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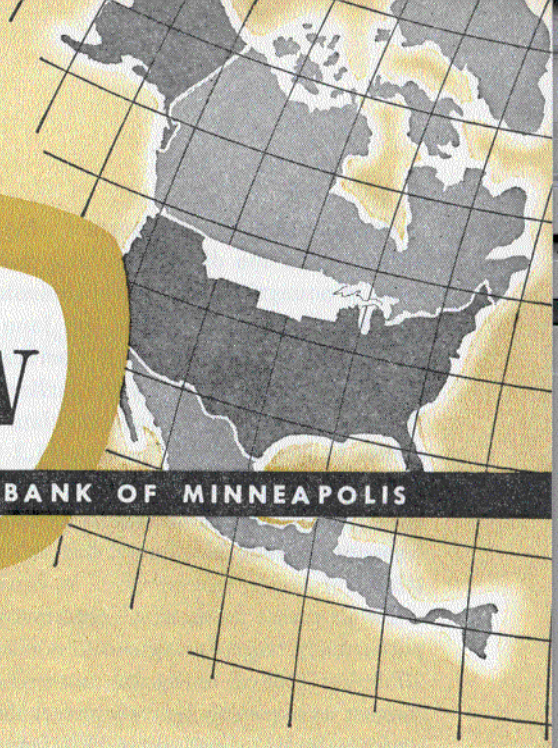

Monthly Review
OF THE FEDERAL RESERVE BANK OF MINNEAPOLIS

Modest economic gain in 1959

In spite of reduced farm income and some loss of earnings because of strikes, the Ninth district economy performed reasonably well during 1959. It is true, however, that at the beginning of the year the area's economy was fully abreast of the nation's strong recovery movement whereas by the end of the year it was lagging somewhat as measured by several statistical indicator series.

This lag can be traced principally to the effects of drouth and lower farm prices on total farm income and to the effect of the steel strike on wages and income in the important mining areas of the district.

In general, however, (outside of agriculture and mining) the district's business, trade and finance statistics for 1959 indicate modest gains from the year-earlier data.

November bank debits this year, for example, were up 9 percent from November of 1958, and for the period January through November of 1959 the percentage increase averaged 10 percent. Retail sales, too, have generally exceeded those of 1958 although sales in November barely equaled those of November 1958. This was due perhaps to the severe weather conditions prevailing during that month. The December retail sales picture seems to have improved slightly based on mid-December reports from department stores.

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Perhaps the most important single economic indicator for the district is the series on employment in nonagricultural establishments. This series has registered gains during the January through October period, averaging 1.7 percent per month over the same period a year earlier. Figures for Minnesota based on preliminary data show the increase in November to be about 1.3 percent. For the country as a whole the improvement in total employment and the decline in unemployment has been more favorable than it has in the Ninth district.

Employment in district construction work was particularly large during the first seven months of 1959 but tended to slacken somewhat since late August as a result of growing steel shortages. It is perhaps worth mentioning that even though the steel strike has been temporarily ended, much mining and construction activity faced a rather quick return to idleness because of climatic factors.

Demand deposits at all district member banks, which earlier in 1959 registered advances over 1958, have turned down in recent weeks. This is due, perhaps, to falling farm incomes more than any other single factor. On the other hand, outstanding loans and discounts have continued high in relation to year-ago levels—up 11.1 percent on a cumulative basis through November, with November itself showing a 12.4 percent increase. A delayed payoff in farm loans in the important corn and soybean producing areas of the district, caused by unfavorable harvesting conditions, has contributed to the relatively high level of outstanding loans at some country banks.

In general, the economy of the Ninth district has ended the year in a relatively healthy economic condition in terms of over-all business activity and employment levels. However, a smaller carryover of grains along with a USDA projection of further decline in farm prices and income suggest that the district economy may continue to lag the rest of the economy in the first part of 1960.

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

CONSTRUCTION TRENDS

In the Ninth district as well as in the nation, the rise in construction activity during 1959 was one of the major forces behind the general economic expansion. Industrial and commercial building was quite closely correlated to the general economic recovery and expansion until steel shortages developed. However, the rise in home building preceded the general recovery and began to taper off in the latter half of 1959. Thus, the volume of activity in housing again tended to move inversely to the general business cycle.

One indicator of the rise in construction activity during 1959 is the increased number of workers employed on construction projects. In the Ninth district, the seasonally adjusted index of construction employment rose substantially from 140 percent of the 1947-49 base period in January 1959 to a high of 147 percent in August. In July and August, generally the peak months in this district, approximately 115,000 workers were employed. This was 13,000 more than in the same months of 1958 and represents an increase of 13 percent for the industry.

