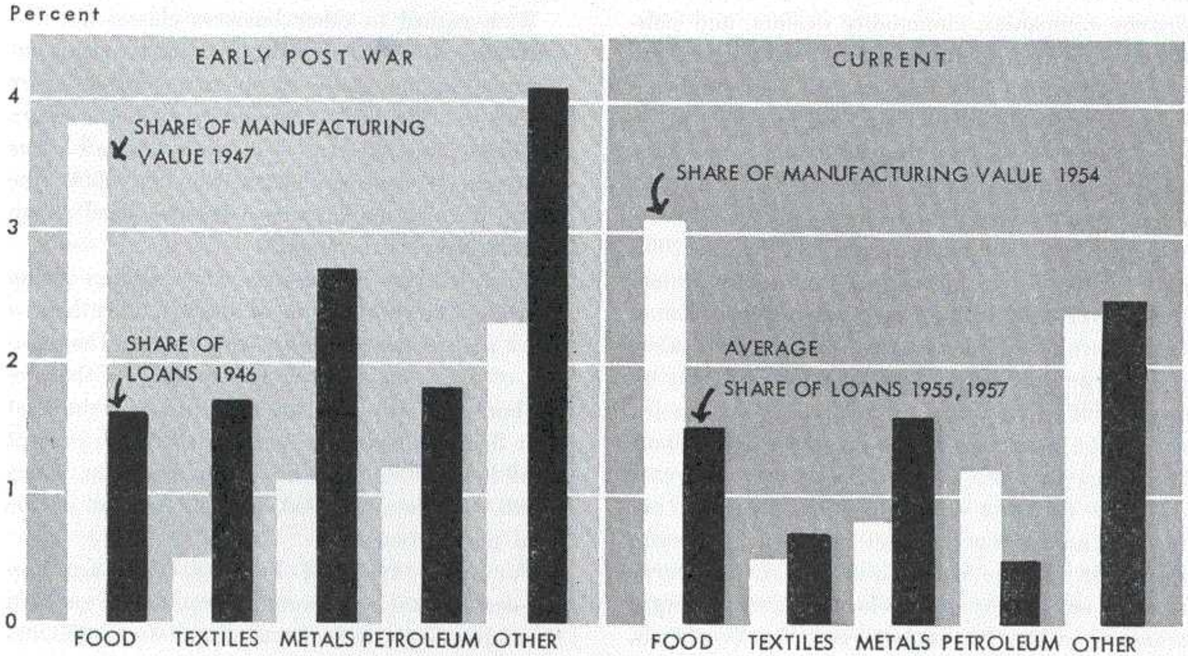
To sum up, relatively more dollars were loaned to trade firms and relatively fewer dollars were loaned to manufacturers by district member banks than by all member banks.

Value of output of borrower

During the course of the present century, businesses in the Ninth district have contributed a declining share of the total national value of manufacturing output. Correspondingly, the business loans of Ninth district member banks have made up a declining fraction of all member bank loans to business. Exactly the converse relation appears to exist with regard to agricultural output and member bank loans to farmers.

Data provided by the postwar business loan surveys and the 1947 and 1954 census of manufacturers permit comparisons of the Ninth district's share of particular industry totals of output and loans. Comparison of the district share of

Chart 3—District member bank loans to manufacturers and district manufacturing outputs as percents of national totals



Census of Manufactures data for the 4 full states in the district and the nation as a whole were used to find the percent of the total value added contributed by these states. Federal Reserve business loan survey data for the district and the nation was used to find the district share of the total amount of loans made to firms in each industry group. Averages of the 1955 and 1957 figures were used to represent the district's 'current' share of all loans.

manufacturing value added in 1947 with the district share of member bank loans to manufacturing businesses in 1946 shows, for example, that food manufacturers in the four full states of the district contributed almost 4 percent of the national total of value added by all firms in this line. But less than 2 percent of all member bank loans to firms in the food industry were made by Ninth district banks. A comparison of the district's share of value added in a particular line of manufacture and its share of loans to businesses in that line is shown by Chart 3 above.

Size of borrower

A number of interesting points can be made about the distribution of loans to firms of various sizes in each industry group. Of the total amount of Ninth district member bank business loans on October 16, 1957, 8 percent were made to businesses with assets valued at less than $50,000. Two years earlier these 'small' firms had borrowed 10 percent of the district total. A 1955-survey-to-1957-survey comparison indicates that only food manufacturers, commodity dealers and public utilities in this size class borrowed relatively more of their respective industry totals in 1957 than in 1955.

