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## BASIC AND REPLACEMENT DEMAND STILL HIGH

# Mortgage Credit Sustains Housing Boom

Lenders have become relatively more important in providing the necessary purchasing power

**T**HE CURRENT housing boom apparently is being sustained in large part by availability of mortgage credit on terms more favorable to the borrower.

Other factors, including a further increase in the number of households, population movement and growth, high income, and an accumulation of savings, have also been important in maintaining the high level of housing activity.

Liberalization of mortgage credit terms may be a significant force maintaining the level of house prices. Loan officers report that real estate men and builders have been seeking the most liberal terms on houses difficult to sell in order to move them at quoted prices. Apparently the prospective home buyer is more concerned with the required down payment and monthly payments than with total price.

### Activity remains high

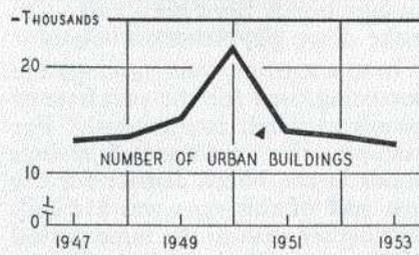
Home builders are still going strong. In most Ninth district communities the demand for new houses continues high, although in a few smaller cities the supply of new houses temporarily is in excess of the demand, since some houses built last winter remain unoccupied.

Builders have erected a record

number of houses in the postwar building boom, as can be seen on the chart of new dwelling units started in this district. The number of starts rose steadily through 1950, but since that time the total has tapered off somewhat below the number in that year, indicating that the housing shortage is now largely behind us.

Furthermore, a larger number of vacancies have appeared this summer in the Twin Cities and in many other district cities compared with previous years. According to real estate men, only a small per cent of homes offered for sale or rent is vacant.

**NEW DWELLING UNITS AUTHORIZED IN NINTH DISTRICT URBAN CENTERS\***



\*Data include four states wholly in this district.

Source: U. S. Department of Labor.

### Demand exceeds expectations

Despite considerable easing of the housing shortage and the appearance of a small vacancy rate, the demand for new houses has remained much higher than many observers thought it would.

The decline in marriages led some to the conclusion that the demand for new houses would decrease sharply. As may be observed on the chart, marriages reached a peak in 1946 and fell off in each successive year with the exception of a slight upturn in 1950.

In the four states wholly within this district, marriages totaled 41,067 in 1952 as compared with 65,137 in 1946 and 59,224 in 1947.

The decline in marriages is expected to continue to 1957 because of the smaller number of children born in the depression years of the Thirties.

### Growth in households creates 'basic' demand

Economic factors other than marriages have influenced the formation of new households. As a result, the dip in the number of formations has not been as great as the decline in marriages would indicate.

Single people have set up more households in the prosperous conditions prevailing in the postwar period than appeared likely a few years ago. Also, older people have postponed liquidation of their households until they have reached a more advanced age. Apparently social security and pensions now provide enough income for many couples, or for the surviving member, to maintain separate households.

Although the formation of new households accounts for the basic demand for new houses, other postwar developments have contributed to it. Movement of population from farms to cities, and especially the trek from cities to suburbs, has added to the large demand for new urban dwelling units.

Growth in the size of individual families, as evidenced by a substantial increase in births of a second, third, and not infrequently a fourth or fifth child, has increased the need for larger quarters.

Replacement of old dwellings is another major source of demand for new houses. With more families demanding modern improvements, a rise in housing standards in this district as well as in the nation has led to the scrapping of more old houses.