Residential building was an important part of construction activity in the district during 1959. The year began with a boom in home building. A relatively large number of houses were finished and many new starts were made during the winter. The number of new dwelling units authorized by building permit rose sharply in March and then to a peak for the year in April. Although residential building continued at a high level through the first half of the year, the gradual tightening of terms on mortgage loans and a slowly rising saturation in the new housing market led to a tapering off in the number of new units authorized by permit during the latter half. The usual surge in housing starts

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1960 outlook for the nation's farmers

The U. S. Department of Agriculture forecasts lower net incomes for the nation's farmers in 1960. A drop of 7 to 8 percent is expected from the estimated $11.2 billion net farm income realized this year. This will place net farm income in 1960 well below the $13.1 billion reached in 1958.

Farm product prices in 1959 averaged about 4 percent below a year ago, mainly because of lower prices for hogs, broilers and eggs. USDA analysts expect the average level of agricultural prices to exhibit further weakness in 1960. Their forecast is based on lower anticipated prices for meat animals and modest reductions in the price support levels for some commodities.

Price and income reductions are foreseen for agriculture despite an expected stronger demand in the coming year. Rising business investments, increased consumer incomes and expenditures, a growing population, and a strong foreign market for U. S. farm products are the favorable demand factors cited for 1960.

This situation of a favorable demand and yet lower prices and incomes is not new in agriculture. The industry has faced this situation a good deal of the time since the early 1950's. Agricultural product supplies have been so burdensome over these past years that prices have not responded to the very favorable demand developments.

Production

The 1959 total output of crops and livestock products combined is expected to set another record, slightly above the level reached in 1958, and one-fourth more than the 1947-49 average. U. S. crop production this year is expected to nearly equal the record of 1958 in spite of less favorable weather. Average yields declined this year compared with 1958, but some acreages idled under the Acreage Reserve Program in 1958 were returned to cultivation. Barring widespread drouth, crop output in 1960 is expected to continue at a high level, and add further to the existing heavy supplies of wheat and feed grains.

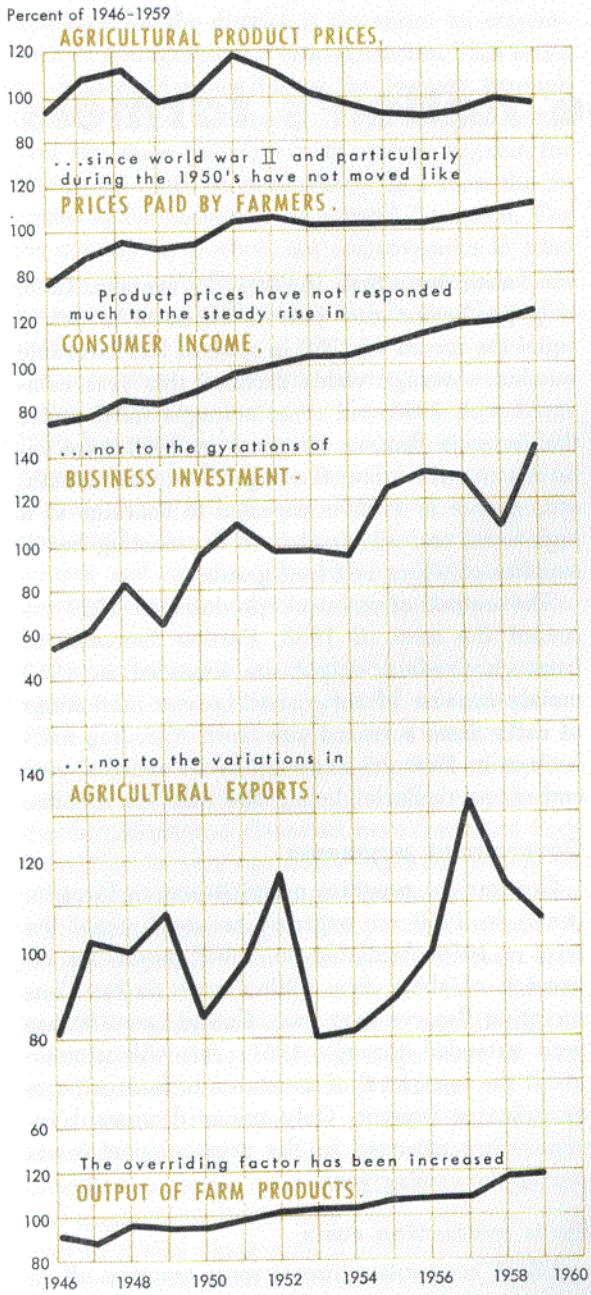
The output of livestock products in 1959 exceeded the level of 1958. Further increases in livestock product output are expected in 1960 mainly because of anticipated heavier marketings of cattle from a record size herd. And, hog marketings in 1960 are expected to be above a year earlier, particularly during the first six months.

Government payments

Government program contributions to farm incomes in 1960 are expected to about equal the level of 1959. Available funds will permit an expansion of about five million acres in the Conservation Reserve next year. Public Law 480 has been extended through 1961; this will provide about the same level of assistance to farm exports as exists at present. Only minor downward revisions are expected in the price support levels during the coming year.

