MONTHLY REVIEW

Contents:

FEDERAL RESERVE BANK OF MINNEAPOLIS

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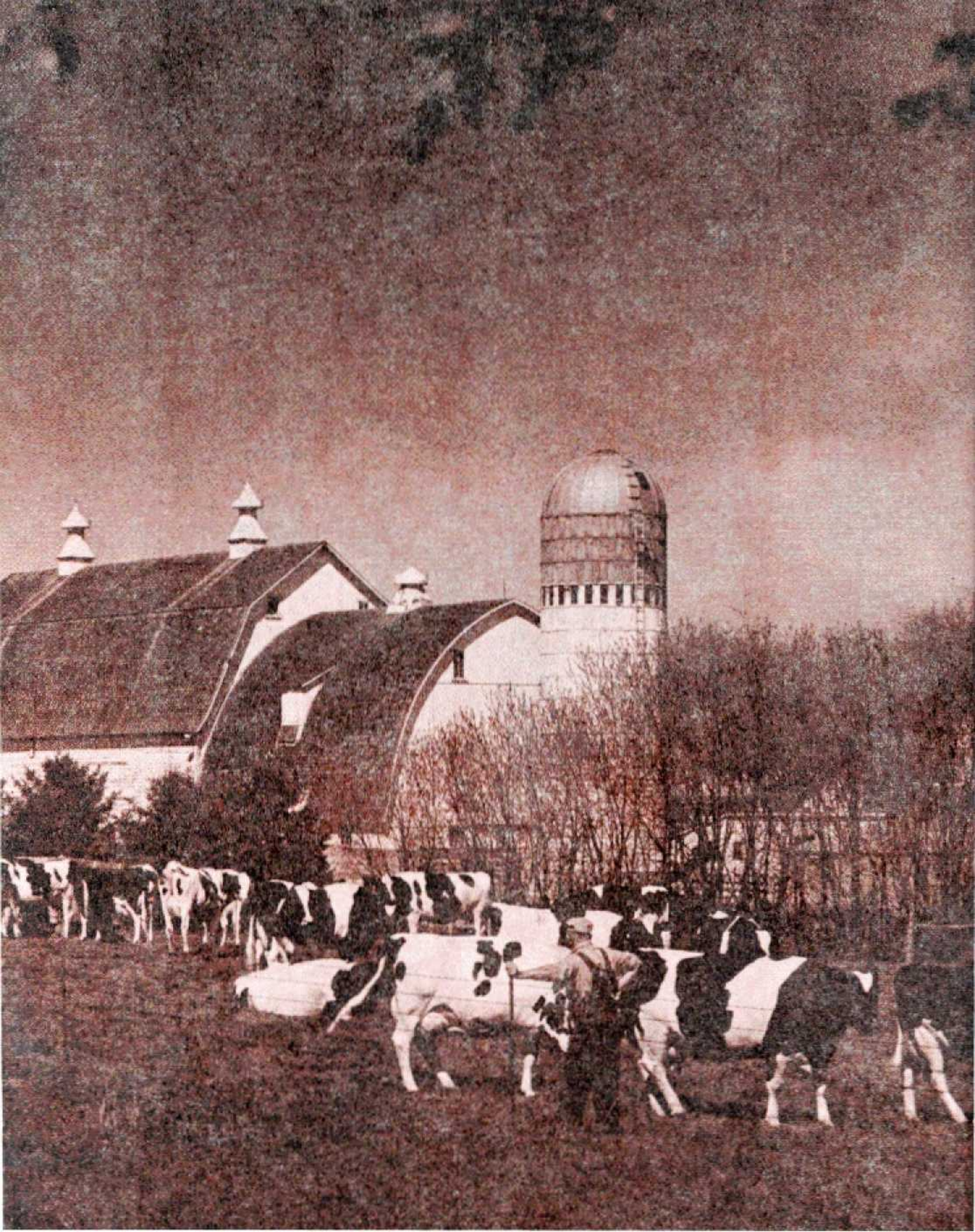
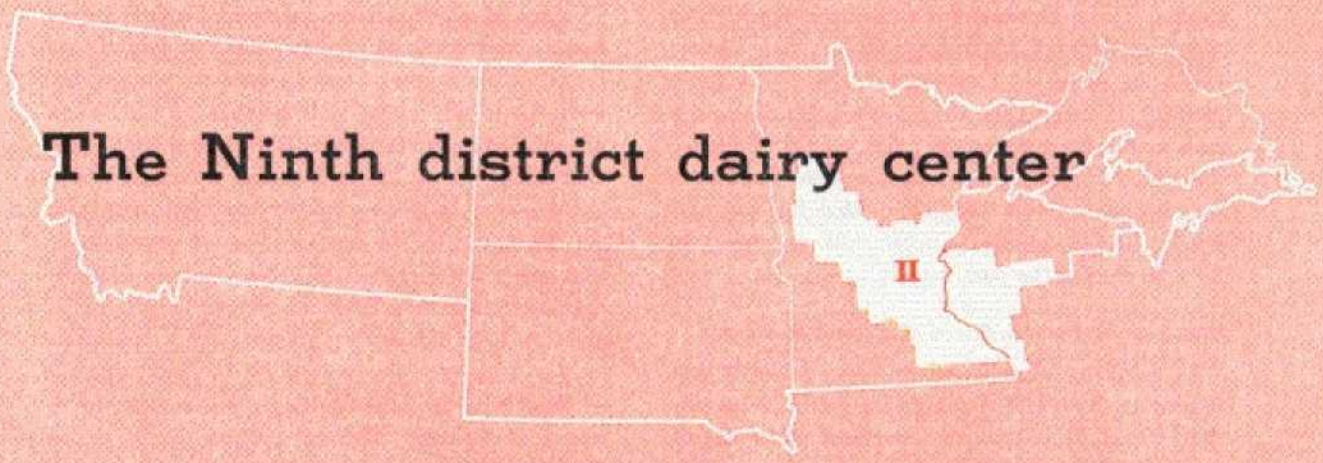


The Ninth district dairy center



This article is the sixth in a series concerning agriculture in the Ninth district. The material used as a basis for this article is taken from the research that is in progress in conjunction with the Upper Midwest Economic Study. Each article discusses a particular "type-of-farming" area as delineated in the study. In the current issue, the economic picture in Area II is discussed.

