than the Federal Government increased their "takeings" not only by the amount of additional total output but also by the amount that Government buying was reduced. Output itself was higher for two reasons—because more people were working than before, and because productivity per worker was higher.

In June and in early July the possibility of major strikes in the auto and steel industries threatened the resurgent prosperity. But the speedy conclusion of wage contract negotiations avoided any significant loss of production. Thus, the outlook for the last half of the year was improved by the assurance that these particular strike threats had vanished.

**Total Employment Is Highest Ever**

In June more than 64 million persons were employed (including self-employed) in the United States—the highest total employment figure ever reported. This was almost two million higher than the figure reported for June, 1954, and compares with 63.7 million employed at the previous high in July and August of 1953. Unemployment—at 2.7 million persons—was .6 million less than a year earlier. (Employment in terms of wage-and-salary jobs was still somewhat below 1953, however.) In many industries the average weekly hours worked were also higher than a year ago.

Industrial production (seasonally adjusted rate) has increased in every month since August of 1954. In June this rate was the highest ever at 139 percent of the 1947-49 average. It compares with a rate of 124 percent a year earlier. In part the increase was accomplished with higher productivity and longer hours, but it also reflects the employment of more people in factories and mines than in 1954.

Reflected by the industrial production index were steel and auto production, both of which established new "high water marks" during the first half of 1955. While the total volume of durable goods being turned out was still slightly below the rate set in 1953, output of non-durable goods was well above 1953's peak volume.

Construction activity, too, reached a new high level in the first half of 1955. June outlays for new construction were the highest for any month on record. For the first half of 1955, such outlays were 11 percent ahead of the year earlier level. New homes, an important component of total construction, were being started at a rate almost 20 percent higher than during the first half of 1954.

Estimates of gross national product, while somewhat less current than other statistics, illustrate the direction and volume of total production. The seasonally adjusted annual rate of total production for the first quarter of 1955 was estimated at approximately $375.3 billion. This compares with the previous record year of 1953, when the gross national product was valued at $364.5 billion, and with the previous high quarterly rate of $369.9 billion set in the second quarter of 1953. Most figures indicate that the national product rate continued to rise during the second quarter of 1955.

Evidence that the country's swelling flow of output is finding ready buyers can be found on the cash register tapes and credit ledgers of the nation's retailers. The Commerce Department estimated that in June retail sales were up 6 percent from a year earlier. More
Bank loans outstanding at member banks were higher in May 1955 than for May a year ago.

Goods were moved off retail shelves in the first half of 1955 than in the comparable period of any other year.

Farm Income Continues Lower

As is usually true in a free society, however, not all industries have qualified for the "prosperous" label during this favorable period. Although agricultural production has continued high, prices of farm products generally have been characterized by weakness rather than by strength. Farm income has continued to decline. Continued high production, along with the inventories of many important farm products accumulated under the price support program, have removed the "zip" from what otherwise would be a favorable market situation for farmers—namely, high incomes in the city. Average income per farm has fallen somewhat less rapidly than total farm income during this period, however, owing to the movement of rural population to urban areas.

District Improvement Substantial, but Less Than National Trend

Despite the absence of general improvement in the economic position of district farmers, business conditions generally throughout the district compare favorably with a year ago.

In fact, cash farm income is the only one of several district economic measures that did not register higher during the early months of 1955 than a year ago. The cash receipts of district farmers from their marketings during the first four months of 1955 were down just slightly (less than one percent) from 1954, whereas cash receipts of farmers for the U. S. as a whole declined by a little more than 3 percent. Thus, district farm income enjoyed two distinctions—not only is it the sole economic indicator registering less than a year ago, but it is also the only district measure that compares more favorably with a year ago than the comparable national figure.

Generally lower prices for farm products important within the district were largely offset by a larger volume of commodities marketed during the first four months of the year. This larger movement of products through market channels also contributed to greater activity in marketing and processing and handling industries.

Off the farm, in factories and other non-agricultural enterprises, activity in May was ahead of a year ago and equal to the highest previous level for that month, established in 1953. This is indicated by the non-agricultural employment figures for the district, which were up slightly from last May.

With more people at work, district residents were apparently more willing to spend that income. While a district retail sales figure comparable to the national series is not available, district figures do show an increase for some of the major components of total retail sales which are measured on a district basis.

For example, the figures on new car registrations, which are a good measure of new car sales, were up from a year ago by 7 percent in the first five months of the year according to reports for the four states fully within the Ninth district. The increase from a year ago
was not sufficient to establish a new record for the district. But for the nation, the previous record for auto sales was surpassed in this 5-month period, with a 25 percent increase over last year.

District department store sales—another major component of total retail sales—were higher in the first half than in any other year on a seasonally adjusted basis; but again, the national improvement of 7 percent from a year ago was greater than the district gain of 5 percent.

Further evidence that spending in the district has increased less rapidly than the national average is found in the ledger books of district banks. Reports from a sample of district banks disclose that the dollar amount of checks drawn through May this year was 8 percent higher than a year earlier. This compares with a larger national gain of 10 percent.