Farm production costs

USDA economists foresee some tapering off in the rise in farm costs. The prices-paid-index of 1959 is expected to average 2 percent above the



Source: USDA

level of 1958. But during the last four months of 1959 the index has averaged less than 1 percent above a year ago. Most of the decline in farm costs during 1959 has been due to lower prices for farm-produced items. In contrast, farm machinery, motor vehicles and building materials have increased approximately 2 to 4 percent while interest charges, taxes and farm wage rates were noted to be up even more. The USDA expects these cross currents in the prices paid by farmers to continue in 1960—lower prices for farm-produced inputs and further price advances in other lines.

Commodity highlights

Beef cattle—Cattle numbers have been increasing cyclically for two years and will probably continue to expand for a few more. A distinguishing feature of the current expansion in cattle numbers has been the record increases in steer and heifer numbers. Thus, the USDA concludes that with the more rapid buildup in young stock for slaughter, the downward price movements in this cycle can be expected earlier than has been the case in the past.

The spring peak price patterns of 1958 and 1959 are not expected in 1960. Little chance of any seasonal price rise is seen before summer because of anticipated heavy marketings. The level of cattle slaughter in prospect for next year indicates slowly downtrending prices generally. And, prices of cows and feeders will likely show greater declines than fed cattle.

Hogs—Hog marketings rose substantially in 1959, causing the average price for the year to drop to about $14.50 per hundredweight; this is more than $5.00 below the level of 1958. An increase in the fall farrowing intentions this year of 7 percent is expected to hold hog marketings up throughout the first half of 1960. Thus, USDA economists foresee little chance for any seasonal price rise in the early months of 1960.

On the basis of spring farrowing intentions, the USDA indicates that the spring pig crop may be down a little from a year earlier. This being the

case, hog prices in the last half of 1960 are expected to equal or slightly exceed the levels of the last half of 1959. For the year 1960 as a whole the USDA forecasts a lower average hog price than was realized in 1959.

Dairy—Milk production leveled off in 1958 and declined slightly in 1959. Decreased production combined with increased consumption of most fluid products has resulted in slightly higher milk prices received by farmers. This favorable situation is expected to continue into 1960. However, contrary to present appearances the dairymen's biggest long-term problem will be one of surpluses.

A sequence of events, of a temporary nature, have caused the current brightness in the milk production-consumption balance picture. First, favorable beef prices dictate a heavy culling rate in 1958, and although the rate of cull declined somewhat in 1959 it continues relatively heavy. Second, unfavorable pasture conditions in the important dairy states in the Northeast and in the north central states cut into milk production during the past summer. The drop-off in the rate of increase in production per cow during the summer and early fall may also reflect in part a shift toward more fall freshenings.

Turkeys—This was a year of record turkey production. However, production increases were concentrated in the light breeds and thus, pressure on prices has been greatest in the lighter birds. Prices for heavy tom turkeys have been more favorable.

Thus far, farmers' intentions to retain breeding hens indicate a 22 percent increase over last year in the heavy white breeds to be on hand January 1, 1960; a 9 percent decrease in Bronze hens; and a 16 percent decrease in Beltsvilles.

If the indicated breeding hen intentions are realized the 1960 crop will about equal the crop of 1959 and prices may nearly equal the average of this year. However, favorable prices for heavy tom turkeys may induce a further expansion in Bronze turkeys than indicated in early intentions. This being the case, some downward price pressure may develop in the coming year.

Eggs—Reduced production of eggs appears very likely in the first half of 1960 as a consequence of a very sharp price-cost squeeze during 1959. The egg-laying flock in early 1960 is expected to be 3 to 4 percent smaller than a year earlier. Because of a smaller flock, egg production in the first half of 1960 is likely to be below 1959. In the second half of 1960 output will be affected by the availability of replacement pullets.

Per capita consumption of eggs has been declining in recent years, and with supplies of red meats and other substitute foods expected to increase in 1960 there is little likelihood that the demand for eggs will strengthen. However, with somewhat reduced supplies, some price strength is expected particularly during the first half of the year.

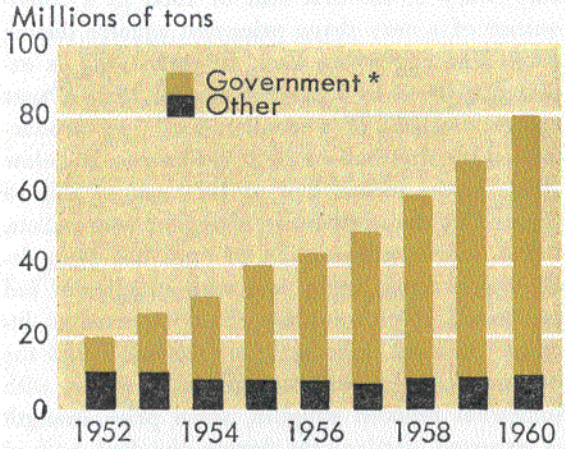
Sheep and lambs—The USDA expects the number of sheep and lambs on farms January 1, 1960 to be up about three-fourths of a million head. Lower lamb prices and poor range conditions in the Northern Plains were not conducive to flock expansion this past year. Thus, the expected increase in the size of the flock is only about half as large as the expansion realized in 1958.

