

even though the rate of improvement may have slackened somewhat in recent weeks. Lumbering in western Montana is currently reported back on a normal schedule of operations as is copper mining and its related industries. Employment in non-agricultural industries continued to exhibit a modest increase in recent weeks. Increased employment is especially evident in manufacturing, among construction workers on highway and heavy engineering projects, in residential building, and among the special building trades involving a large share of subcontract work. Nevertheless, the increase in employment has done little more than offset normal additions to the labor force; hence district unemployment remains at a relatively high figure.

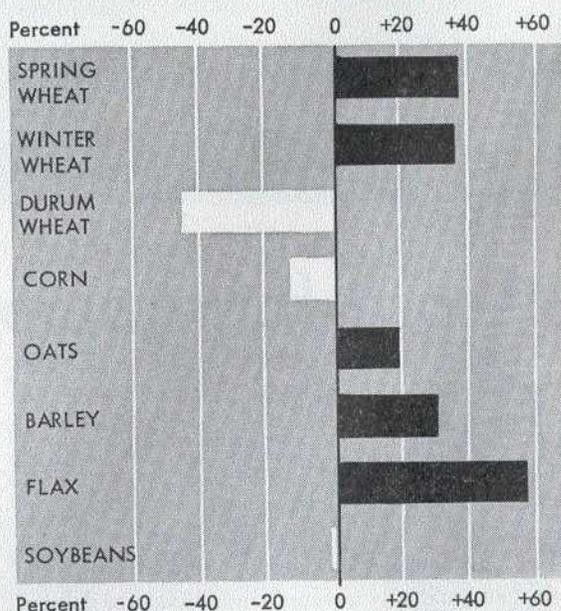
Record district farm income, plus more people working with some increase in weekly earnings, suggests that personal incomes have reached a new high. This could provide the basis for a heavy volume of Christmas shopping sales in the next several weeks. Currently, however, and in very recent weeks, department store sales have shown some hesitancy and on the whole have been disappointing.

Still another evidence of improvement in the district's economic picture is the current strong demand for bank loans. This is particularly evident at the city banks where the increase in loan demand is large in comparison with a year ago. A strong demand for bank credit is particularly recognizable in real estate and commercial-and-industrial categories. Borrowing of member banks at the Federal Reserve Bank of Minneapolis has also increased in recent weeks, particularly at the reserve city banks.

The increase in the discount rate from 2 to 2½ percent at all Federal Reserve banks in recent weeks is recognition that a broadly based recovery in the business cycle is underway and that caution is desirable to prevent an inflationary spiral from emerging as it did back in 1955-56. Actually, the discount rate had fallen behind the rates on short-term Government securities and a

technical readjustment of the discount rate was in order. Currently, however, prices appear relatively stable. Excess production capacity in our economy plus a continuing relatively high level of unemployment tend to act as a brake on inflationary price developments in the near future. Furthermore, there is no current indication of any inflationary build-up in inventories or an expansion in expenditures for new plants and equipment.

1958 District crop production, change from 1957



Source: USDA Crop Production Report, November 1958.

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

DISTRICT BANK LOANS AT RECORD HIGH

Loans of member banks in the Ninth Federal Reserve district increased \$18 million in October to a record high of \$2,087 million. Loans have now increased each month for the last eight months. From January 29 through September 24

member bank loans had risen 7 percent at district banks in contrast to only 2 percent at banks in the nation as a whole. As of September 24, the dollar amount of loans at 19 major banks in the district had advanced \$90 million since February when district loan volume began to turn upward. The loan expansion of district country banks during this period was only a little over half that of the city banks. But in October, loans of country banks increased \$20 million while city bank loans fell \$2 million.

Loan volume for the weekly reporting banks in the nation reached a low point on August 13. Since that time through November 5, loans other than loans to banks increased over \$1 billion at the city banks of the nation, a change of 2.3 percent. In contrast, loans other than loans to banks increased 1.9 percent at district city banks during the like period.

During the weeks from August 13 through September 17, the principal stimulant to district city bank loan growth was a 9 percent increase in commercial and industrial loans at major banks in the district. The comparable rise in the volume of these loans at city banks in the entire nation was only 3 percent. But from September 17 through November 5 commercial and industrial loans of the district city banks have dropped \$20 million or 4 percent in contrast to a comparable decline of less than 1 percent at city banks in the entire nation.