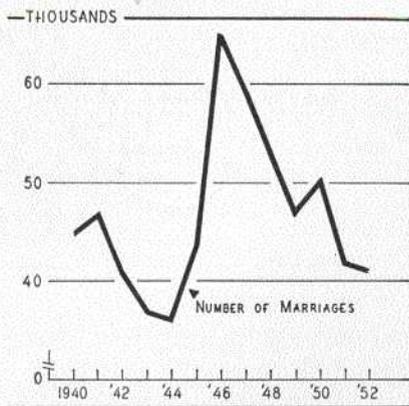
In comparison with the national trend the total number of households has grown slowly in the Ninth district. Especially in the Forties, many single and married workers with their families emigrated to more industrialized areas of the United States.

Between 1940 and 1950, for instance, the number of households in North and South Dakota and Montana increased by 6 per cent, 10 per cent, and 9 per cent respectively as compared with 23 per cent in the nation. Increases in Minnesota and Wisconsin (entire state) were 16 per cent and 17 per cent respectively.

On the other hand, the increase in Michigan (entire state) of 28 per cent exceeded the national average.

Because of its relatively slow growth in households, this district has not experienced a housing boom comparable to that in many other parts of the nation.

### TREND OF MARRIAGES IN THE NINTH DISTRICT\*



\*Data include four states wholly in this district.

Source: U. S. Department of Health, Education, and Welfare.

### Savings, employment, credit create effective demand

Housing needs, regardless of how great they may be, do not produce a housing boom unless the needs are translated into effective demand (sufficient purchasing power) for houses. In the postwar years the growing, effective demand has come from three sources:

1) A large accumulation of liquid savings; 2) High employment with accompanying high incomes; 3) Mortgage credit being readily available to prospective home buyers.

All three sources contributed substantially to the postwar building boom. This year the offering of mortgage credit on more liberal terms than in other recent years has been the big contributor to a continuation of the effective demand for new housing.

Another important stimulus to housing activity in the postwar years has been the large amount of liquid savings accumulated during and after World War II. Many savings bonds have been cashed to make down payments on houses.

In the current year, savings are not being used for the purchase of houses as much as previously. For example, the purchase of savings bonds in the Ninth district for the first half of this year was \$18 million higher than in the same period of last year. Redemptions, on the other hand, were up only \$4½ million.

A very high level of employment with accompanying high incomes had enabled many families to accumulate savings for down payments on houses and to qualify for conservative mortgage loans. Now, however, employment has receded from the high level in 1953 and overtime payments have been reduced to a minimum.

Mortgage credit has always been important in providing purchasing power for housing, since few families accumulate sufficient savings for the purchase of a home. Credit has played an increasingly important role through the general adoption of the new type of mortgage loans, which grew out of the financial collapse of the Thirties.

On these loans, prospective home buyers have been offered low interest rates, small or no down payments, long maturities, and monthly amortization payments. These loans, tailored to family incomes, have made it easier to finance the purchase of homes.

In fact, this type of loan has changed the philosophy of ownership from one of waiting and saving for a substantial down payment to that of buying and paying as the family lives in the home.

### Credit is stimulating 1954 housing demand

More credit is being used in the purchase of homes this year. In the states wholly or partly in this district,<sup>1</sup> the number of nonfarm mortgages of \$20,000 or less recorded in the first four months of this year exceeded by 6 or 7 per cent the number recorded in the same period of last year.

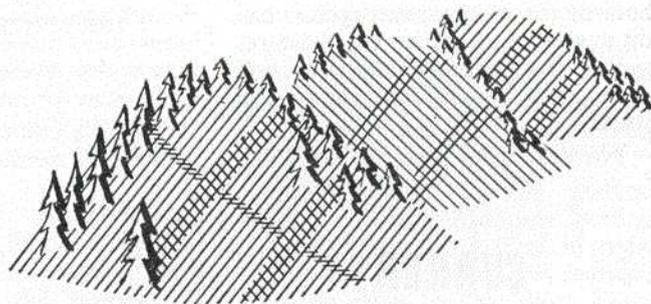
Furthermore, in most states the amount of credit granted on these mortgages was larger. This reflects lower down payments, since the prices of houses have remained quite stable in the past year and one-half. It may also reflect the building of an increased proportion of higher-priced houses.