This year's lamb crop was 2 percent larger than the crop of a year ago. USDA analysts anticipate a small gain in lamb and mutton production for 1960, but it will not be sufficient to produce a strong price depressing force. Sheep and lamb prices in 1960 are expected to average close to or only slightly below prices this year.

Feeder lamb prices have declined relative to slaughter lamb prices this fall compared with last. With an outlook for lamb prices appreciably equal to a year ago, the prospects for returns on lamb feeding are improved over a year ago.

Feed supplies—Total supplies of feed grains and other concentrates for the 1959-1960 feeding year have set a new record at 265 million tons. This is the seventh consecutive year in which total feed supplies have increased. The 1959-60 supply level is nearly 100 million tons above the level at the beginning of the seven-year rise.

Feed grain carryover



*Under loan or owned by CCC.

The 1959 feed grain crop totaled 167 million tons, nearly 10 million tons more than the previous 1958 record crop; the 1959 crop was produced on a larger acreage, yields were high, but did not reach the record levels of 1958. The USDA expects that the carryover of feed grains into the 1960-61 year to be nearly 80 million tons, one-fifth larger than the record level of this year. Feed grain prices are expected to average a little lower in 1959-60 than in 1958-59 in view of a record feed grain production and carryover.

The total tonnage of high protein feeds available for the 1959-60 feeding year is expected to be a little larger than the supply of last year. Since livestock numbers are higher this year, high protein feed prices during the 1959-60 feeding year are expected to average near the level of prices during the past year.

Wheat—Although the 1959 wheat crop is nearly one-fourth less than in 1958, it is still somewhat higher than anticipated domestic and export needs of wheat for fiscal year 1959-60. Accordingly, total carryover of wheat on July 1, 1960 is expected to exceed the record carryover on hand July 1 of this year. The minimum support price for wheat in 1960 has already been announced at $1.77 per bushel; this is 4 cents below the support level this year.

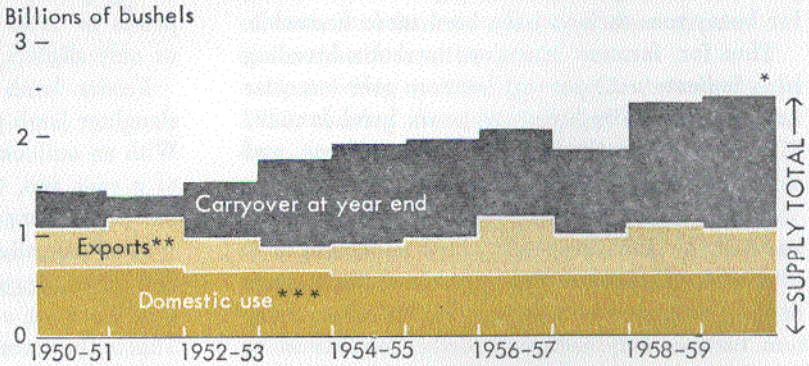
Ninth district farm income in 1960

Receipts from farm marketings in the Ninth district for the first three months of the 1959-60 crop year were 17 percent below a year ago. In contrast, receipts from marketings for the nation as a whole were down about 7 percent.

While the nation's total crop output nearly equaled the 1958 record, the district's farmers harvested a small grain crop which was a fourth to a third below last year. And the district's 1959 corn crop which approximately equaled last year's was produced on an acreage one-fifth larger than the corn acreage of a year ago.

Minnesota—While the nation's farmers experienced a 15 percent cut in net incomes this year compared with a year ago according to USDA estimates, Minnesota farmers likely realized a some-

Wheat supply, domestic uses, exports and carryover



*1959 data are September estimates.
**Includes flour milled from domestic wheat only.
***Includes territorial and military food uses.

what greater income decline. This was mainly because of the fact that hogs and poultry products, products which suffered substantial price cuts, constitute a more important part of Minnesota's agriculture for the country as a whole. Also, crop production was somewhat dampened in Minnesota in contrast to the production realized in the United States.

On the other hand, Minnesota farmers may fare better in 1960 than the nation's farmers. First, the prospects pricewise for poultry and dairy products are brighter than the general price picture, and these are products of more importance in Minnesota than in the total nation's farm economy. Also it is not unreasonable to expect improved crop output in Minnesota next year. For example, the 1959 corn yield in Minnesota at 49 bushels was more than 10 percent below the average yield of the last five years.