At the other extreme, 'giant' firms with assets worth over $100 million borrowed 7 percent of the district member bank business loan total according to the most recent survey. This figure was down from 9 percent two years earlier. Giant firms did borrow a large fraction of total borrowings in a number of lines. Food, liquor and tobacco manufacturers in this size class obtained nearly one dollar of every four loaned to firms in this line by district member banks. Giant metals and metal products manufacturers, sales finance companies, commodity dealers, and public utilities also borrowed significant proportions of the respective district total of loans to firms in these industries. However, the fact should be noted that sales finance companies and commodity dealers frequently have large assets because of almost equally large borrowings.

Survey-to-survey analysis of the 1955 and 1957 data for the district shows that commodity dealers in the over $100 million asset size class increased their share of total loans to all commodity dealers from 5 percent to 38 percent. However, day-to-day variations in loans to commodity dealers far exceed the variations in the average of such loans from year to year. Thus, the very sharp increase in loans to large commodity dealers need not indicate a significant growth in their average size and their average borrowings but simply shows that big commodity dealers borrowed much larger amounts on October 16 last year than October 5, 1955. This possibility illustrates one of the reasons why a survey may not represent the 'average' experience of a particular period.

Another, perhaps more significant, change between 1955 and 1957 survey data is that each size class of metals firms valued at less than $5 million got a smaller share of funds loaned to metals firms while each class of greater size got a larger share. Similarly, textiles, apparel and tobacco manufacturers (principally apparel manufacturers in the Ninth district) with assets of less than $1 million obtained a smaller share of total loans while each larger size class obtained a larger share. A striking illustration in the growth of these borrowers is the fact that no loans at all were made to firms with assets over $1 million in 1955, but loans were made to firms in the $5 to $25 million class in 1957. No uniform shifting of loan volume was apparent in loans to other classes of manufacturing business. But for all manufacturers combined, each size category of less than $5 million received a smaller share of the total loaned to manufacturers by district member banks.

With regard to other business classes the district survey revealed only one fairly clear cut increase in the share of loans made to larger businesses. The only increase was in the share of loans made to each size group of 'all other nonfinancial' concerns larger than $250,000; the share of loans made to each smaller sized group in this category declined.

Though firms in the over $100 million group borrowed large *amounts* of dollars, they held a small part of the total *number* of loans. The number of loans, in general, fell sharply as the size of borrower rose. Firms with assets valued at over $100 million obtained less than one percent of all loans while firms in the smallest class, assets worth less than $50,000, got 46 percent of the total number made.

For many types of business, the maximum number of total loans went to firms in the smallest class. But firms with assets valued from $50,000 to $250,000 got the greatest number of loans in manufacturing and wholesaling as well as in other lines such as construction and real estate. Sales finance companies with assets valued at $250,000 to $1 million received the largest number of loans to firms in this line of business.

The smallest firms, those with assets appraised at under $50,000, in nearly every kind of business as well as in the aggregate, got relatively fewer loans, according to the 1957 survey, than they did according to the earlier survey in 1955. But all other size groups, especially the next larger group, got relatively more loans.

Corporate status of borrower

A fundamental structural change in the economy reflected in the composition of business loans is the relative growth of corporate enterprise. Nearly three of every four dollars loaned by district member banks went to an incorporated business, according to the 1957 Business Loan Survey. Total loans to corporations on October

16, 1957 increased 25 percent over the comparable 1955 survey estimate, far greater than the 10 percent rise in loans to unincorporated business.

Unincorporated firms borrowed more member bank funds than corporations in only two categories of business endeavor. These were service and 'all other nonfinancial' businesses, the latter including such businesses as insurance agents, agricultural services, forestry and fisheries firms.

When the number of loans is considered, unincorporated borrowers got about three loans to every one made to a corporate borrower at district member banks—just the reverse of the dollar distribution of business loans.

Size of bank

The next characteristic considered is the deposits size of the lending bank. Chart 4A shows that most member banks in the Ninth district are small banks having deposits of less than $10 million. But in contrast, the chart shows that most of the business loans made by commercial banks in the Ninth district were made by larger banks. In fact, the three largest banks in the district, each with deposits of over $250 million, made over half of the district total amount of member bank business loans. The business loans of these banks are represented in Chart 4B as the bottom column.

The 270 banks with deposits of $2 million to $10 million made a greater number of loans than did any other size group. The 46 banks in the class $10 million to $20 million of deposits made less than half as many loans but were ranked second in the number of loans made according to the 1957 survey. The three largest banks made almost as many.