Nearly all Twin Cities financial institutions extending mortgage credit are granting both VA-guar-

<sup>1</sup>Figures are not available for South Dakota.

Though a by-product from limited deposits,  
there are good reasons for interest in . . .

## Black Hills BERYL



Kin to the emerald, this mineral produced in the South Dakota Black Hills  
yields beryllium, rare and strategic metal

IN THE southern part of the Black Hills a coarse variety of granite called pegmatite is mined for nearly a half-dozen mineral constituents. One of these is *beryl*—a not-so-common mineral with strategic implications.

In fact, all the known pegmatites found in the U. S. which contain more than one percent beryl total up to only an 11,000-ton supply. More than half this amount is found in the Black Hills, where probably a hundred mines have produced it.

Pegmatites occur in "dikes" which are wall-like seams of granite forced while it was yet molten to occupy fissures in an archaic bedrock. There are hundreds of these dikes per square mile in the Black Hills.

Pegmatite dikes are the source of several commercial minerals. Feldspar is the primary one, but others include lithium, mica, quartz, and beryl. Beryl is in reality a by-product, subsidiary to other mineral production, because deposits are not rich enough to warrant mining for beryl alone under present prices.

### **Beryllium is unsurpassed as a copper alloy**

From the mineral, beryl, comes the metal, *beryllium*. It is light (only about two-thirds the weight of aluminum) and somewhat on the rare side.

Only in the past score of years has beryllium come into significant usage, but it is now classified of

strategic importance to the U. S. because of (1) its outstanding success as a hardening alloy of copper, and (2) the fact that domestic sources turn out only a small part of our needs.

Biggest use by far is in the form of beryllium-copper, an alloy containing about 2 percent beryllium. The alloy can be easily worked, and heat treatment will increase its strength to six times that of commercial copper. It has outstanding resistance to heat, fatigue, corrosion and wear, and conducts heat and electricity well.

These properties made it almost irreplaceable during World War II. Most frequent use was in high-wear parts—such as bushings in airplane engines—but the alloy has several other important uses, and no completely satisfactory substitute is known or even foreseeable.

More than just an alloy, however, compounds of the metal have several lesser commercial applications, and a great deal of beryllium goes into research.

### **Beryllium has atomic energy applications**

Beryllium has been a principal in more than one drama of the atomic age. Scientists had suspected the existence of the "neutron" for a dozen years before it was first observed in 1932 striking and splitting the nucleus of an atom. Beryllium, which emits bursts of neutrons under the influence of radium radiation, was the source of bombarding

neutrons for this historic discovery.

Beryllium, however, has other unique properties that have made it valuable in atomic developments. It was found that unless the flight of neutrons from fissioning uranium-235 was slowed down, ordinary uranium could not be "split" on a self-sustaining basis to release its tremendous energy content. Beryllium is one of a few substances that have the property of slowing or "moderating" neutrons, and so has important potential uses in atomic reactors of the type that may be used eventually to generate power.

For these reasons, the Atomic Energy commission has had a strong interest in beryllium resources and has backed intensive geological studies in recent years of the Black Hills and other domestic deposits of beryl.

### **Commercial milling method needs to be developed**

It has been suggested\* that further development of domestic beryl output will require both more favorable prices and an improved technology.

Domestic production during 1952 amounted to about 500 tons of beryl, whereas imports that year were around 6,000 tons. Consumption recently has been between 2,000 and 3,000 tons a year, with considerable amounts going into stockpile.

Beryl as found in domestic pegmatite is usually fine-grained and thoroughly intermixed with other

minerals. Consequently, before the bulk of these domestic deposits can be exploited, a method will be required for grinding pegmatite and recovering beryl from the milled rock.

No successful method for doing

this has yet been developed, although the U. S. Bureau of Mines has worked intensively on the problem at its Black Hills pilot plant with some promising results.