North Dakota—Because of substantial cuts in crop production, North Dakota farm incomes will decline more than the 15 percent cut expected in U. S. farm income this year. For example, 1959 income from wheat in North Dakota, which has accounted for approximately 40 percent of the total cash receipts of North Dakota farmers over the past several years, is down approximately 40 percent from the record production of 1958. Other small grain crop incomes which account for another 20 percent of North Dakota income were similarly reduced this year.

In 1960 North Dakota crop income may be expected to improve through increased yields. An estimate of the expected improvement was made on the basis of expected price and average yields. Applying the price reduction indicated by the reduction in the 1960 wheat price support level to 5-year average yields, North Dakota wheat income may be expected to increase 17 percent from the level of 1959. Similar improvements in other small grain income may be achieved.

North Dakota's income from cattle and calves and hogs constitutes about the same proportion of total farm income as for the nation. And thus, the declines in these incomes expected for the nation will have application for North Dakota.

South Dakota—This year South Dakota farmers experienced very sharp cuts in crop production and as a result, their incomes are expected to show much greater declines than experienced by other U. S. farmers. South Dakota wheat farmers realized a reduction of about 66 percent in wheat income this year compared with 1958. Similar income cuts were experienced in other small grains. Corn income was reduced less than small grain income, but was off approximately one-fourth from a year earlier. Crop incomes have accounted for approximately 30 percent of the state's cash receipts from marketings over the past several years.

Livestock income in South Dakota, which constitutes 70 percent of the state's receipts from farm marketings, may have fared better than in the nation as a whole this last year. Cattle and calves in South Dakato account for nearly twice as great a portion of the total cash receipts in South Dakota as in the United States and incomes from cattle and calves were favorable this past year. On the other hand, hogs in South Dakota account for about 16-18 percent of the total receipts from farm marketings, compared with 10-12 percent in the nation, and hog income was substantially below the level of a year ago.

South Dakota's income in 1960 should improve —sometimes the only direction to move is up— this is essentially the case for the state's crop income. Estimating South Dakota's wheat income for 1960 on the basis of the announced price support reduction and 5-year average yields, wheat income may increase by as much as 82 percent next year. Similar increases may be experienced in incomes from other small grains. Corn income likewise, being substantially below average yields this year, stands good chance for improvement.

Reduced incomes from cattle and calves, and hogs expected in 1960 are going to cut into South Dakota's incomes more than in the United States as a whole. And South Dakotans will not benefit

as much from the expected favorable outlook for dairy and poultry products as will the nation's farmers because these commodities are of lesser importance in South Dakato.

Montana—Farm income in Montana in 1959 relative to the nation was bolstered by a favorable income from cattle and calves. Income from cattle and calves accounts for twice as large a portion of income in Montana as in the United States. On the other hand, farm income in Montana was cut relative to the nation because of reduced crop production. For example, receipts from the sale of wheat constitute approximately 40 percent of total cash receipts in Montana, and wheat income was cut approximately one-third in Montana. The winter wheat crop was down from 1958 approximately one-third mainly because of a reduction in acreage; however, winter wheat yields were also down about 10 percent. Montana's spring wheat income also suffered similarly but this was due to a reduction in yields.

In 1960 Montana farmers can expect lower income from cattle and calves. In addition to depending on cattle and calves for about twice as large a proportion of their income as the farmers of the nation, Montana farmers market their cattle mainly as feeders, whose prices are expected to decline relatively more than are fed cattle in the coming year, according to the USDA. This price relationship is a normal one during a period of declining cattle prices.

Winter wheat yields in Montana, even though reduced from 1958, exceeded average yields by 10 percent. Thus, it would be hazardous to expect the per acre winter wheat income to increase in the face of lowered support prices. Spring wheat yields were off substantially, and even with a price decline certain spring wheat income per acre may increase 25 percent, assuming average yields are achieved. Such an improvement in spring wheat yields and income would have a substantial effect on Montana's total farm income in view of the fact that spring wheat last year accounted for nearly three-fifths of the total wheat acreage.

CONSTRUCTION TRENDS . . .

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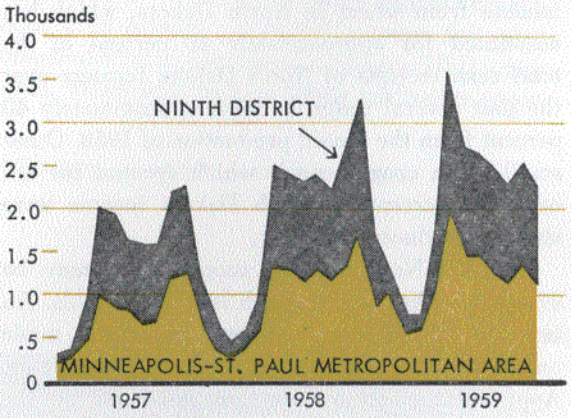
in this region during September and October before inclement weather sets in did not occur this fall.