No major farm commodity produced in the Ninth district is as geographically concentrated as dairy production. This concentration is centered in Type of Farming Area II, a land mass that reaches from northcentral Minnesota to southwestern Wisconsin. While the income from dairy products is of some importance throughout the district, this area alone has accounted for more than 50 percent of the total cash receipts from the district's dairy products during the past 15 or 20 years. The influence of the dairy income has been enough to make Area II rank second behind the corn belt region of the district in terms of total cash income. Over the past two decades about 20 percent of the total farm receipts in the district have accrued to this area.

The orientation toward dairying is largely due to the soils, topography and climate of the area. The land surface is such that much of the cropland can be used most effectively in the production of roughages (hay, silage and pasture). There exists, however, a wide range in soils and topography. On the northern edge of the area the soils are generally thin, light and relatively infertile, while in the southern portions the soils are heavy and very fertile. In general, the area can be described as rolling to hilly. In the Mississippi River Valley the hills become quite steep and are subject to erosion which necessitates a concentration on roughages in cropping patterns.

The climate is cool and the growing season relatively short, particularly in the northern part. Frost-free days vary from 110 to 170 per year. Precipitation, averaging 20 inches in the west and 40 inches in the east, is adequate for the production of roughages and other alternative crops.

Another factor which contributes significantly to the dairy income of the area is the major outlet

for milk provided by the Twin Cities metropolitan market. The milk shed for this market, which is under a Federal Marketing Order, lies almost wholly in Area II. This market absorbs a large quantity of the higher valued class A milk (milk used in fluid consumption) that would otherwise move into manufactured milk markets. Producers included in the milk shed accounted for approximately 10 percent of the total milk produced in the area during the past decade.

Number of farms, farm size and land use

As is typical of areas where dairy farming predominates, Area II has a large number of relatively small farms. More than one-fourth of all the farms in the district were contained in this area in 1959. In 1949 there were 108 thousand farms in the area, a figure that had been reduced to about 93 thousand by 1959. This downward adjustment, about a 14 percent decrease during the 10-year period, is somewhat less than the rate of decrease experienced throughout the district.

The importance of changing farm numbers is found in the composition of the economic sizes within the total number. These changes are shown in table 1. The significant relative declines in the number of noncommercial farms (those with farm product sales of less than $2,500) and Group II farms (those with farm product sales of between $2,500 and $10,000) indicate the extent to which adjustment is taking place in the area. While the relative importance of Group I farms (those with farm product sales of over $10,000) increased markedly between 1954 and 1959, their total number is still small in comparison to the other groups.

TABLE 1—NUMBER OF FARMS BY ECONOMIC CLASSIFICATION, AREA II

	All farms (thousands)	Group I	Group II (percent)	Noncommercial
1949	108	6.5	57.6	35.9
1954	102	8.7	56.9	34.4
1959	93	19.2	53.5	27.3

Farms in Area II are relatively small in acre size. In 1959 the average size farm was 163 acres, 95 acres of which were in cropland. Slightly larger farms with proportionately more cropland are found in the southern and western portions of the area. Over all, almost 50 percent of the farms ranged in size from 100 to 220 acres with 27 percent falling in the 100-acre or less class in 1959.

Some insight as to why dairying is so important can be found in the combination of small farms that generally carry on an intensive type of farm operation due to a high labor supply-land ratio, and the high proportion of land that is suitable only to roughage production. Of the total amount of land in farms, almost 50 percent is devoted to hay and pasture. This proportion tends to be higher in the northern portions than in the southern counties. The more productive soils and climatic conditions of the southern part allow a greater amount of land to be used for corn production. This, in turn, facilitates livestock and hog feeding, lessening the dependence on dairy income in those counties.

The total land acreage in farms has been decreasing since 1945. It amounted to 15.1 million acres in 1959, which compares with 16.2 million acres in 1944. Increased nonfarm use of land in the Twin Cities area and a small amount of land abandonment on the northern edge account for most of the decline. In all, about 85 percent of the land mass in Area II was reported in farms. This proportion varied considerably, of course, with as little as 20 percent of the land in the metropolitan area counties reported in farms.

Cash farm receipts and farm production

Total farm marketings amounted to $682 million in 1958. Crop sales were of relatively minor importance, accounting for only 13 percent of the total. The sale of dairy products accounted for 39 percent of the total, just ahead of the total sales of all other livestock. Table 2 indicates the degree that the sources of farm marketing income have shifted during the past 20 years. During the period 1954-1958, the Group I farms accounted

for almost 30 percent of the area's total cash receipts, while the Group II and noncommercial farms accounted for about 60 and 10 percent, respectively.

TABLE 2—CASH RECEIPTS BY SOURCE, AREA II

	1939	1949 (percent)	1958
All products	100	100	100
All crops*	19	12	13
All livestock	81	88	87
Dairy products	43	41	39
Poultry products	10	13	13
Other livestock	28	34	35

*Includes a minor portion of forest products.
Source: Census of Agriculture and U. S. Department of Agriculture.