1959 AGRICULTURAL OUTLOOK

Farm incomes are likely to be lower in 1959. A recent U. S. Department of Agriculture estimate indicates that U. S. farm operators are expected to realize net farm incomes next year which are 5 to 10 percent below the incomes of this year. The expected decline in farm income will be from the highest level realized in the last five years; the 1958 level of farm income is 20 percent above the previous year.

The USDA forecast of lower income is based

on three major points: (1) anticipated lower average agricultural prices resulting from heavy supplies of commodities (2) a reduction in government payments to farmers caused by a termination of the Acreage Reserve program of the Soil Bank, and (3) some higher production costs.

The expected drop in farm income is anticipated in the face of a strong and improving demand for farm products. Domestic demand will reflect an improving nonfarm income situation; nonfarm incomes may well be at record highs in 1959. Foreign purchases likewise are expected to hold at relatively high levels.

Agricultural commodities abundant

Record supplies of agricultural commodities are expected to exert a downward pull on agricultural prices during the coming year.

Crop output in 1958 exceeded any previous year by more than 10 percent. This record crop production was achieved on the smallest harvested acreage in 40 years. The excellent growing season boosted yields to record levels; 1958 yields were 12 percent above 1957 and 42 percent above the 1947-49 average. A large portion of this record crop will move to market in 1959. Barring a widespread severe drouth, crop output in 1959 will likely continue at high levels.

Improved technology in crop production has been pushing yields upward at the rate of 4 percent per year for the last decade. And, productivity gains continue unabated.

In addition to the upward pressure of technology on crop output, the 1959 crop may be expanded through larger crop acreage. The USDA estimates the discontinuance of the Acreage Reserve program of the Soil Bank may return to use some 17 million acres which were previously withdrawn from production of wheat, cotton, rice and tobacco. Also, the revised cotton and corn programs will likely bring in additional crop acres.

The heavy outpouring of crops in 1958 is expected to boost the inventories of the Commodity Credit Corporation to record levels. The USDA estimates that stocks of wheat and feed grains will

rise to new highs, but a reduction in the cotton inventory is expected.

Feed and livestock

Livestock production will continue to rise next year. The enormous supplies of feed grains have held feed prices down relative to livestock and poultry products, and this exerts a strong pulling force on livestock and poultry expansion.

Hogs—Hog production is on the way up and lower prices are expected soon. Fall farrowings in 1958 were estimated to be 14 percent above last year, and the early spring pig crop may show an even larger increase compared with a year ago. Hog marketings beginning in the next few months are expected to increase substantially and lower prices will result. The normal spring advance in prices will be followed by a fall decline, the severity of which will depend on the extent of the increase in spring farrowings, and particularly the late spring farrowings. An increase of near 20 percent is expected in the early spring farrowings; this, however, may partially reflect a further shift to earlier farrowings and not be an accurate measure of expansion in hog production. However, if the total pig crop is up nearly 20 percent the per capita pork supplies in 1959 will be near 1955 levels when the average U. S. farm price for live hogs fell to \$10.60 per hundred pounds.

Cattle—The cattle inventory on January 1, 1959 may be up 2 to 3 million head from a year ago, according to USDA estimates. The buildup of herds is expected to continue during the year with the result that slaughter may change little from 1958. Since cattle slaughter and beef output are not expected to change greatly, cattle prices in 1959 are likely to remain near 1958 levels; however, fed cattle prices during 1959 may to some extent be influenced by seasonally heavy supplies and lower prices for pork and poultry products. If the current buildup in cattle proceeds too rapidly and too far, producers may face serious price trouble later.

Sheep—Sheep production is increasing and it may continue upward, particularly if weather in

the range country remains favorable. The National Wool Act price incentives also encourage expansion. Prices of sheep and lambs will be influenced by the general level of livestock prices, and some decreases can be expected in the future. For 1959, only a small drop in prices seems likely.

Milk—Total milk production declined slightly in 1958 following five years of continual increases; only a small increase in output is expected in 1959. Milk production and consumption are expected to be more nearly in balance in 1959 than during any of the last six years. However, the USDA predicts production will likely continue above commercial use, and prices paid for manufacturing milk and butterfat will continue at or near support levels in 1959.