In contrast to the declining trend this year, district residential building in 1958 expanded throughout the building season. The peak in the number of dwelling units authorized by permit occurred in October.

The volume of most types of nonresidential building expanded during 1959 until shortages of steel and steel products developed. It slowed down the progress of some projects and caused the postponement of new ones. Because freezing temperatures set in before steel again became available, some district projects were postponed until the spring of 1960.

Number of dwelling units authorized by building permits



The amount of contracts awarded for industrial, commercial and public building during the first 10 months of 1959 fell short by 7 percent of the total for the comparable period in 1958. The amount of heavy engineering contracts awarded for public works and utilities during the same period was down by 21 percent. A breakdown of

these awards made in Minnesota, North Dakota and South Dakota indicates that the decrease occurred in awards let by federal government agencies for highways and river development. Aside from the decline in such government contracts, the amount let in the public utility field was up sharply.

According to several Twin Cities architects the number of projects now in the planning stages is above a year ago, which tends to suggest a favorable outlook for nonresidential construction in this district for the spring of 1960.

UNUSUAL DEPOSIT DECLINE

Total deposits of Ninth district member banks declined $54 million in November. Though this amounted to a decline of only 1 percent, deposits ordinarily increase in November. In fact, in all but one other November since 1951, deposits of district member banks have increased. As the result of unseasonal deposit losses in October and November, deposits on the last reporting date in November were below those on the like date a year earlier for both reserve city and country member banks. For country member banks this event has not occurred since 1949. For all district member banks, deposits have not fallen below year-earlier levels since 1955.

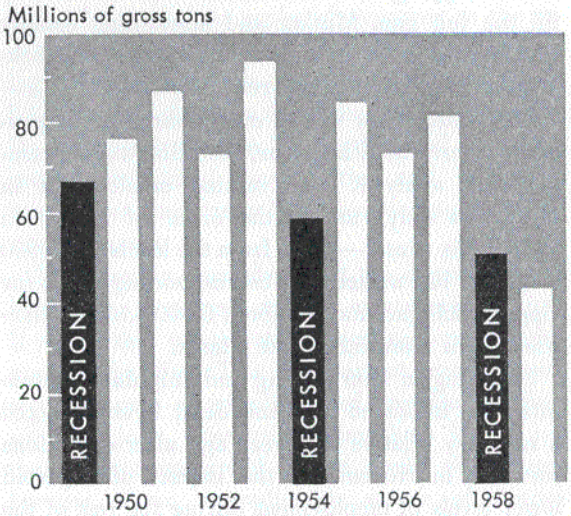
In contrast to deposit losses, member banks in this district experienced further increases in their loans in November, amounting to $17 million for the month. As a result, $17 million in securities were liquidated from portfolios of district member banks.

Banks have not yet had to match their deposit losses with sales of securities or a cutback of bank loans because they have borrowed funds from other banks outside the Ninth district and from their Federal Reserve Bank on a temporary basis. Average borrowings per day from the Ninth district Federal Reserve Bank climbed to $66 million during the last half of November, an increase of $42 million over the average for the first half of the month. During the last half of November, country member banks borrowed 3 percent of their required reserves from the Federal Reserve Bank of Minneapolis. Reserve city banks got almost 34 percent of their requirements in this way. This current borrowings level is significant in terms of the amount and in view of the fact that banks in the district ordinarily cut their borrowings at this time of year. Not since the last half of May 1957 have banks in the district borrowed as much as they did during the last half of November this year, and since the start of keeping monthly data in 1932 district banks have never borrowed this much in November.

IRON ORE SHIPMENTS LOWEST SINCE DEPRESSION YEARS

The last cargo of iron ore from the Duluth-Superior port in 1959 left on December 20—a record late date. The 3.1 million tons of Lake Superior district iron ore moved during December set another record, bypassing the previous high of 1.6 million tons reached in December of 1956 (another strike year).

Annual iron ore shipments from Lake Superior sources



Source: American Iron Ore association.

Total tonnage moved this year, however, was hard hit by the 116-day strike and reached only about 43 million long tons, well below last year's relatively poor 51 million tons.