Marked differences existed among the groups of farms in the relative importance of the various sources of cash receipts. In particular, dairy products accounted for a relatively lower proportion of cash receipts on Group I farms than on Group II. During the 1954-1958 period, 31 percent of the Group I farms' cash receipts were derived from this source, while the smaller Group II farms received 48 percent from dairy products.

There have been some noticeable trends over time in the numbers of the various classes of livestock. The number of dairy cattle, the most important class, has remained fairly constant over the past 10 years, increasing only 3 percent between 1949 and 1959. Other cattle, however, have increased almost 10 percent in number over the same period. There has also been a slight increase in the number of hogs in Area II. On a per farm basis, the trend in livestock numbers has been definitely upward (table 3).

TABLE 3—NUMBERS OF LIVESTOCK PER FARM, AREA II

Year	Cattle and calves	Milk cows	Sheep and lambs	Hogs and pigs	Chickens
1939	18	11	22	8	95
1944	24	13	26	14	151
1949	23	12	32	22	150
1954	30	15	39	35	199
1959	33	17	44	36	202

Source: Census of Agriculture.

Milk production averaged 8,577 million pounds annually during the 1954-1958 period, an increase of 28 percent over the 1939-1943 level. As shown in table 4, milk production per cow increased 31 percent during the same time span to reach an annual average of 7,208 pounds per cow.

TABLE 4—TOTAL MILK PRODUCTION, NUMBER OF COWS AND MILK PRODUCTION PER COW BY FIVE-YEAR PERIODS, AREA II

	Total milk produced (million pounds)	Number of cows (thousands)	Production per cow (pounds)
1939-43	6,699	1,224	5,497
1944-48	7,168	1,244	5,762
1949-53	7,386	1,117	6,612
1954-58	8,577	1,190	7,208

Source: State-Federal Crop Reporting Services, Minnesota, Wisconsin and Michigan.

Even with the improvement in herd size and productivity, the area includes a large number of relatively small dairy herds. Among the commercial farms, for example, over 20 percent of the farms had dairy herds of less than 10 cows while less than 6 percent had 30 or more cows per herd. Part of this is explained in the fact that many of these small herds are part of the livestock program of general farms.

Dairy farmers who produce for the Twin Cities market, however, should be in a class by themselves. This group of specialized dairy operators has probably shown much more rapid growth in herd size and productivity than indicated in the totals of all farms reporting milk cows. These farmers operate under pressures strongly inducive to unit enlargement and efficiency increase to gain a greater volume of income. The pressure arises mainly out of higher costs that are incurred through the more stringent standards required for grade A milk.

Corn, oats and hay are the major crops produced in Area II. During the period 1954-1958, an average of 2,084 thousand acres of oats, 2,009 thousand acres of corn and 1,903 thousand acres of hay were harvested each year. Soybeans ac-

counted for an additional 511 thousand acres with other crops being of minor importance. Differences in cropping patterns within the area were not great, although more emphasis was placed on oats and hay in the north, while corn and oat acreages were about equal with a little higher proportion of hay acreage in the west. In the southern part, corn was more dominant in the cropping pattern.

Crop yields throughout the area were relatively high. The average corn yield during the 1954-1958 period averaged 54.5 bushels per acre, and oats averaged 43.5 bushels per acre. Significant differences in yields among the groups of farms did exist. For example, corn yields on the Group I farms averaged about 58 bushels per acre and on Group II farms, about 54 bushels per acre. The comparison in oat yields was 51 bushels per acre and 43 bushels per acre, respectively.

Capital investment

Total capital investment in Area II farms averaged $2,300 million annually during the 1954-1958 period. Of this total, 66 percent was invested in real estate, 14 percent in livestock and 20 percent in machinery. Commercial farms (Group I and Group II) controlled over 81 percent of the total investment, while noncommercial farms accounted for the remaining 19 percent. Out of the total livestock investment of $324 million, cattle and calves—primarily dairy stock—accounted for 85 percent and hogs, for 12 percent.

Group I farms held almost 20 percent of the total investment, while Group II farms held 61 percent. Group I farms held a relatively larger proportion of their investment in land and buildings and less in machinery than did the Group II and noncommercial farms. The Group II farms, however, invested a relatively larger amount in livestock than Group I farms did, reflecting the efforts of the smaller farm operators in intensifying their operations to achieve a greater income.

The average Group I farm represented an annual investment of $51,136 during the 1954-1958 period. The Group II per farm annual investment amounted to $24,469 per year and the noncommercial farm had an investment of $12,236 per year over the study period.

Production expenses

Farm production expenses averaged $436 million per year in Area II during the 1954-1958 period. Cash farm expenses accounted for 78.5 percent of this total with the largest single item, feed expenditures, accounting for 22 percent of the total. The remaining 21.5 percent of the production expenses was depreciation. Cash expenditures amounted to 85 percent of the total production outlay of the Group I farms and 79 percent on the Group II. Conversely, depreciation accounted for a larger proportion of the total on the smaller farms.

Labor utilization

The over-all level of labor utilization in Area II, primarily a dairy area, was relatively lower than that noted in many other areas of the district. This was particularly true in comparing this area with the ranching and wheat-livestock regions of the western states.[1] In all, only 58 percent of the labor available for farm work was effectively utilized in terms of known farm technology. Labor utilization on the Group I farms, averaging 78 percent, compares more favorably with similar sized farms in other areas and reflects some of the economies that can be gained as the unit income and size are increased. The effective labor utilization on the Group II and noncommercial farms—and these farms make up about 92 percent of all farms—was estimated at 63 percent and 36 percent.