Poultry—Profitwise, poultry producers fared better in 1958 than they did a year earlier, and it is expected that they will respond by increasing output in 1959. Heavier marketings and lower prices for eggs, broilers and turkeys are expected in the months ahead. The increase in the number of potential layers already on farms practically insures heavier egg production next year. For poultry meat, the prospects for increased production are less certain as most of the birds to be produced in 1959 are not yet hatched. However, the large number of breeder hens on hand and in prospect, and the long-term expansion trend in poultry meat production suggest expansion.

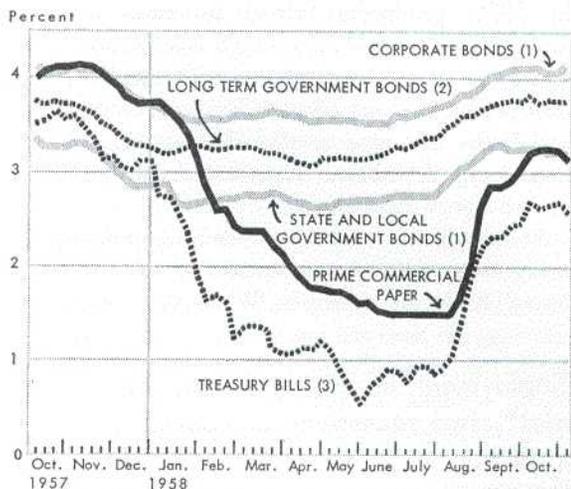
Farm costs expected to rise

USDA forecasts indicate that production costs are likely to account for a larger portion of the gross income in 1959 than was the case in 1958. Persistent increases in the index of prices paid by farmers continued in 1958; the average for the first ten months was 3 percent above a year earlier. USDA economists expect further increases in wage rates, interest, taxes, insurance costs and in the prices of some industrial items next year; they indicate that feed and seed prices are likely to be lower. Feeder and replacement cattle prices in 1959 are expected to average near 1958 levels.

MONEY MARKET TIGHTENS AGAIN

Money market interest rates have recorded very sharp decreases and increases since the onset of the recession in 1957. Business activity reached a high point in the third quarter of 1957. An associated surge in the demand for credit pushed up money market interest rates to their highest levels since the early 1930's. Then business activity and the demand for funds slackened in the fourth quarter of 1957, and interest rates fell rapidly as indicated on the accompanying chart of money market yields.

Money market yields October 5, 1957 to November 1, 1958



¹ Moody's Aaa bonds.

² Bonds maturing in over 10 years.

³ 3-month Treasury bills, market yields.

During the recession, divergent changes in the flow of credit to the private and public sectors of the economy characterized the money market. Private borrowing dropped. Lack of profitable uses for funds and the existence and the threat of unemployment dampened credit financed business and personal spending. To illustrate, business loans of major banks dropped from a \$32 billion peak in 1957 to \$29 billion in May of this year. Corres-

pondingly, bank rates on short-term business loans in the larger cities dropped from an average of 4.85 percent during the first 15 days of December last year to 4.17 percent during the first 15 days of June this year. Consumer credit dropped back from \$45 billion on December 31, 1957 to \$42.5 billion on March 31, 1958 in contrast to only a \$1.5 billion drop during the like period a year earlier. Comparable declines in most other types of credit also occurred, with mortgage credit the major exception.

Continued growth in public borrowing during the recession partly offset these changes in the private demand for credit. As a result of the recession on the one hand and growing military needs on the other, the federal government spent more than it received in revenues during the year ended October 31, 1958. State and local governments also increased their spending while their revenues declined as a result of the recession. But due to the depressed demand for funds by the private sector of the economy as well as an increased supply of funds, the cost of financing government debt fell sharply in the early months of the recession. The rate on Treasury bills, the most extreme case, fell from a high of 3.7 percent in October 1957 to .6 percent in May 1958.

Stepped up government spending, a slowdown in inventory liquidation and indirectly, easier money, contributed to a May upturn in the Federal Reserve index of industrial production. And reacting to generally more favorable economic prospects, businesses stepped up their demand for funds. Corporate bond issues picked up in February and have since risen so that the cumulative total for the first three quarters of 1958 ran ahead of the comparable figure of a year earlier. And recent growth in member bank commercial and industrial loans has occurred. Since these loans are often secured by inventories, the increase in commercial and industrial loans suggests that inventory liquidation which played such a major role in the recent recession may now have slowed further or perhaps even reversed.