Should a commercially attractive solution be reached, the Black Hills,

and in particular the Keystone district with its concentration of beryl deposits in a small area, is considered a logical place for construction of a custom mill.\*

\*See: "Materials Survey, Beryllium," by the National Security Resources Board.

## CURRENT

## TOPICS

☆ Business

☆ Banking

☆ Farming

■ The district's economic pattern for 1954 is now more than half completed, and in spite of a few ragged edges—a drop in farm prices and some unemployment—it looks much better than many anticipated at the year's beginning.

Many of the "Geiger counters" of economic activity in the Ninth district such as bank debits, retail sales, and farm marketings were "sounding off" at midyear at about the same tempo as a year earlier. Some indicators were even higher. For example, lumber sales increased from an index of 79 in June of 1953, to 87 this June (1947-49=100).

Construction activity, both housing and non-residential, has been very good thus far in 1954, and prospects for a continued high level of activity appear promising for the second half of the year. At least, the large volume of new building permits in recent months would indicate this to be true.

The one notable exception was farm prices, which were off approximately 5 percent from those of a year ago. However, the heavy marketings of farm commodities during the first six months of 1954 are expected nearly to balance cash farm income with that of the same period a year earlier—and it is cash income that rings the cash register along main street and helps to increase the tempo of the other economic Geiger counters.

A couple of good general rains if they occur in late July and early

August would almost insure large crop production as well as good grass for livestock in the second half of 1954.

Furthermore, a record carryover of wheat and feed grain stocks into the second half of the year has favorable economic implications in the period ahead. Livestock inventories were also at relatively high levels at midyear—an important factor in the future farm income picture.

Well-filled grain bins and crowded livestock pens, together with a big new crop coming along will be vitally important factors supporting the district's total economy for the rest of 1954.

Except for the mining and highly industrialized areas, it might be said, "As goes agriculture, so goes the economy of the Ninth district."

### BUSINESS

#### ► *Employment in the Ninth district has been holding steady*

Construction, canning, and sundry outdoor projects accounted for most of the expansion in the district's nonfarm employment between May and June.

More workers were employed by both building and general con-

tractors. In most localities, building activity has been heavy in dwellings, additions to school plants, service buildings, retail stores, etc. General contractors have been engaged chiefly in the heavy construction work of building highways, bridges, streets, as well as municipal improvements.

In the food processing industry, seasonal employment has displayed its customary sharp rise with opening of the canning season.

However, in the manufacture of durable goods, which has been the main source of weakness in the business situation, employment continued to decline in June.

The labor force has been growing faster than in previous years, especially in the western half of the district. In addition to the population growth in these states, a return of workers from other states has added to the supply. As a result, the reserve of unemployed workers has been larger than in preceding years.

#### MONTANA EMPLOYMENT HIGH

In Montana, nonfarm employment during June again exceeded by a slender margin the total for the same month of 1953. In both April and May, employment fell

slightly below the corresponding totals of the previous year.

The state employment service reports that the industries contributing to this increase in employment were mining, contract construction, trade, finance, and government.

On the other hand, employment in the manufacture of durable goods has continued to decline. It also dropped somewhat in transportation, utilities, and service industries.

#### STRIKES REDUCED JUNE EMPLOYMENT

June nonfarm employment in Minnesota was down about 6 percent from a year ago. A part of this decrease was caused by the shutting down of construction projects in the Twin Cities area due to strikes called by A.F.L. iron workers, plumbers, and pipefitters.

As a result of this shutdown, the number of construction workers employed in the entire state in June was down 19 percent from the total at work a year ago.

In May the number of building workers employed was 11 percent higher than last year.

Cutbacks in the manufacture of durable goods have progressively reduced employment in Minnesota factories. As compared with a year ago, June employment was down nearly 8 percent. This percentage has declined steadily since the first of the year.