Upon first glance these labor utilization figures would appear contrary to the fact that the dairy farm is a relatively heavy labor using unit. However, it must be remembered that the farms in

[1]See Upper Midwest Agriculture: Structure and Problems by A. C. Knudtson and R. W. Cox, Study Paper No. 3, Upper Midwest Economic Study, University of Minnesota, January, 1962.

this area are small, averaging 158 acres in size, and that the average farm reporting milk cows had a herd of only 17 cows during the 1954-1958 study period. These averages contrast with current known dairy technology which indicates that modern dairy farming will allow a single man to handle 40 to 50 cows and still have additional time for other farm work. Thus, since the dairy farm is a rather consistent user of labor throughout the year, the above utilization data reflect a relatively large amount of underemployed people. These labor utilization estimates point out, probably better than any other available information, the importance in increasing farm and dairy herd size in the over-all adjustment toward more economically efficient farm units.

Farm income

The annual average gross farm income of all farmers in Area II amounted to an estimated $699 million during the 1954-1958 period. Cash farm marketings averaged $614 million per year over the period; government payments averaged $7 million, and noncash income, including produce used in the farm home and the rental value of dwellings, $78 million. Commercial farms, 65.5 percent of all farms, accounted for 92 percent of the total gross income.

Production expenses averaged $436 million annually over the period. Thus an annual average net income of $263 million was realized by the area's farmers.

The per farm income and differences in the

Per farm gross income, expenses and net income, 1954-58 average, area 11

	All Farms	Group I	Group II	Non-Comml.
Cash receipts from farm mktgs.	6028 dollars	20641 dollars	6451 dollars	1651 dollars
Government payments	69 dollars	136 dollars	79 dollars	36 dollars
Noncash income	761 dollars	1110 dollars	744 dollars	700 dollars
Gross farm income	6858 dollars	21887 dollars	7274 dollars	2387 dollars
Cash expenses	3360 dollars	10736 dollars	3564 dollars	1136 dollars
Depreciation	921 dollars	1858 dollars	975 dollars	625 dollars
Production Expenses	4281 dollars	12594 dollars	4539 dollars	1761 dollars
Net income	2577 dollars	9293 dollars	2735 dollars	626 dollars
Estimated costs of capital and operator's labor	3977 dollars	5855 dollars	4346 dollars	2894 dollars
Returns to management	-1400 dollars	3438 dollars	-1611 dollars	-2268 dollars
Net cash income	2737 dollars	10041 dollars	2966 dollars	551 dollars

earning capacity among the economic groups of farms are shown in the chart. These figures not only show the earning power of farms but are, in a sense, a summation of the differences in the productivity and efficiency observed among the groupings. Perhaps the most striking comparison can be made between the Group I and Group II farms, both of which are primarily dependent upon agriculture for their income. In each of the income concepts shown—gross, net and net cash —the Group I farm achieved an income of more than three times that of the smaller.

The per farm net income, $9,293 on the Group I farm and $2,735 on the Group II, is the return to all factors of production used on these farms. The factors include invested capital, operator's labor and the operator's managerial ability. By separating these components and distributing the net income among them, it is possible to get an approximate idea regarding their individual return and, in particular, to derive an estimate as to the value of the farm operator's time and effort in the actual management of the farm. In estimating the return to management, the assumed cost of capital (5 percent of the invested capital) and the value of the operator's labor (assumed equal to the hired farm labor wage rate) were deducted from net income. The resulting estimate shows that the average Group I farm operator received $3,438 for his managerial ability. The average Group II farm operator, on the other hand, received a negative return of —$1,611 for his management efforts. In these terms, the smaller farm operator would have been economically better off had he invested his funds elsewhere and worked for another farmer at the prevailing wage rate. While the level of managerial ability might be higher on the larger farm, this type of analysis is a further indication of the important relationship between farm size and income.

The analysis of net cash income provides a measure of the viability of these farms. It is this cash flow that must provide for family living expense, capital replacement and debt retirement. The net cash income (cash receipts plus government payments less cash farm expenses) of the average Group II farm amounted to $2,966, a figure that appears to be little more than adequate for family living expenses. The annual depreciation of the average Group II farm amounted to $975. Thus, if this average farm were to more than maintain its capital at the depreciation rate, family living expenses would have to be held to about the $2,000 level. This sum would allow for very little personal saving, much less for retirement of any debt that would, in all likelihood, be incurred in the normal operation of the farm. This hypothetical illustration based on averages indicates the weak and nonsustainable position of many Group II farms. If these farms were to continue as operational units, without any reorganization, a fairly large amount of supplemental income from off-farm sources would be required. However, the fact that 56.7 percent of all farms in Area II fell into the Group II category is a strong indication that there will be a continued attrition of this group together with the establishment of large units through farm consolidation.

TABLE 5—OFF-FARM EMPLOYMENT OF FARM OPERATORS, 1954, AREA II

	Working off-farm	Working off-farm 100 days or more (percent)	With off-farm income greater than farm income
Group I	30	5	3
Group II	27	8	7
Noncommercial	66	49	48

Off-farm income

The opportunity for off-farm work is greater for Area II farmers than for those in almost any other area in the district. The reason for this, of course, is the proximity of the Twin Cities metropolitan area and other fairly large communities

in the area. This factor is highly important in the analysis of the area's agriculture and, in particular, of the noncommercial farm sector. As shown in table 5, 66 percent of these farmers worked part time off the farm, and almost half worked more than 100 days off the farm. Further, 48 percent of the noncommercial farm operators received more income from off-farm sources than from farm production. Thus, in view of the income position of the noncommercial farm, it is likely that these farms are viewed as a means for supplemental income rather than as the prime source of income for a large majority in this class. Unfortunately, this sideline might well have a surprisingly high cost in terms of alternative uses of the operator's time and efforts.