In keeping with the pattern of other indicators, member bank deposits in the district also have increased from a year ago but not quite as much as the national average. A district gain of 2.1 percent compares with a gain of 4.7 percent for all member banks in the nation. Proportionately, the district growth in member bank loans, at 9 percent over a year ago, was almost as great as the national growth of 10 percent.

In construction, the district compares more favorably with the national economy. Contract awards, for example, were up by 29 percent from a year ago in both the district and the nation in early 1955. The value of building permits granted by district communities was never higher than in the first half of this year. Construction employment figures confirm the other indicators in showing high activity.

Most of these statistics indicate substantial improvement of economic conditions in the district since last year. They also suggest that the improvement has been somewhat less spectacular than in the rest of the nation. Part of the reason for this may lie in the relative condition of the district and national economy a year ago. Generally speaking, the Ninth district was less affected by the so-called recession conditions of 1954 than some other areas. This also affects this year's comparison with a year ago.

The state of the district's economy will normally reflect a combination of both national trends and the level of business originating strictly within the district.

The Cost of Credit

Loan balances at member banks increased in the past year in response to a relatively strong demand for credit of all kinds. Consumer credit and mortgage credit in particular experienced substantial growth. Also security issues of governments at all levels continued to absorb lendable funds in large volume.

While the continuing supply of lendable funds originating with savers has been augmented by commercial bank credit expansion, credit demands have been sufficiently great to produce slowly rising interest rates after the recovery movement began in mid-1954.

Since the economy is again nearing the full employment of its resources, the danger of inflation from monetary expansion is now greater than was true last year. Under these circumstances, higher interest rates contribute to price stability by discouraging credit-financed spending and by encouraging savings. Without higher interest rates, the chances for continued price stability would be less than otherwise.
BOTH the exploration for new petroleum deposits and the development of known reserves in the Ninth district are proceeding at a slower rate than a year ago. The slower overall rate, however, is punctuated by intense interest in production prospects at several widely scattered points throughout the area. Here are a few recent highlights which mark the continuing development of petroleum resources in the district's western states.

More Oil Produced

Total oil production for the district as a whole has continued to move upward to higher output levels. Average daily output for the district was about 73,500 barrels during March, compared with an average 51,000 barrels daily during March of 1954. (Almost all of this production is from Montana and North Dakota.)

The Williston Basin, where the first discoveries were made in 1951, already provides more than half of this amount. Growth of the Basin's production over the past year and a half is indicated by the following table:

<table>
<thead>
<tr>
<th>WILLISTON BASIN OIL OUTPUT</th>
<th>August 1953</th>
<th>March 1955</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Dakota</td>
<td>14,320</td>
<td>29,000</td>
</tr>
<tr>
<td>Montana</td>
<td>7,600</td>
<td>18,400</td>
</tr>
<tr>
<td>Minnesota</td>
<td>1,820</td>
<td>9,700</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>1,540</td>
<td>7,400</td>
</tr>
<tr>
<td>Total</td>
<td>25,280</td>
<td>64,500</td>
</tr>
</tbody>
</table>

Source: State oil supervisory agencies, Williston Basin Oil Review.

The Montana figure of 18,400 barrels includes only production from within the generally accepted limits of the Williston Basin, whereas output for the entire state averaged 44,500 barrels a day during March. It may be of interest to note, however, that the Poplar Field in Montana, within the Williston Basin, is now the state's biggest producer.

In North Dakota, about 80 percent of the state's production comes from its two largest fields, Beaver Lodge and Tioga.

Proved Reserves are Larger, Too

Reserves developed so far in the Ninth district represent only a small part of the nation's total supply, but the share they represent is growing. As of December 31, 1954, reserves in the Ninth district made up about 1½ percent of the estimated proved reserves of crude oil in the U. S. Changes in reserves during 1954 are given in the following table.

For the district as a whole, both production and reserves are growing at greater-than-national rates. Because of the relative recency of development in large areas of this district, current production and reserve levels are considered to be far below their ultimate potential.

Oil has been discovered in northwestern South Dakota. However, production to date is erratic, and estimates of reserves are not yet feasible.

Oil Search Takes Pause

Drilling rigs were less active in the Ninth district this spring than during the spring of last year. This experience was shared with other parts of the northern Great Plains, as the following table shows:

| This Number of Rotary Drilling Rigs were Active: |
|---------------------------|-------------|------------|
| March 31, 1954 | March 31, 1955 |
| Montana              | 32          | 27         |
| North Dakota         | 35          | 19         |
| South Dakota         | 3           | 0          |
| Wyoming              | 88          | 65         |
| Western Canada       | 127         | 85         |
| U. S. Total          | 2,601       | 2,656      |

Source: Interstate Oil Compact Commission.

| ESTIMATED PROVED RESERVES OF CRUDE OIL (In millions of barrels) |
|---------------------------|-------------|------------|------------|-------------|------------|
| Mont. | No. Dak. | Wyo. | U.S. | Western Canada |
| Reserves as of 12/31/53  | 209         | 128   | 1,279  | 28,945  | 1,817      |
| Additions during 1954 | +77         | +12   | +113   | +2,873  | +456       |
| Production during 1954 | -14         | -6    | -89    | -2,257  | -94        |
| Reserves as of 12/31/54  | 272         | 134   | 1,303  | 29,561  | 2,179      |

Source: American Petroleum Institute.
New Pipelines

In eastern Montana construction is underway on a crude oil pipeline that will help break the transportation bottleneck in that part of the Williston Basin.