A look at business conditions

The recent recession in this district has been centered primarily in mining and manufacturing. The extent of the recession in these industries is described in this article. On the whole, the recession in this district has been moderate. District construction, for example, has suffered little. The increase in publicly-financed projects has more than offset cutbacks made in the privately-financed ones. Home building has picked up sharply since last spring. Agriculture has been untouched. In fact, the rise in farm income this year has been an important prop to the district economy. Retail and wholesale trade with the exception of the automobile business, has held up well in most areas of the district. Financial institutions have adjusted easily to the changing conditions. Even in the mining regions where the delinquencies on mortgages and instalment loans rose materially, institutions, in most cases, arranged with borrowers to suspend temporarily repayments provided they had sufficient equities in the assets. If not, arrangements were made to sell the assets but this has been infrequent and has not depressed prices of houses, automobiles or other durable consumer goods in those areas.

Mining

The mining industry was the first to experience a recession in this district and it still remains the weakest spot in the recovery picture. Employment in this field during the recent recession declined decidedly more than in the recession of 1953-54 as may be observed on the accompanying chart. In 1958, during the iron ore shipping season, about 30,000 persons were employed in metal mining in this district as compared with about 40,000 the previous year—a decrease of 25 percent.

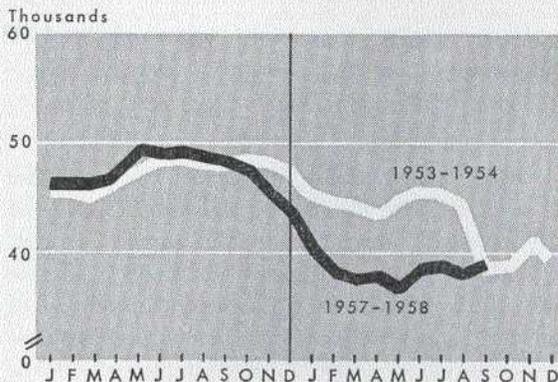
The mining and beneficiation of iron ore were curtailed sharply in 1958. There was a continuation of the reduction of shipments in the fall of 1957

which coincided with the start of the recent recession. Shipments made from the Lake Superior region in the current season through October aggregated only 48.3 million tons—down 40 percent from the tonnage shipped in the corresponding period of last year. Since the current shipping season ends early in December, the total tonnage this year may be under 55 million tons, the lowest since 1939.

In copper production, on the other hand, the curtailment preceded the general business recession. When the price of copper began to decline in 1956, producers turned to more efficient mining methods and closed high cost mines which had become uneconomical to operate. In 1957 district production was off over 5 percent from 1956, and in the first nine months of this year, production dropped another 8 percent from the same period a year ago.

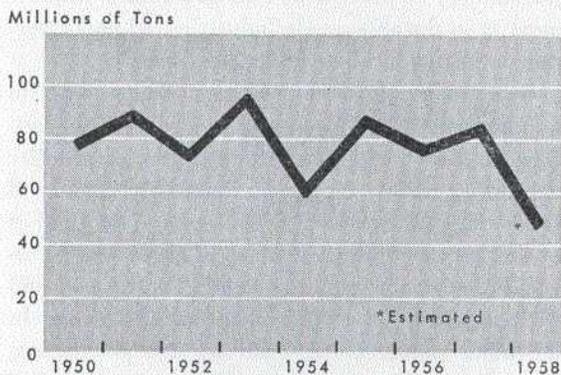
Economic recovery in the mining industry is being delayed by the accumulation of unusually heavy stocks of minerals. When the navigation

Employment in mining in the Ninth district*, two recessions compared



*Except district part of Wisconsin (figures unavailable).

Iron ore shipments from the Lake Superior district, by years



Source: Lake Superior Iron Ore Association.

season on the Great Lakes was opened last spring, stocks of iron ore at lower lake ports and at steel mills aggregated 32 million long tons which was nearly double the tonnage held at the opening of the navigation season in the spring of 1957.

The output of steel has risen steadily since last April with the exception of July which is a vacation month in the steel industry. Although the consumption of iron ore has been rising, stocks remain high despite the small tonnage shipped from the Lake Superior region. Imports of ore from foreign sources were also cut back this year. The receipts of Canadian ores at United States ports totaled about 5.5 million long tons through September, 36 percent less than in the same period last year. The receipt of other foreign ores aggregated 14 million long tons, a decrease of 14 percent. At the end of September, stocks of ore at lower lake ports and at steel mills exceeded the total on hand at the same time in 1957 by nearly one million long tons. This large inventory of ore may cause an earlier than usual termination of shipments from the Lake Superior region this year. The demand for iron ore cannot be expected to pick up until next spring at the earliest, when it will again be possible to resume shipments.