The commercial farm operators, however, did not appear to be working off the farm to a much greater extent than did commercial farmers in other areas of the district. And a higher proportion of the more prosperous Group I farmers worked part time off the farm than did the Group II, although a slightly larger proportion of the Group II farmers worked 100 days or more off the farm and earned a greater income from this source. These figures point up, to some extent, the importance of the labor utilization estimates. While the labor on the Group II farms is effectively utilized at the rate of 56 percent, this is probably due to the inefficiencies inherent in the small unit, and the underemployed labor is not actually available for other uses.

Conclusion

Type of Farming Area II is the dairy center of the district. For the past 15 to 20 years this area has accounted for more than 50 percent of the district's total cash receipts from dairy products. The soils, topography and climate are such that the production of roughages is the most efficient means of using the land resource. The area also encompasses the Twin Cities metropolitan area, a major market for milk.

Another distinctive feature of Area II is the large number of farms. They numbered 93 thousand in 1959, about one-fourth of the total number of farms in the district. Most of these farms are small in terms of economic and acre size; less than 20 percent of the area's farms had farm product sales of $10,000 or more in 1959, and about 54 percent had sales of between $2,500 and $10,000. The average size of farm in 1959 was 163 acres with 95 acres of that in cropland; about half of all the farms ranged in size from 100 to 220 acres.

Total farm marketings amounted to $682 million in 1958, of which about 40 percent was derived from dairy products. In general, the smaller farms were relatively more dependent on dairy product income than the larger farms.

The predominance of small farm units has led to a rather low level of labor utilization relative to what could be achieved if modern dairy techniques could be applied. This problem of inefficient sized units has led to an agricultural economy top-heavy with farms that are in a weak and nonsustainable income situation. Thus, Area II is likely to undergo a continuation of off-farm movement, and the rate of farm number decline is likely to increase in the future. The pressure will be two-sided; good managers will see the income potential of larger units and will strive to expand, while others will see the futility of attempting to gain an adequate income from insufficient resources and will sell out.

One influence that is felt more strongly in Area II than in other district areas is the potential labor market found in the Twin Cities and other large communities. This provides the farmer with an excellent opportunity to supplement his income from other sources. To a large extent, it appears that the noncommercial farmers are strong users of that opportunity. Whether or not the smaller commercial farm operators will be able to make significant use of this opportunity to supplement their farm income will depend in part upon their ability to modernize their units and, thus, to free the potential labor time that is now available.

Current conditions . . .

January and February usually mark a seasonal low point in business activity in the Upper Midwest. This year should prove to be no exception. In fact, the extreme cold in recent weeks might result in the seasonal variation being even more noticeable. Certainly, it might be expected that outside work would be curtailed as much as possible during the unusually long period of subzero weather. In spite of the cold, however, shoppers at the Twin Cities department stores have increased their purchases a moderate amount from year ago levels. Also, the number and the dollar volume of checks cleared through the Federal Reserve bank during January were up substantially from year ago levels indicating a continued high level of financial activity.

Improvement in district personal incomes through the end of 1962 provides a favorable base for economic activity. December personal incomes, for example, were up an estimated 8.3 percent from a year earlier, with farmers' net income showing a particularly strong trend. Wages and salaries exhibited a slight decline from November, but were up more than 7 percent from December of 1961.

In recent weeks a slackening occurred in the rate of growth of time deposits at the city banks, but in country banks the upward trend continued strong. A substantial improvement in the rate of demand deposit growth occurred at both city and country banks during the 4-week period ending about mid-January. On the other hand, bank loans and investments changed very little, indicating a slight improvement in the district's bank liquidity position at mid-January. Member bank borrowings at the Federal Reserve bank have been almost nil in recent weeks.

In summary, the most recently available series of district economic indicators and particularly the favorable agricultural income record suggest the district's economy is continuing in a relatively strong position in spite of the seasonal blues which prevail frequently at this time of year.

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

NONFARM EMPLOYMENT PICTURE

Major economic indicators in the Ninth district expanded throughout 1962, with the exception of employment in nonfarm establishments. Such employment, seasonally adjusted, rose to a peak in August 1962 and declined slowly during the remainder of the year. Even so, the number of workers employed in urban centers last December was 2 percent above a year earlier.

The cutbacks made in iron ore mining, in the simple methods of beneficiation and in shipping led to an employment contraction in both the mining and transportation industries. In mining, district employment dropped approximately 1,200 workers more than seasonally from June to December, inclusively. Compared with a year earlier,

employment was up 2.5 percent in June and down nearly 3.5 percent in December. In the fields of transportation, communication and public utilities, the number of workers declined by about 1,280 workers from June to December inclusively —more than the seasonal trend.[1]

The shrinking of district nonfarm employment in the latter half of 1962 also extended to the manufacture of durable goods. From last August to December inclusively, employment in these industries declined by 600 workers, although generally no seasonal contraction occurs during this period. Employment fell off in the manufacture of furniture and fixtures, primary metal products, lumber and wood products, nonelectrical machinery, and ordnance and scientific instruments.

In addition to the demand in the private market for durable products produced in this district, the amount of government contracts awarded to manufacturers in this area also has a significant bearing on the level of output. The amount of military prime contracts awarded in the four states wholly in the district aggregated $100 million in the third quarter of 1962, compared with $147 million and $136 million in the second and first quarters respectively. The falling off in such contracts has had some bearing on output and, therefore, on employment.