According to the Department of Employment Security, employment in the durable goods sector is likely to decrease more this year in the summer months. On the other hand, a normal seasonal increase in employment is expected in the food industry.

Less employment in metal mining has reflected the reduced demand for iron ore. In comparison with year-ago figures, the number of workers employed in Minnesota iron ore mining in June was down 11 percent. In May, the total was down as much as 15 percent.

The Department of Employment Security expects labor requirements in this industry to rise somewhat in the latter part of the season.

#### OTHER STATES COMPARABLE

Although June employment figures were not available for district states other than Minnesota and Montana, supplemental information suggests that employment in these states has followed closely the trends described above.

In both North and South Dakota, nonfarm employment in the second quarter remained close to the 1953 level. In the northwestern part of Wisconsin and on the upper Michigan peninsula, employment has been down several percentage points due mainly to reduced activity in iron ore mining.

#### ► Average weekly earnings up in most of district

Despite the layoffs made by numerous firms, the average weekly earnings of those employed in most district states have continued to rise.

An exception to the general trend occurred in Montana. Several months ago the work week in metal mining and processing was reduced from six days to five days. Since this eliminated most of the overtime pay, it reduced materially the take-home pay of metal miners. The state employment service reported that earnings in June averaged \$15 less per week than they did a year ago.

The number of hours worked in manufacturing firms decreased last winter and spring. Consequently the hours worked in all district states now average less than a year ago. However, in May and June this measure of labor productivity stabilized and in a few localities even turned up slightly.

#### ► Department store sales have followed closely the 1953 trend

As compared with receipts for the comparable period in 1953, district department and general store sales in June were down 2 percent, and only 1 percent for the first six months.

In some communities, sales have slumped this year. For example, in the first half, receipts in Duluth and Superior were down 5 percent; and in northeastern Minnesota, which includes the Iron Range cities, they were down 11 percent. In western Montana, sales also were down 8 percent.

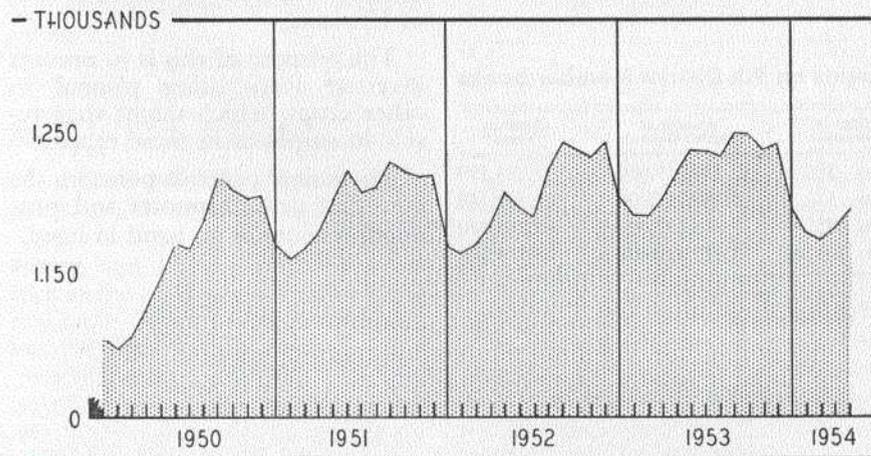
Lower sales in these areas reflect, to a large extent, lesser mining activity.

Sales have lagged this year in a few regions where agriculture is the principal activity, but not by as large a percentage as in the mining areas.

#### ► Bank debits showed gain

That the aggregate volume of business transacted in this district has held up well despite a lower level of nonfarm employment has been reflected by bank debits. As compared with 1953 figures, debits

### NONFARM EMPLOYMENT IN THE NINTH DISTRICT\*



\*Data include four states in this district.

Source: State employment services.

in June were up 6 percent, and 3 percent in the first half of this year.