Rising industrial production has also increased the consumption of copper. But here, too, stocks held by primary smelting and refining plants are high. Despite the fact that liquidation of stocks began in May, by the end of August, although lower, stocks were still over 10,000 tons above the total held a year earlier.

During October, a sharp rise in copper quotations in world markets coincided with a seven-week walkout at northern Rhodesian mines which substantially reduced world supplies of the metal. Even though these mines are back in production, the prevailing strength of demand for copper has led domestic producers to increase their output. In Montana, the Anaconda Copper Company has re-employed 675 workers and is again operating at full capacity. In Upper Michigan, the current copper prices will maintain the present level of production and possibly lead to some expansion.

Manufacturing

During the recent recession and current recovery industrial production in this district has paralleled closely the course of production in the national economy. However, because of the high degree of stability in the manufacture of non-durables which is so important in this region, the dip in district manufacturing employment has been moderate compared with the national decline.

The nature of the recent recession and current recovery in the manufacture of durables in the Ninth district, as shown by employment figures, may be observed on the chart on page 8. According to monthly figures, district employment in this field reached a peak in August 1957 as it did in the nation, and a low point in April of this year which preceded by one month the low point in the nation. However, on the basis of the index of industrial production, the output of durable goods in the nation was at a low point in April. Thus, there was no lag between the national and the district downturn during the current cycle nor in the upturn as there had been in former cycles.

The extent of cutbacks in the manufacture of

durables in the Ninth district is revealed by the relative drop in employment. In August 1957, employment totaled 151,200 and in April of this year, 129,100—a decrease of 14.5 percent in a period of eight months. As may be observed on the chart, this decline was sharper but of a shorter duration than in the previous recession of 1953-54. Retrenchments were made in all major classes of durable goods industries with the larger declines occurring in primary metals, machinery (both electrical and nonelectrical) and transportation equipment.

Since April, the output of durables in this district again has expanded and an increasing number of laid-off workers have been recalled. By October, employment in durables had regained slightly over one-third of the loss sustained since August 1957. As has been true in other recovery periods, output has risen at a faster rate than employment.

District manufacturing is almost equally divided between durable and nondurable goods industries. In each of these lines there is slightly less than 10 percent of the total district nonagricultural

employment. A substantially smaller proportion of the labor force is employed in manufacturing in this region than in the nation as a whole. Nationally, 17 percent of nonagricultural employment is in durable goods industries, while 13 percent is in nondurables industries.

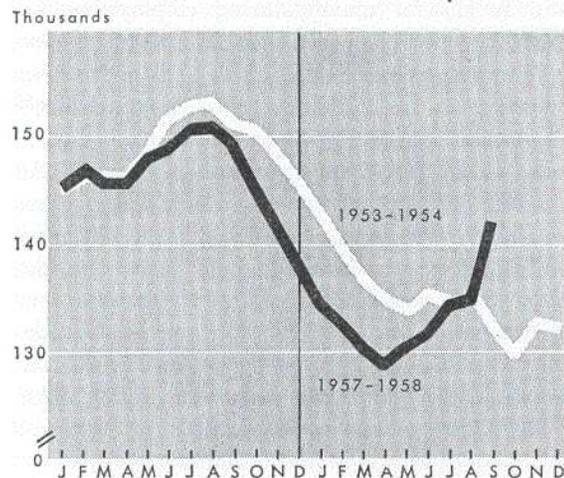
Over one-half of the district employment in nondurables is in food processing plants. Employment in these plants has a high degree of stability depending mainly on the production of crops and marketings of livestock in this area. The number of workers employed in some of these plants, especially vegetable canning, is highly seasonal and not materially affected by the business cycle. In the other nondurables—printing and publishing, paper and allied products, apparel, textile mill products, chemicals and petroleum products—employment, of course, is more subject to the swings of the business cycle. However, as a majority of the workers are employed in food processing, the cyclical swings in nondurable manufacturing in this district are small. On the basis of annual averages, a small decline in employment occurred in the recession of 1953-54 and another small dip occurred in the recent recession.

Because district employment in nondurables is concentrated to such a large extent in the food processing industry, it has a large seasonal variation. For example, each year employment rises to a peak in September when the canning of sweet corn is in full swing. As the food industry expands, the seasonal variation in employment is becoming larger.