On the other hand, employment in the manufacture of nondurable products continued to expand during the latter half of 1962. However, employment during the latter half of 1962 in the relatively large food processing industry was only slightly above the total a year earlier. Montana and both Dakotas recorded a decline in such employment despite the harvesting of near-record farm crops, while in Minnesota only poultry dressing plants, and canning and sugar refining establishments noted significant rises in food processing employment.

[1]Estimates on employment in transportation alone are not released in the published reports. A rise in employment in communications and public utilities may have partly offset the decline in transportation.

Employment in other broad industry categories continued to expand in the latter half of 1962. The largest growth occurred in the government field, reflecting the increase in public education instructors to meet annually rising enrollments.

DISTRICT BANKING DEVELOPMENTS

The broad movements which characterized the deposit behavior over the year 1962 (summarized in the January 1963 issue of the *Monthly Review*) seem to be reaching into 1963. Thus, total member bank time deposits appear to have continued the rise initiated by the January, 1962 change in Regulation Q, although the rate of increase seems now to have diminished. Between December 12, 1962 and January 9, 1963, the increase in district member bank time deposits amounted to $24 million, as contrasted to the average January through November monthly increase of about $38 million. This slowdown in the growth of deposits in the current period is due primarily to an absolute decline of city bank time deposits. Between December 12, 1962 and January 9, 1963, city bank time deposits fell $3 million, whereas the average January through November monthly change amounted to a $21 million increase. Time deposit growth in country banks still continues to increase strongly.

It is interesting to note further that the rate of growth of demand deposits now seems to be increasing. Gross demand deposits over the four-week period ending January 9, 1963, rose $51 million as contrasted to a January through November average monthly change of $2 million. Moreover, this accelerated relative growth of demand deposits seems to be common to both city and country banks within the district, although the largest increase took place in district city banks.

Thus far in 1963, the data do not suggest that bank credit has kept pace with deposit behavior. Between December 12, 1962 and January 9, 1963, member bank net loans rose $9 million, while member bank investments fell $5 million. In this

respect the contrast between city bank and country bank credit behavior is significant. Over this four-week period city bank net loans fell $14 million while investments rose $13 million. In country banks, on the other hand, net loans rose $23 million while investments fell $18 million. The combined result of these changes has been a net increase in member bank net loans and investments of $4 million.

This relative behavior of deposits and bank credit suggests an increase in the liquidity of district member banks. In turn, this implied increase in the liquidity of district member banks is reflected in a fall in member bank borrowings from the Federal Reserve bank. In fact, between December 12, 1962 and January 9, 1963, member bank borrowings fell $10 million.

It is interesting to note that the very preliminary January 16 bank credit figures suggest a further decline of district member bank credit.

Commodity Credit Corporation certificates: an alternative short term investment

To call a spade a spade makes good sense when speaking of spades. To call a loan a loan when speaking of farm loans does not always make good sense and, unfortunately, can be a misleading viewpoint when taken by a banker in attempting to maximize returns on short term investment. This refers in particular to an item termed "loans to farmers directly guaranteed by the Commodity Credit Corporation." While a farmer might think of this item as a 'loan,' the banker's viewpoint should be 'riskless investment.' A close look at these loans brings out two distinct cases, one involving a farmer-CCC relationship, the other a CCC-banker relationship. The fact is, funds handled under this item in no way represent a debt on the part of the farmer to a bank; rather they represent the obligation of a farmer with respect to his participation in government price support programs. More properly, these funds are advance payments to the farmer by the government for the production of certain crops with the farmer's having the option either to deliver the crops or to return the advance payment plus interest to the government. The bank merely acts as an agency to disburse the advance payment or loan to the farmer; this is the only real connection between the bank and the farmer-government relationship. The bank is not involved in the final settlement of the individual loans; about the only responsibility the bank has is to be sure that the farmer has received valid approval for the loan by the Agricultural Stabilization Committee county office. There is no further connection between the bank and the farmer with regard to this particular loan once the bank has made the disbursement.

Under current CCC procedures the value of all of the loans to farmers issued during a given crop year is aggregated in what is termed a commodity pool. As evidence that the funds have been paid to the farmer, the bank retains a Certificate of Interest that shows the amount of the cash payment, the date of payment, the bank's transit number and other necessary information. The value of the CCC certificates held by any bank,

then, is simply part of the commodity pool with no relationship to a specific commodity — much less a specific crop loan with an individual farmer.