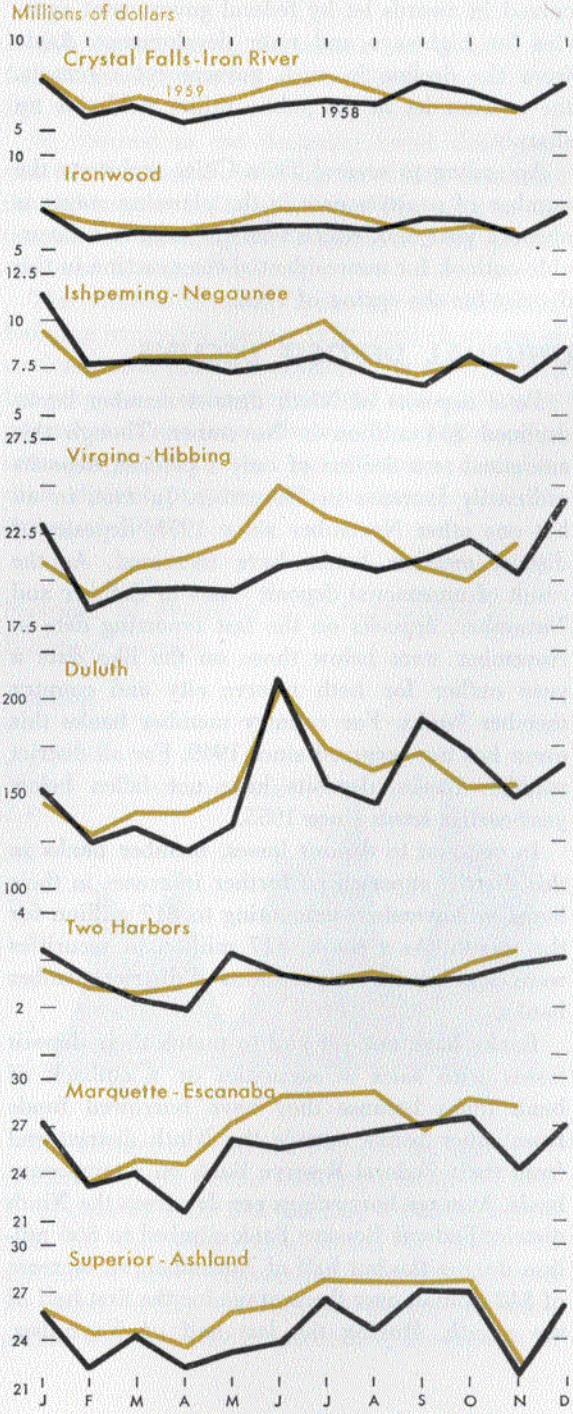
The cold weather which occurred shortly after the Taft-Hartley injunction went into effect on November 7 aroused some fears that limited end-of-the-season lake shipments would cause serious iron ore shortages this winter. But mild weather during December assisted the intensive effort to build up lower lake stocks. As a result, ore supplies available to steel mills now seem generally adequate for near-capacity operations all winter, though some inland mills may find it necessary to draw more heavily on imported ore than ever before. With a high rate of steel operations, total iron ore stocks at U. S. steel-making plants might dip below 25 million tons by the end of next April, yet this level is comparable to the level reached in 1957.

While the end of lake shipping will not alter operations at steel mills, activity will be affected in the iron ranges of Minnesota, Wisconsin and Michigan. Many mines and ore treating plants close down. Aside from minor all-rail shipments, ore movement activity comes pretty much to a halt. Stripping and maintenance operations help fill the job gap. Mining and stockpiling usually continue at underground mines, although stockpiles at some are already relatively large.

The outlook for winter employment seems generally poorer than last year, according to state employment analysts. Iron mining employment in Minnesota may run on the order of 14,000 to 15,000 this winter—down from the levels of 16,000 to 17,000 last winter. The corresponding figure for Upper Michigan may be about 5,400 which is likewise down from 5,800 last winter.

Spending in iron mining and shipping communities, as indicated by bank debit figures, staged a recovery relative to a year ago after operations resumed in November; the impact of expected lower levels of employment during the rest of the winter in the range areas remains to be traced out.

Bank debits at selected mining and shipping centers, 1959 through November compared with 1958



Discounting with the 'Fed'

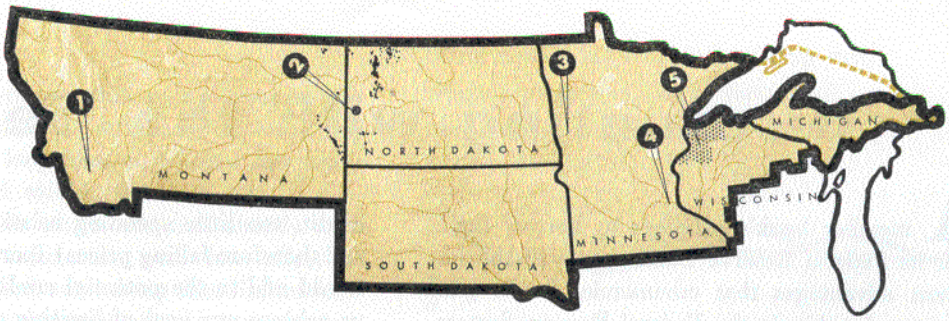
A member bank's privilege to borrow funds from its Federal Reserve Bank is one of the important advantages that commercial banks gain from membership in the Federal Reserve System. In the early years of the Federal Reserve, banks borrowed extensively by rediscounting customers' loans with their Federal Reserve banks. To be eligible for rediscounting, such loans had to satisfy a number of specifications required by the Federal Reserve Act. Today, however, member banks are permitted to borrow from our bank on any satisfactory collateral. Ordinarily they simply use part of their government securities as collateral. These securities are often already at our bank, held in safekeeping for a member bank.