## BANKING

### ► **Required reserves at district's member banks lowered approximately \$34 million**

On June 21 the Board of Governors of the Federal Reserve System announced a reduction of reserve requirements for member banks to become effective in the period from June 16 to August 1. It is estimated that, as a result of this action, required reserves for all member banks in the nation will fall by more than \$1.5 billion. This amount then may be employed to support additions to the loans, investments, and deposits of the member banks.

Needs for credit are expected to intensify shortly as Treasury deficits require borrowing by the government and as the approach of autumn stimulates seasonal demands for accommodation from private borrowers. With larger excess reserves the banks can better serve these needs.

Reserve requirements against both demand deposits and time deposits were reduced for each class of member bank—central reserve city, reserve city, and country banks.

In the Ninth district, which contains only reserve city and country classifications of member banks, required reserves will fall by approximately \$34 million as a result of the lowering of requirements.

This estimate is based on the average amount of net demand de-

posits and time deposits held by district member banks during the first half of June. A breakdown as between types of deposits and types of banks is presented in tabular form below.

## FARMING

### ► **Wheat and feed stocks were at new high on July 1**

Ninth district farmers on July 1, 1954, were holding back more wheat and feed grains in farm storage than ever before. A large proportion of these storage stocks are under government price support loans or are government owned grains stored on farms.

The amount of wheat in district farm storage on July 1 was more than double that of last year. Corn stocks on farms were one-third larger. Most other grain stocks also were substantially larger.

In contrast to the large supplies of wheat and feed grains in district farm storage, soybean stocks were relatively small. A year ago on July 1, there were over 2½ million bushels of soybeans in farm storage. This year, it was only 330 thousand bushels, the lowest in 12 years of record.

### ► **Wheat allotments to curb production**

Farmers voted, July 23, in favor of continuing wheat marketing quotas for 1955 production. This means that district wheat growers, if they observe the quotas on wheat and are in compliance with acreage allotments for other crops on their

farms, will be entitled to price support on wheat.

If a farmer plants more than his quota of wheat for 1955, he will be subject to penalty (fine) in an amount approximating 45 percent of the parity value of the excess wheat.

The wheat acreage to be taken out of production in the Ninth district during 1955 represents approximately a 12 percent reduction from the 1954 acreage. The acreage quota for the two years, 1954 and 1955, represents approximately a 32 percent reduction in wheat acreage from that of 1953, when no controls were in effect.

### ► **Cross compliance in 1955 to bring higher controls**

This year (1954), farmers can get price support on wheat by being "in compliance" with the acreage restrictions on wheat alone. Next year it will be different. To get price support on wheat, the farmer must be "in compliance" on all other acreage allotments that concern his farm. The same would be true for corn or any other crop with acreage allotments.

Furthermore, those farmers that have more than 10 diverted acres will have a "total allotment" as well as single crop allotments. This total allotment includes allotment and non-allotment crops.

Farmers can't plant more non-allotment crops in 1955 than they had in 1953. Acres taken out of crop production will have to be put into pasture, cover crops, green manure crops, hay, summer fallow, or left idle.

The purpose of this is to prevent diverted acres being planted to other crops, which might then result in surpluses in these crops.

These new controls point up the fact that price supports and production controls go hand in hand.

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**Effect of Reduction in Reserve Requirements on 9th District Member Banks**

Date	Banks	Type of Deposit	Drop in Requirement	Amount of Affected Deposits	Reserves "Freed"
June 16	Country	Time	6% to 5%	\$ 888,359,000	\$ 8,883,590
June 24	Reserve City	Time	6% to 5%	188,915,000	1,889,150
July 29	Reserve City	Demand	19% to 18%	974,182,000	9,741,820
Aug. 1	Country	Demand	13% to 12%	1,377,179,000	13,771,790

# Vacation Industry Approximates Last Year's Volume

**O**VER-ALL volume of vacation travel in the Ninth district through June of the 1954 season at least approximated last year's levels, it would appear from statistics available at midyear. Local exceptions that did occur were minor in scope.