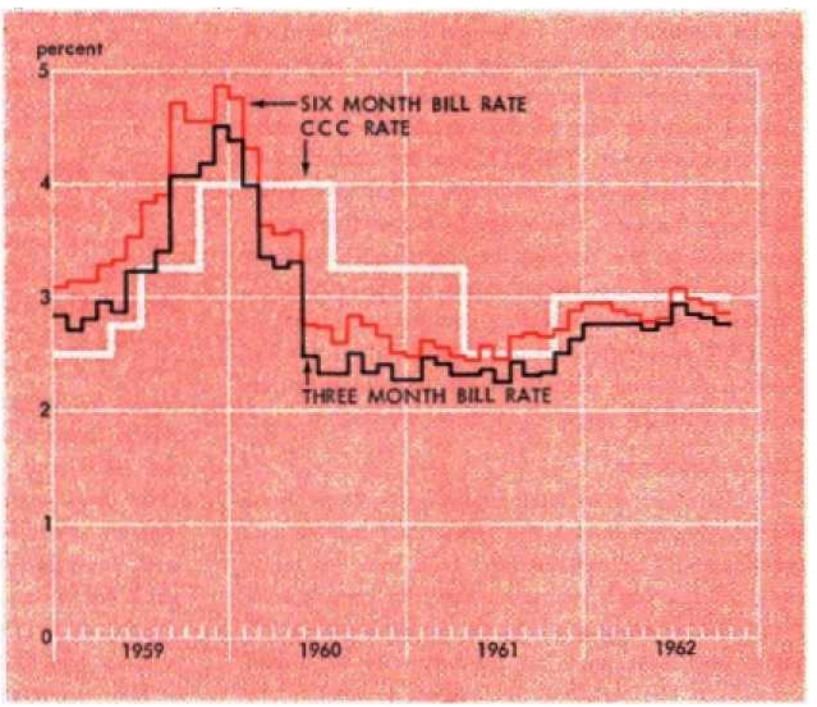
Each bank, once it has acquired a certificate, has the option of immediately redeeming it with the CCC or retaining it for some period of time. If the bank redeems the certificate, the transaction is over and done with. If it chooses to retain it, then the certificate represents an investment on the part of the bank in the over-all CCC commodity pool. The major error in viewing these funds as bank loans to farmers is that the amount of certificates is simply not a loan to a farmer but is, in fact, a short term investment by the bank. Thus, the real importance to a bank of the certificate lies in this short term investment feature. As such, certificates compare favorably with other short term investments, particularly Treasury Bills. Certificates carry a competitive and relatively stable interest rate; they are highly liquid and have well defined terms, which lend them to easy management as a portfolio item.

Interest rates

The rate of interest earned by certificates is fixed by the CCC subject to change upon published notice in the Federal Register. While the rate may be increased or decreased according to CCC policies, a 30-day notice is mandatory before the rate is reduced. Since the present program for bank participation was inaugurated in 1958, certificate interest rate changes have been fairly closely related to the market rate of 90-day and 6-month Treasury Bills. As shown in chart 1, the certificate rate generally lagged behind the market rate for Treasury Bills during the first year and a half that the program was in effect. After that period, however, the Bill rate dropped sharply and the certificate rate, which was less responsive to the change, became very favorable. In fact, the spread between the certificate and Bill rates reached almost 2 percentage points for a short period. In the spring of 1961, the certificate rate was brought into line with the Bill rate and held there through 1962. The certificate rate, however, has been slightly higher than the 90-day Bill rate throughout the period since 1961 and, except for a few months, exceeded the market rate of the six-month Bill.

The chart also indicates a degree of stability

Chart 1—Monthly average Treasury Bill yields and rates paid on CCC certificates of interest



in the certificate rate. During the past three years the certificate rate has been changed only four times with the current rate of 3 percent in effect since November 1961. This relative stability in interest plus the 30-day notice that must be given before the rate can be reduced adds a further favorable note on behalf of the certificate as a short term investment.

Liquidity

There is probably no investment that a bank can hold as near to cash as the Commodity Credit Corporation certificate. The corporation will redeem a certificate at face value plus earned interest at any time between the date a bank procures the certificate and the maturity date of the certificate. All the bank has to do is to turn the certificate in as a cash item through the regular bank channels. A short lag does exist between the time the face value is converted to cash and the time interest is received by the bank, as that interest is computed at a regional office of the CCC and then sent to the bank.

The maturity date of the certificate is the first day of August following the crop year in which the funds were disbursed to the farmer. Thus, the interest earning life of the certificate is usually less than one year. The CCC has the authority to recall the outstanding certificates of any crop year. This may happen, for example, when the aggregate value of the outstanding certificates exceeds the value of all loans represented by the crop pool. Before recalling outstanding certificates, however, the CCC must give the holders 15 days notice. Such a provision permits banks time to make an orderly shift in their short term holdings.

Other features

Unlike other short term investments, there is no market through which the bank may buy or sell certificates. The certificates come into existence only when a bank disburses the loan money to a farmer. The originating bank, or any bank holding a certificate, also has the power to terminate the life of the certificate before its maturity date by simply redeeming it with the CCC. Once the certificate is cashed, its value becomes part of the corporation's share in the commodity pool and, for all practical purposes, is lost as an investment opportunity for banks. The law, however, does authorize the CCC to make its share of the funds in the commodity pool available to any approved institution upon direct application to the Corporation, an option that was exercised during the first six months of 1960, although it is not currently followed.

Provisions do exist, however, for interbank transfer of certificates. All a bank need do is endorse and deliver the certificate to another bank which, in turn, may either cash it or hold it as an investment. As the holder of record of each certificate is determined by the transit number on the certificate, it may be submitted to the CCC for a reissue showing the proper ownership. Interest earnings are payable by the CCC to the holder of record. Of course, certificates can be and are transferred without making the change in ownership records. In order to facilitate the handling of certificates, the CCC will also exchange a single certificate equal to the value of several certificates that a bank might accumulate.

Dollar value of the commodity pool

The dollar total involved in the commodity pool has varied considerably, reaching a high of over $3.5 billion during early 1959 and a low of around $1.3 billion in mid-1960. In July of 1962, the end of the 1961 crop year loan program, total loans to U. S. farmers amounted to $2.2 billion. Loans to farmers in the four full states in the Ninth district amounted to $242 million during the 1960 crop year and $170 million during the 1961 crop year. Fluctuations in the annual totals depend upon farmer participation, which varies with such factors as the particular support program in effect, the support price-market price relationship, crop output and other governmental activity regarding surplus stocks.