The recent recession in industrial production in this district as in the nation was sharp but of short duration as compared with the recessions of 1948-49 and 1953-54. On the other hand, the recovery thus far is progressing at a rate very similar to that in the former cycles. However, the recovery phase is too new to conclude that it will be the same as in the previous cycles. Should it continue to follow the former course, a steady brisk expansion in manufacturing is in store for 1959.

—OSCAR F. LITTERER

Employment in durable goods industries in the district*, two recessions compared



*Except district part of Wisconsin (figures unavailable).

Money and bank credit in the recession

One of the most important magnitudes in any economic system is the size of the money supply. This quantity has a powerful influence on the volume of spending which in turn affects such important aspects of the economy as employment and prices. Generations of economists have argued the merits of various definitions of money without reaching unanimous agreement. Probably the most popular definition is that which reserves the term money for stuff that can be spent—demand deposits and currency and coin. Under this definition the 'privately held' money supply underwent almost no change during the year ended mid-1958, having increased but \$100 million or less than one-tenth of one percent. All of the change was produced by demand deposits, currency outside banks having remained stable. Note that the time deposits of banks, since they must be converted into something else in order to be spent, are not considered in the above description of changes in the money supply.

Although the concept of privately held money supply is widely used by analysts in assessing the economic effects of commercial banking developments, this quantity understates the amount of money created by banks in the year ended mid-1958 since commercial bank demand deposits of the U. S. government increased by \$4.9 billion during the period. Because such deposits become a part of the privately held money supply when they are withdrawn by the Treasury to finance government expenditures and because such expenditures affect employment and prices in the same way that private spending does, it is important to consider Treasury balances when analyzing changes in the money supply. The privately held money supply, together with Treasury balances in commercial banks, grew by \$5 billion or 3.7 per-

cent in the twelve month period. Treasury deposits at Federal Reserve banks were unchanged.

Even when Treasury deposits are considered, the increment to our money supply described above is much smaller than one might expect in view of the great commercial bank credit expansion which occurred during the period and in view of the historical relationship between bank credit growth and growth in the money supply. The deposit gains mentioned above amounted to little more than a third of the amount by which commercial bank loans and investments rose in the period. In contrast to an annual average increase of \$5.4 billion during the past ten years, the loans and investments of commercial banks rose by \$14 billion—almost three times as much as the ten year average rate—during the year ended mid-1958. Loans, U. S. Treasury securities and other securities valued at \$1.6 billion, \$9.2 billion and \$3.2 billion, respectively, were added to the earning assets of the commercial banks.

The rapid expansion of bank credit largely reflected the response of Federal Reserve member banks to several reductions of reserve requirements early in 1958. The amount of credit and deposits which the banks can support with a given amount of reserves is increased as reserve requirements are reduced. The reductions of reserve requirements, as well as several reductions of the discount rate at Federal Reserve banks, represented action to counteract the business recession.

The actual supply of bank reserves was reduced from the final statement week of June 1957 to the same week of June 1958, although holdings of securities by the Federal Reserve System increased by more than \$2 billion during the period as a result of open market operations. Reserve drains from other forces totaled more than this amount.

Thus, the repayment of member bank borrowing at the Federal Reserve and a gold outflow during the period absorbed reserves amounting to \$904 million and \$1,248 million, respectively.

Historically, a dollar added to commercial bank credit has been associated with a much larger increase in demand deposits—and thereby the money supply—and a much smaller increase in time deposits than was the case in the twelve-month period described above. For example, during the past ten years when commercial bank credit grew by \$5.4 billion a year on the average, demand deposits¹ of commercial banks grew by an average rate of \$3.2 billion per year. In other words, 59 cents of every dollar added to bank credit appeared on the liability side of the banking system condition statement as an increase in demand deposits¹. Time deposits of commercial banks, not considered a part of the money supply here, grew at an average annual rate of \$2.1 billion thereby accounting for 39 cents of each dollar added to bank credit in the decade.

In contrast, during the year ended mid-1958, the increase of demand deposits¹ accounted for only 36 percent of the added bank credit while time deposit growth of \$7.6 billion accounted for 54 percent. Had the rate of time deposit growth not increased substantially from previous levels, the credit expansion by commercial banks during the recession would have required a much larger addition to the money supply than in fact occurred. That time deposit growth did increase substantially is revealed by the following table which shows that such deposits in the twelve-month period through June of this year rose by more than three times as much as the \$2.1 billion average annual increase of the past ten years.