With one exception, the three largest banks loaned by far the greatest amount to businesses in each of the categories included in the study. The exception being that banks in the $2 million to $10 million class loaned a larger amount to service firms than any other class of banks. Banks in the intermediate range, the four classes between $2 million and $100 million, extended about the same amount of total credit to the various industries. The smallest banks, with deposits of less than $2 million, were the smallest lenders to businesses both in total business loans and in loans to particular classes of businesses.

The composition of the loan portfolios pictured

Chart 4A—Number of banks by bank size

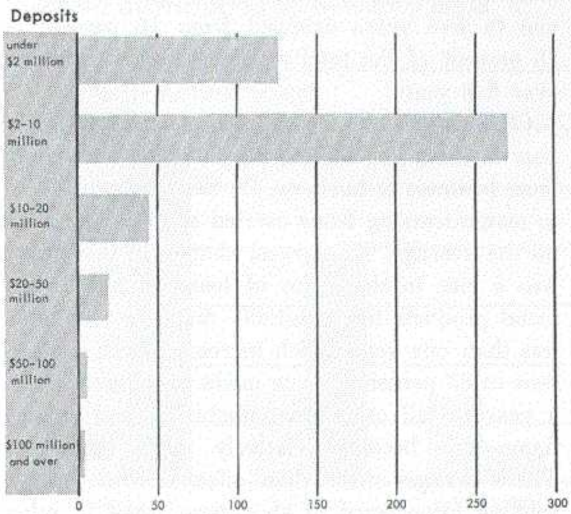


Chart 4B—Amount of loans by bank size

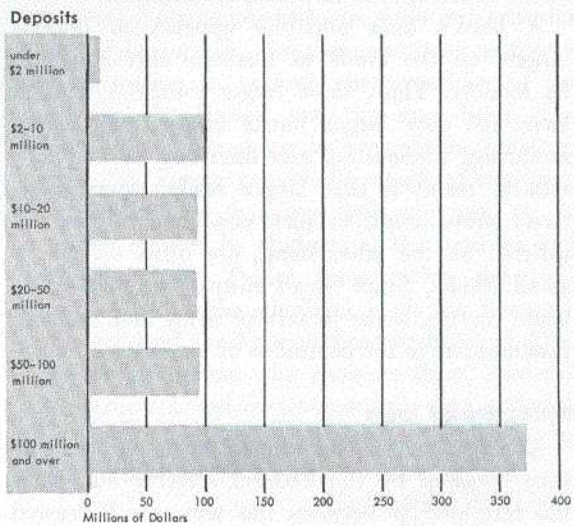
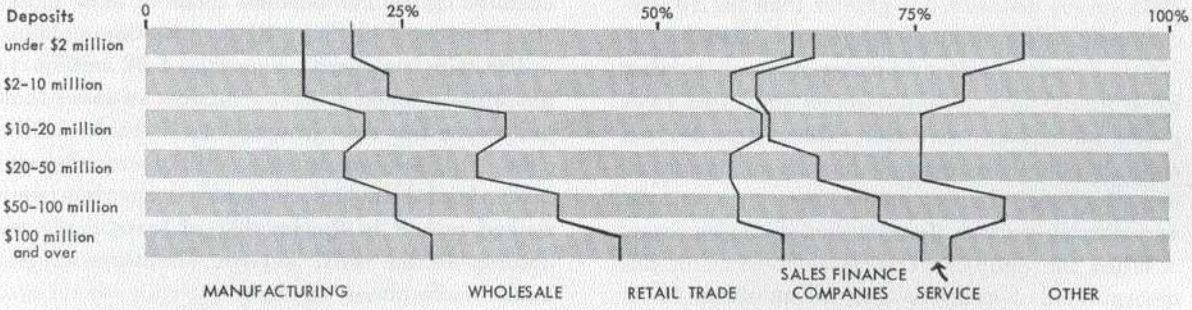


Chart 5—Percent distribution of district business loans to industry groups, by size of bank



in the accompanying chart exhibits many marked variations among banks of different sizes. In general, portfolios tended to include more loans to manufacturers, wholesalers, and sales finance companies as the size of the bank increased with the exception that loans to food manufacturers tended to be of about equal weight in the portfolios of each size bank group.

On the other hand, the proportion of loans made to retailers and service firms varied inversely with the size of the banks. To illustrate, the 43 percent of total business loans made to retail firms by banks with deposits of less than $2 million was much more, relatively, than the 16 percent these firms obtained from the largest banks with deposits of over $100 million.