The discount rate is the basic interest rate at which member banks may borrow from their Federal Reserve Bank. The board of directors of each of the twelve regional Federal Reserve banks is authorized to raise or lower the discount rate. But such changes are subject to review by the Federal Reserve Board in Washington. The Federal Reserve Board, which is the chief governing body of the Federal Reserve System, announces all discount rate changes and determines on what date they become effective.

When member banks borrow from our bank they acquire additional funds. This permits them to lend more funds than they otherwise could. Now such credit expansion might be desirable or undesirable—depending on circumstances. If the country were experiencing inflation (too much credit, too much spending relative to production, and therefore rising prices) then increased discounting would add to the potential supply of credit at a time when it should more properly be reduced in order to limit inflation. In such circumstances, the discount rate is often raised to check the growth in discounting. If, on the other hand, the country were experiencing deflation (too little credit, too little spending relative to production, and therefore falling prices) increased discounting would add to the potential credit supply and help us achieve our goal of limiting deflation. In these circumstances, the discount rate is often lowered.

Though discount policy still has significance as a general credit control, it has been overshadowed by Federal Reserve purchases and sales of securities (open market operations) which permit the Federal Reserve to determine within a narrow range the amount of member bank reserves. As a result, the role of discounting today is an 'ace in the hole' for the member banks. Discounting is an 'ace in the hole' in this sense: member banks, as a privilege of their membership in the Federal Reserve System, are temporarily permitted to borrow funds subject to the examination of the Federal Reserve Banks. When member banks experience a large unexpected drain of dollars they can borrow. They are thus not immediately forced to liquidate assets, possibly at very unfavorable terms, in order to get funds. Such funds might be needed to make sound home-town loans. Or they might be needed to replenish reserves as the result of a drain of funds caused by customers having written a lot more checks and/or deposited a lot fewer checks than could have been expected. Discounting is thus an 'ace in the hole' that helps protect individual communities and individual banks from temporary but otherwise possibly disastrous events.

In summary, consider what the discount privilege means to a bank and the customers it serves. It means that unpredictable localized credit shortages can be offset. This is important because credit supports part of spending and spending in turn supports jobs. Discounting can help banks and their customers avoid undue credit curtailment because of an unpredictable streak of deposit losses or unusually large credit demands.



Economic Briefs

1. Montana iron ore deposit

Mineral rights to the Carter Creek iron ore deposit near Dillion, Montana have been purchased by the North American Utilities corporation to provide ore for a proposed steel plant in western Canada. The agreement provides for payment of $600,000 this year and an additional $200,000 on completion of milling facilities or in five years, whichever is the earliest. Tests on Carter Creek ores indicate that concentration will be necessary. The grade of the deposit is about 25 to 30 percent acid-soluble iron, the major portion of which occurs in magnetite.

2. Wildcat well flows 1,500 barrels in N. D.

The outstanding discovery of the year in the Williston basin was made in December in southern McKenzie county, N. D. Here, a Shell-N.P. strike flowed at a rate of 1,500 barrels of oil and 65 barrels of water per day through a half-inch choke from about 9,400 feet of depth. The formation tapped is the same as that producing along the Nesson anticline some 35 miles to the northeast. Significance of the discovery lies in its location in the center of a large untested area central to the basin yet distant from surrounding known fields (indicated on the map).

3. Potato plant built in Barnesville, Minn.

Production is underway at the $1 million potato-processing plant in Barnesville, Minn., in the state's potato-growing country. The 150,000-square-foot plant is operated by Gateway Flakes, Inc. The company's initial product will be instant mashed potatoes. When the plant begins full operations, it will use 120,000 pounds of raw potatoes a day to produce 700 cases of instant potatoes. Production marks the end of a year of research carried on by the company. The plant, located on a 50-acre tract, consists of a main manufacturing building and three warehouses. It has its own water supply capable of furnishing 1,000 gallons daily.

4. Hotel planned for TC airport

A $1 million hotel and motor lodge is planned for Minneapolis, just south of the Minneapolis-St. Paul International airport. The 70-room structure will be the first step in a projected 300-room development. Bids will be let this winter, with construction to start as soon as the frost is gone. Low, Inc., will build and own the hotel, but it will be leased to a national franchise. As soon as the highway program is settled, Low plans to double the hotel's size, and when the airport terminal is in full use, the hotel will be expanded to 300 rooms.

5. Mineral study in northern Wisconsin

The Bear Creek Mining Company, the exploration subsidiary of Kennecott Copper corporation, is conducting a mineral exploration program in northern Wisconsin. The firm has a five-year option to conduct explorations in the counties of Bayfield, Douglas, Washburn and Burnett.