The recent accelerated growth of time deposits was occasioned by a number of forces, some more evident than others. Thus, lagging sales of consumer durable goods such as autos during the period suggest a shift in consumer preferences to-

YEARLY CHANGE IN PRINCIPAL ASSETS AND LIABILITIES OF U. S. COMMERCIAL BANKS

(millions of dollars)

Year ended	Loans and investments	Demand deposits*	Time deposits
12-31-48	- 1,986	- 1,056	561
12-31-49	5,899	1,482	407
12-31-50	6,478	8,587	175
12-31-51	5,935	6,895	1,634
12-31-52	9,014	4,982	2,875
12-31-53	4,063	150	2,985
12-31-54	10,229	3,999	3,212
12-31-55	4,965	6,147	1,506
12-31-56	4,242	2,119	2,193
12-31-57	4,945	- 1,150	5,532
6-25-58	14,060	5,070	7,640

*Other than interbank balances.

ward the accumulation of liquid assets rather than durables. Also, time deposits of commercial banks became more attractive relative to certain other investments upon which the rate of return was reduced. For example, a school district which in 1957 invested its idle funds in Treasury bills or certificates at a yield of 3½ percent might have employed such funds to purchase 3 percent certificates of deposit at a bank in 1958 when short term Treasury issues were yielding less than 2 percent.

Whatever the reasons for the spectacular addition to commercial bank time deposits in recent months, some have held that a part of the gain represents 'hot' money—funds to be withdrawn when alternative investments yield a higher return or when consumers decide to buy a larger volume of durable goods. This being so, it is argued that a definition of the money supply which excludes time deposits results in an understatement of recent monetary growth.

Thus, if John Doe withdraws his commercial bank time deposit, let us say to purchase a new auto, the dealer deposits the proceeds of the sale in his demand deposit account at some commercial bank. The money supply, conventionally defined, has been increased. The reserve requirements of the banking system as well as the money supply have been increased by the transaction

¹ Other than interbank balances.

because demand deposits with a high reserve requirement have been substituted for time deposits with a low reserve requirement. In the absence of a change in the total supply of bank reserves such as the Federal Reserve could produce by open market operations, either the banks must liquidate assets and thereby extinguish deposits in order to lower required reserves to the previous level or they must get along with less excess reserves than previously.

Assuming there is no change in excess reserves or actual reserves, the withdrawal of time deposits for spending can increase demand deposits (the money supply) by only a small fraction of the decline in time deposits. The difference between the amount that time deposits decline and the amount that demand deposits increase would have to be accounted for by a liquidation of loans or investments or both by the commercial banking system. To illustrate, if reserve requirements against demand deposits and time deposits were 15 percent and 5 percent respectively, demand deposits could rise by only $\frac{1}{3}$ of a dollar for every dollar of time deposits liquidated—if required reserves were to be unchanged. If demand deposits were to change by some other amount, the required reserves of the banking system would be changed.

Commercial Banks

Loans and Investments	—\$2/3	Demand Deposits	+\$1/3
		Time Deposits	—\$1

The simplified balance sheet above indicates the response of the banking system needed to preserve required reserves unchanged when a dollar is transferred from time deposits to demand deposits and when reserve requirements are 5 percent and 15 percent, respectively, against time and demand deposits. Other factors are assumed unchanged.