A bank's loan portfolio appears to depend largely on the kinds of business carried on in its locality. Thus, since larger localities tend to have not only larger banks but greater manufacturing, wholesaling and financing activity, the natural result is that larger banks extend relatively more credit to such concerns. Smaller localities, on the other hand, are often served by small banks. Since small towns are principally trade centers, loans to service firms and retailers predominate in the portfolios of small town banks.

Maturity of loan

Another facet of the district business loan picture revealed by the Federal Reserve survey is the relationship between the amounts borrowed by various businesses and the characteristics of the loan itself.

During the period 1955 to 1957, the liquidity of commercial banks was reduced because of the very large growth in loans relative to assets. The November 1957 *Monthly Review* pointed out how banks in the district had shortened the maturity structure of their government security holdings in order to gain liquidity. But banks on the average also offset part of this loss in liquidity by reducing the average maturity of their loans. The *amount* of loans made with due-within-one-year terms increased from 68 percent on October 5, 1955 to 70 percent of all business loans on October 16, 1957. But conversely, the *number* of these loans declined. The *amount* of loans maturing in one to five years dropped from 16 percent to 15 percent of the total as did loans maturing in over five years.

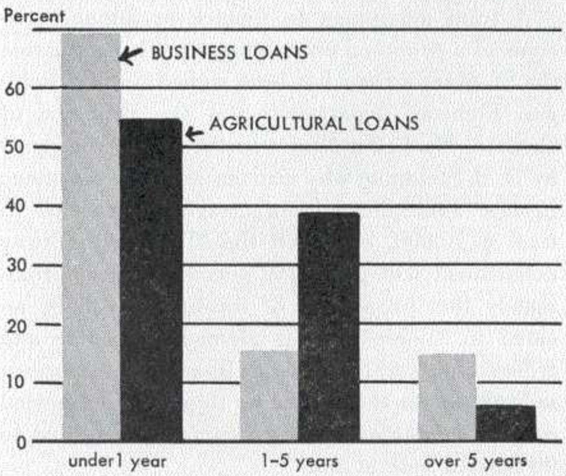
Changes in maturity of loans classified by business of borrower showed considerable fluctuation from business to business. On the one hand, loans to manufacturing firms carried shorter maturities on the average. The largest change in this group was a rise in the share of loans to metals and metal products firms initially made to mature in less than one year which increased from 69 percent to 83 percent. Loans made to mature within a year to 'all other' manufacturing and mining firms also became relatively more important. These changes more than offset declines in the relative importance of short-term loans to other classes of manufacturing firms.

On the other hand, contrary to the average experience, wholesale firms obtained credit on longer terms. This was especially true of the non-commodity wholesalers who lengthened their bank debt so that almost 11 percent initially carried maturities greater than five years. In 1955 only 5 percent of their bank debt had carried such long terms.

Other businesses experienced a shortening of their bank held debt, with the notable exceptions of construction and service firms. Firms in the retail trade, for example, borrowed 68 percent of their dollars on due-within-one-year terms in 1955; but 71 percent was the 1957 like figure. In contrast, loans made to mature within a year dropped from 72 percent to 71 percent of the total for construction firms and from 44 percent to 35 percent for service firms.

The bulk of bank loans to firms in most classes was short term (due within one year) according to both the 1955 and the 1957 surveys. Sales finance companies, as an example, got 96 percent of their bank credit on due-with-in-a-year terms. Ninety-two percent of the dollar amount of loans

Chart 6—Business and agricultural loans, percent distribution by maturity class



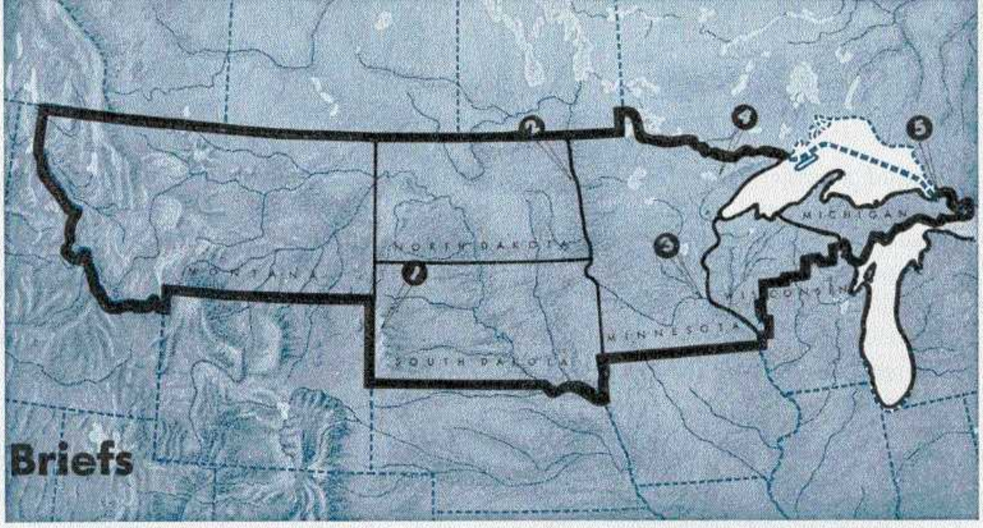
to commodity dealers was equally short. On the other hand, petroleum, coal, chemical and rubber manufacturers; service firms; and especially public utilities got most of their credit on longer terms. Public utilities were by far the lengthiest borrowers at member banks in the district while sales finance companies were the shortest borrowers.