In South Dakota, where the Black Hills constitute the major tourist attraction, the consensus of operators seems to be that travel business is even better than that of last year.

In Montana, Glacier National park reported travel volume (through June) to be about one percent ahead of the like period last year, suggesting that some 625,000 people will see the park before snows close it this fall.

On the other hand, the number of tourists visiting Yellowstone park through June 30 was somewhat less than last year. This year's figures were 283,389 persons as against 290,848 in 1953.

In future years, the mounting public fleet of passenger cars, the trend toward longer vacations, and increased personal resources promise a growing influx of summer visitors to these scenic western areas.

## Changing living habits and rising living standards promise long-term growth in travel and tourist spending

Lakes are far more numerous than summer resorts in the forested northeastern sector of the district and are one of the important elements that make this area attractive to the summer vacationer.

A group of 315 resorts and motels in Minnesota and upper Michigan report operating statistics monthly during the summer. These figures, showing occupancy and reservations as a percent of total capacity, are given in the accompanying table.

Traffic counts by the Minnesota

highway department measured May and June highway travel in the state at a slightly lower level than last year. Ferry traffic crossing the Straits of Mackinac in Michigan included nearly 159,000 cars through June—up 7,000 from last year's like period. Attendance at state parks in Michigan also experienced a sizable increase.

The growing population of mid-western urban areas\* that provide the great bulk of vacationers visiting the lake region would seem to promise plenty of potential for resort industry expansion in the future.

A big boost in travel is expected to follow construction of the \$100 million Mackinac bridge now under way to link the upper and lower peninsulas of Michigan. • • •

\*Primarily Chicago, Milwaukee, Detroit, Minneapolis and St. Paul.

Occupancy During June—Reservations as of June 30, 1954

	% occupied during June	% reserved for July	% reserved for August
Upper Michigan Resorts .....	24%	35%	26%
Upper Michigan Motels .....	51%	5%	2%
Minnesota Resorts .....	38%	58%	35%
Minnesota Motels .....	68%	8%	3%

## MORTGAGE CREDIT

Continued from Page 159

anted and FHA-insured loans as well as the conventional type. Most real estate brokers have several outlets for their loans.

Lending institutions in this district are accepting more liberal terms on GI loans. A relatively small number of GI loans, however, have been made with no

down payment and 25- or 30-year maturities. The one-for-one transaction with the Federal National Mortgage association has been an outlet for these mortgages. A number of Twin Cities financial institutions have purchased seasoned GI or FHA loans from FNMA with a commitment from this agency to purchase an equal dollar value of new mortgages. Insurance companies also have been buying these loans in limited number.

A large number of GI loans is

made with a minimum down payment of 5 per cent and from 25- to 30-year maturities. Of course, more conservative institutions require a minimum down payment of 10 per cent or more.

Since lending institutions are accepting GI loans on these liberal terms, fewer FHA and conventional loans are being made with the more conservative terms allowed on them. Nearly all lenders have been accepting the minimum down payments and maximum maturities

approved by the Federal Housing administration.

The current minimum down payment is 20 per cent and the maximum maturity is 25 years on new houses valued at \$12,000 or more. On lower-priced houses, a minimum down payment of 5 per cent is required on the first \$7,000 of the appraised value and 30 per cent of the value exceeding \$7,000, to a maximum of \$9,450. Down payment on the lower-priced houses has averaged about 15 per cent.

In the Housing Act of 1954, the Conference Committee of the U. S. Congress has approved an increase in the maximum maturity of FHA insured loans from 25 to 30 years. A minimum down payment of 5 per cent was approved on new houses valued up to \$10,000. Above this price bracket, the minimum

down payment proposed increases as a ratio of the value of a house with a minimum down payment of 20 per cent on a house valued at \$25,000.