The seasonal pattern of the distribution of

loans to farmers is determined primarily by the dates on which farmers may apply for loans. For small grains and soybeans the terminal date is January 31, while for corn the cut-off date is May 31. Thus, the bulk of the funds is disbursed during the period September through January (table 1). For example, in Montana and North Dakota, where wheat loans are of primary importance, 86 percent and 70 percent, respectively, of the loans were made by the end of October during the 1961 crop year. For these states the percentages were 99 and 98, respectively, by the end of March. In Minnesota and South Dakota, where corn loans are of greater importance, only 13 percent and 35 percent, respectively, of the total loans were made by the end of October with each state surpassing the 90 percent mark at the end of March. The nationwide pattern fits between the above examples. The time of the crop harvest and the calendar year-end income position of farmers will cause a variance in the percentages from year to year, of course, although the 1961 crop year pattern is fairly typical.

TABLE 1—CUMULATIVE PERCENTAGE DISTRIBUTION OF CROP LOANS TO FARMERS

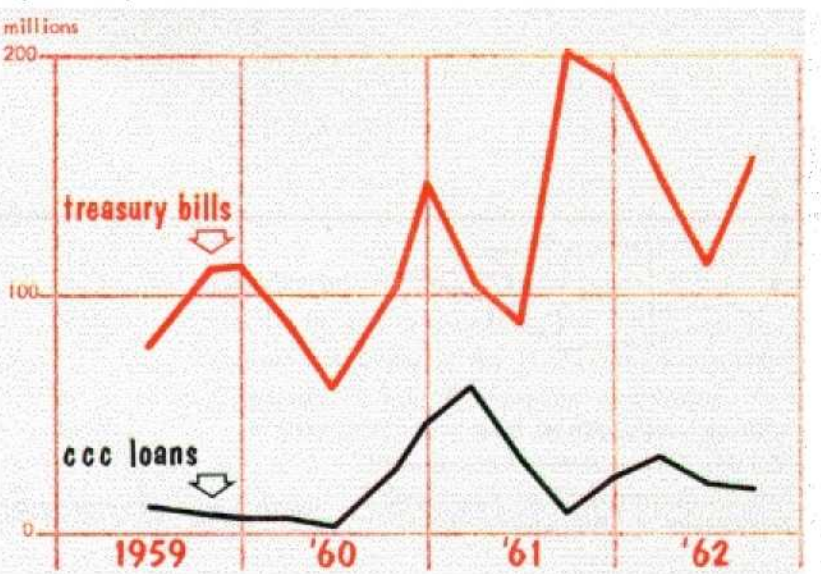
1961 crop year	Minn.	Mont.	N.D.	S.D.	4 States	U.S.
Aug.-Oct.	13	86	70	35	26	33
Nov.-Dec.	46	93	86	53	54	65
Jan.-Mar.	92	99	98	91	93	94
Apr.-July	100	100	100	100	100	100

This unevenness in distribution during a crop year is perhaps the largest problem facing a bank in incorporating the certificates into the investment program. This problem, however, can be negated to some extent in the interbank transferability of the certificate. Banks in Minnesota and South Dakota, for example, might acquire, if they find it desirable, certificates derived from wheat loans made in the early fall months in the western states. By the same token, banks in the wheat states could participate in the late winter corn loans. Thus, in terms of the over-all commodity pool, no individual bank is necessarily restricted to those certificates originated in its area. This, of course, does not help during the April to July period when few new loans are available.

Bank participation

The holding of certificates as short term investments by banks has not been very extensive relative to the total amount of funds in the commodity pool. During the period between June 1958 and January 1960, when the certificate interest rate was lower than the market rate for Treasury Bills, little interest was shown in certificates; banks held

Chart 2—Treasury Bill holdings and CCC certificate holdings by country member banks, Ninth district



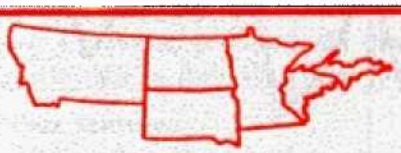
$150 million of a total $1.7 billion in the pool at the end of 1959 and in early 1960. Bank participation remained low during the first half of 1960 in spite of the highly favorable certificate interest rate relative to the market rate of Treasury Bills and the fact that during this period, certificates issued on the CCC's share of the commodity pool were available upon application. Since that time, bank participation has been somewhat greater, probably due to a continuing advantageous interest rate, although banks held more than one-half of the total funds in the commodity pool only during the month of April 1961.

Banks in the Ninth district have generally conformed to the same pattern of certificate investment as have all banks in the nation. Certificate holdings by district member country banks as well as their holdings of Treasury Bills, according to call report data, are shown in chart 2. Typically, district country banks are the primary investors in both Treasury Bills and certificates. In fact, the only time reserve city banks held significant amounts of certificates was at the time of the December, March and June 1962 call reports. And then they held, at the greatest, $7.9 million out of a total $21.9 million held by all district member banks.

The call report data show some evidence that banks are not using the certificates in an optimal manner. While the data indicate some responsiveness on the part of banks to the differential between the certificate rate and the Treasury Bill rate. the seasonal changes indicate more strongly the seasonality in loan disbursements to farmers. A comparison of Treasury Bill holdings with certificate holdings also shows that the banks tend to treat all short term investments the same or at least to expand and contract their holdings of certificates and Treasury Bills simultaneously.

In sum, it might mean some extra income to banks tending to hold short term Treasury Bills if they re-examine their procedures in evaluating CCC certificates. The certificate has the necessary attributes of liquidity desired in a short term investment and has typically earned a higher interest rate relative to Treasury Bills. Whether or not this type of investment will remain open to banks in the future depends on the form government programs take. In recent years. however, there has been no shortage of investment opportunities in the commodity pool, and it is quite possible that this will continue for at least a few years.

— Richard Herder



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