Marked differences in the maturity structure of the business loan portfolios and the agricultural loan portfolios of district member banks are shown by comparison of the Federal Reserve surveys of agricultural loans and business loans. Relatively more business loans carried maturities of a year or less than did agricultural loans. Almost 70 percent of business loans matured within a year according to the 1957 Business Loan Survey in contrast to only 55 percent of the agricultural loans according to the 1956 Agricultural Loan Survey. But relatively more of the business loans carried maturities greater than five years than did agricultural loans. Fifteen percent of business loans matured in over five years while only 6 percent of agricultural loans carried such lengthy maturities. Chart 6 shows the differing maturity distribution of agricultural and business loan portfolios of Ninth district member banks.

In summary, the preceding analysis successively examined the amounts of loans made to particular kinds of businesses, and these amounts as classified according to various characteristics of the borrower, the lender, and the loan itself. The cross section of business loan portfolios obtained by the 1957 survey provided a wealth of statistical information that has and will continue to be seriously studied by students of the banking and economic fields. Tables summarizing the 1957 survey data can be obtained from the Research Department of the Federal Reserve Bank of Minneapolis by anyone who requests them. And another article based on interest rate data collected in the 1957 Business Loan Survey will appear in a future *Monthly Review.*

—William G. Dewald

Economic Briefs



1. S. D. pulpwood sent to Wisconsin mills

The first 25 carloads of Black Hills pulpwood to be sent on a regular basis were recently shipped from Spearfish, South Dakota to Wisconsin mills, beginning what may develop into much broader pulpwood buying programs in South Dakota by several Wisconsin paper mills. Up to now, Black Hills pulpwood has been used only on a limited trial basis as it could not compete with pulpwood reserves closer to mills. But a new, low 'multiple-car' rate which provides for a minimum shipment of 25 carloads at a time improves the competitive position of South Dakota producers. It is estimated that timber reserves in the Black Hills can sustain an annual cutting of more than 100,000 cords of pulpwood.

2. Missile base at Grand Forks, N. D.

A Nike missile installation will be built near the Grand Forks Air Force base. Cost of acquiring the land and constructing the buildings is estimated at \$1.5 million. About 130 acres will be used for the project. A battery of 100 men will be required to operate the installation which is scheduled for completion in about 18 months.

3. Univac gets missile contract

A \$20 million subcontract for guided missiles has been awarded to Remington Rand Univac. The order involves guidance systems for the Nike-Zeus anti-missile missile. The work will be done in St. Paul where Remington Rand employs about 5,000 persons. It is part of an over-all \$135 million Army contract.

4. Zenith iron mine closes

The Zenith iron ore mine near Ely, Minnesota was recently closed as conditions in the mining industry made its operation uneconomical. The closure affects about 270 employees. The mine had been idle for four months prior to the official shutdown and running on a part-time basis even earlier. The underground mine was opened in 1892, and has been owned and operated by the Pickands-Mather Company since 1920. Through 1957 the Zenith mine was second in total tonnage on the Vermillion iron range.

5. Michigan, Canada agree on bridge plans

A joint agreement to finance preliminary designs of a proposed international toll bridge across the St. Mary's river has been signed by the Michigan highway department and the Province of Ontario. The \$12 million structure will be designed by D. B. Steinman who also designed the Mackinac bridge. Preliminary plan costs are expected to total \$110,000, of which the Michigan highway department will pay 62½ percent since approximately that proportion of the bridge will be located in Michigan. It is planned that state and federal funds will be used to finance the American approaches to the bridge as they will be located on the interstate highway system and entitled to 90 percent federal aid.