### **Loan rates holding firm**

The rate of interest on conventional mortgage loans has held quite firm at 5 per cent. However, in recent months some Twin Cities institutions have given preferred borrowers a  $4\frac{3}{4}$  rate, or even  $4\frac{1}{2}$ .

In many smaller communities of this district, pressure also has developed to reduce the rate of interest to preferred customers. Insurance companies have reached out into these communities and made some conventional loans at 4 per cent.

Discounts in the mortgage market have been lowered. GI loans with a down payment of 10 per

cent or more are selling at par in the Twin Cities. Those with down payments of less than 10 per cent, and depending on the maturity, are selling for discounts ranging from  $\frac{1}{2}$  per cent to  $2\frac{1}{2}$  per cent and occasionally for 3 per cent. FHA loans are selling at par.

Builders in the Twin Cities report that advance commitments are readily available for mortgage loans with the generally accepted down payments and maturities. Some state it is difficult to secure commitments for GI loans with no down payments and 30-year maturities.

Mortgage credit is in much greater supply than a year ago, according to builders. As indication of this, they have been offered outlets for loans with more liberal terms or with smaller discounts. • • •

## **ECONOMIC** *Briefs*

### **SIGNIFICANT HAPPENINGS IN THE NINTH DISTRICT**

#### **✓ Crude line to GN refinery set**

Contract has been let by Minnesota Pipeline company for its 260-mile-long, 16-inch-diameter crude oil pipeline. The line will run from Clearbrook, Minnesota (where it will link with the Interprovincial pipeline) to Great Northern Oil company's 25,000 barrel-a-day refinery now under construction at Pine Bend, south of the Twin Cities.

Initial capacity of the line, which will cost about \$12.5 million, will be 35,000 barrels a day. The line is expected to begin flowing some 15,000 barrels a day of medium gravity crude oil from the Foster-ton fields in Saskatchewan by June 1955.

#### **✓ District gets 3 Air Force bases**

Air Force fighter-interceptor bases are scheduled for sites near Glasgow, Montana, and Minot and Grand Forks, North Dakota.

The base at Glasgow will cost an estimated \$9 million, and it will have a permanent staff of about 1,200 officers, enlisted men and civilian employees.

The Grand Forks base will cost

about \$7 million, while the Minot base will cost about \$7.5 million. Each will have a complement of about 880 persons.

#### **✓ Army worms hurt small grains**

The "army worm" infestation of the western third of Minnesota and part of North and South Dakota was estimated by the state entomologist to have destroyed about 10 percent of Minnesota's small grain crop (valued at \$10 million).

Major difficulty came because of the shortage of insecticides and spraying equipment at the time when the worms were most active. By the end of July the worms went into their "resting" stage and further damage ceased.

Some 150,000 pounds of insecticides have been airlifted into the state (primarily toxaphene, DDT, and parathyon).

#### **✓ Presto plant goes all defense**

Presto Industries, Inc., is adding a factory, warehouse, and substation to its Eau Claire, Wisconsin, plant at a total cost of \$1 million.

This comes as part of the company's program to switch Eau

Claire plant production completely to defense work and move civilian goods manufacture to plants elsewhere in the country.

Presto Industries holds large government contracts for the manufacture of 105 mm. artillery shells.

#### **✓ ADM to add to river facilities**

Archer-Daniels-Midland company has applied for a permit from the Corps of Engineers to build a grain loading dock and handling facilities on the Mississippi river in St. Paul.

Most incoming grain would be trucked to the dock where storage facilities would exist for 2 million bushels of grain (in the case of wheat, about 60,000 tons). Completion of the unit is planned for 1955.

There has been a rapid growth in river shipments from the Twin Cities in recent years. During 1953 some 310,000 tons of grain went out of the Twin Cities area by water. Three companies at present have grain shipping facilities of this nature in the Twin Cities area: Cargill, Inc.; Continental Grain Co.; and Farmers Union Grain Terminal association. • • •