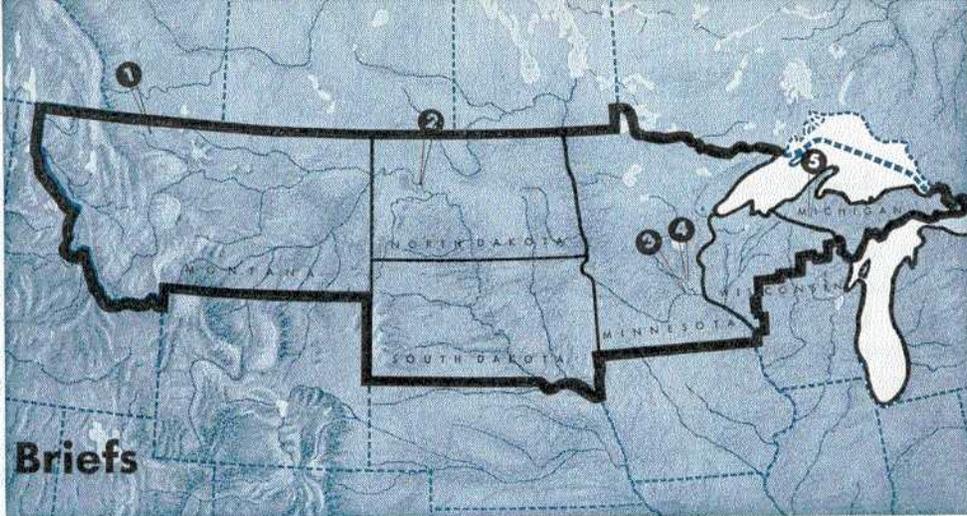
This is because the withdrawal of one dollar from time deposits lowers required reserves by 5 percent of one dollar, or 5 cents. In other words, 5 cents becomes available in the form of excess reserves for supporting additions to demand deposits. With 15 percent reserve requirements against demand deposits, 5 cents of reserves can support $33\frac{1}{3}$ cents of demand deposits, since the former quantity is 15 percent of the latter.

So while it is true that time deposit withdrawals increase the money supply, as conventionally defined, the increase is much less than the withdrawals; the exact relationship of course depends upon the level of reserve requirements against each kind of deposit. All of the above assumes the supply of bank reserves, excess reserves and the percentage reserve requirements remain unchanged. These quantities are, of course, subject to control by the Federal Reserve System and are utilized to implement monetary policy. Hence, if the results of time deposit withdrawals were unsatisfactory from the standpoint of monetary policy, the supply of reserves or reserve requirements could be changed to offset or to reinforce the indicated changes in bank credit and the money supply.

To summarize, it is true that the money supply can be increased if some of the time deposits accumulated in the recession are withdrawn from banks and paid to sellers or others who deposit the funds in demand accounts. But if the supply of reserves and excess reserves is unchanged, demand deposits can rise by only a fraction of the time deposit withdrawals and the loans or investments of banks will decline. In any event, limits to the lending power of member banks and the money supply are set by the supply of reserves and the percentage reserve requirements imposed upon member banks. Since these two variables are regulated by the Federal Reserve System, the monetary authorities are not without means to cope with undesirable growth in the stock of money.

—DOUGLAS R. HELLWEG.

Economic Briefs



1. Large gas discovery in N. W. Montana

One of the biggest gas discoveries in northwestern Montana in recent years was made recently by the Montana Power Company. Drilling near the East Keith area, which is slightly east of any previous production, revealed a gas well with a gauged flow of 25 million cubic feet daily. The flow is coming from two zones above the Madison and one zone in the Madison.

2. Fertilizer plant to use N. D. lignite

Construction of a \$15 million plant for producing agricultural fertilizers is planned for Riverdale, North Dakota. The plant will be operated by North Dakota Nitrogen, Inc., and will utilize the two million ton lignite stockpile at Garrison dam and other lignite resources. The company is arranging to lease on a long-term basis about 1,000 acres of project land directly below Garrison dam as a plant site and demonstration farm. About 200 persons will be employed at the plant when it is completed in two years.

3. Minneapolis grain firm to build terminal

F. H. Peavey and Company plans to build a grain terminal in Valley Industrial Park, 27 miles southwest of Minneapolis. The Peavey elevator will be built on a 21.5 acre tract in the west end of the industrial park. The site is located on high-

way 101, is served by the Chicago and Northwestern Railway and has more than 1,000 feet of river frontage. The Minnesota river will be dredged to a channel depth of nine feet from Port Cargill to the Peavey installation.

4. Gamble-Skogmo plans warehouse

The Minneapolis-based wholesale and retail firm of Gamble-Skogmo, Inc., plans to construct a warehouse and distribution center in St. Louis Park, Minnesota. The \$1,750,000 building will be the headquarters and servicing center for 460 independent dealers and 67 company-owned Gamble stores. About 40,000 tons of merchandise will be handled annually through the facilities of the new warehouse, and approximately 100 persons will be employed. When completed, the structure will be one of eight such warehouses operated by Gamble-Skogmo.

5. Workweek increased at Mich. iron mines

Effective November 24, the workweek of the M. A. Hanna Company at Iron River, Michigan, was increased from five to six days. This is a marked improvement for the iron mining firm which had been on a four-day workweek during the current year until October 6. The firm's active mines on the Menominee iron range are scheduled for a busy stockpiling season this winter.