The $19-million Butte Pipeline will stretch some 450 miles from Poplar Field to east-central Wyoming, where it will connect with either Western or Platte pipelines, or possibly both. (These lines carry Wyoming oil to the Chicago and Wood River areas in Illinois.) Completion of this outlet should raise field prices and permit more rapid development of the score of oil fields so far discovered in eastern Montana—and may spur further exploration activity.

Key Oil Tests

In the Bottineau area of North Dakota, recent finds have increased hopes for shallow production in that state. First oil discovery of the year in North Dakota was made in this area late in June. Aside from these prospects, the hoped-for oil discoveries along the eastern margins of the Williston Basin have not yet materialized.

Meanwhile, in eastern Montana the Cedar Creek anticline has continued to yield new discoveries with considerable potential. Most recent of these was the Pennel Field, discovered during June near Baker. The discovery well yielded oil flows on tests from four different horizons totaling about 680 feet in thickness—one of them a "new producer" in the area.

The region westward from the Williston Basin is being watched with increasing interest. Some recent finds have been encouraging. Among these are the gas discoveries in the Pumpkin Creek area of Powder River County (see December, 1954, Economic Briefs) and the oil discovery in northeastern Yellowstone County (see June, 1955, Economic Briefs).

Finally, crucial tests are being made in the so-called "Rocky Mountain front" of northwestern Montana. This sector is geologically similar to that of the famous Pincher Creek gas field a relatively short distance away in Alberta. Union Oil Company's well, the "No. 1 Morning Gun," being drilled on the Blackfeet Indian reservation east of Glacier Park, held the spotlight during July as careful testing began of the complexly folded rock layers buried deep along this belt.

Thus, petroleum development in the western part of the District has taken on some of the aspects of "watchful waiting." These and other events of recent months strongly suggest that an intensified search for oil and gas production is ahead for the Ninth district. END

CURRENT TOPICS

Agriculture lags in otherwise prosperous district trend

A PROSPEROUS pattern of district economic activity presented little in the nature of contrast at midsummer.

Practically all of the regularly kept measures of business activity registered substantial gains during the first six months of 1955. District industrial production, employment, income and sales were all higher than a year ago. Some were higher than ever before.

Agricultural income was the lagging exception in an otherwise robust upward trend, although the cash received by district farmers for their marketings during January-May was down less than 1 percent from the year-ago receipts.

Actually, agriculture was contributing in an important way to the higher level of district business—as a result of larger livestock production and marketings and a favorable crop prospect that would set some new records if July 1 estimates were realized at harvest time. Although lower prices for many farm products might offset part or all of the increase in output as far as farm income is concerned, the higher output and marketings help to keep handling and processing industries active both within and outside the district.

Except for agriculture, the midyear economic picture was significant for the conspicuous absence of any weak spots of consequence. Record construction activity, high employment, high spending and consumption as indicated by bank debits, department store sale fig-
ures, and new auto registrations—
all combined to form an integrated
pattern of economic growth and
expansion for the first half of the
year.

The consistency of the pattern
suggests that this growth and pro-
gress can be expected to continue
during the second half of the year.
Yet, it is significant that the dis-
trict's partnership role in the resur-
gent national prosperity has been a
relatively moderate one. Although
district economic measures com-
pare favorably with a year ago,
their improvement is generally less
pronounced than for the nation as
a whole.

Construction leads
business expansion

The large amount of construction
undertaken this year has contribut-
esignificantly to the rise of non-
farm employment and payrolls in
this district.

The valuation of building permits
issued during the first half of this
year totaled 41 percent more than
in the first half of 1954. June figures
showed no evidence of a slowing
down, with permit valuations 59
percent higher than in June, 1954.
This indicates that the construc-
tion industry had a large backlog
of projects at the beginning of the
third quarter.

The expansion in construction
activity has taken place in both re-
idential building and all other types
of construction. Contracts awarded
for residential building in April and
in May were up 47 percent and 61
percent respectively from the cor-
responding months of 1954. Con-
tracts awarded for all other types
of construction in March were
almost double the amount of a year
ago. In April and in May the in-
creases over year-ago totals were
not so impressive, but in June the
large number of building permits
issued for projects in excess of
$100,000 suggest that the increase
over a year ago was probably high.

The large demand for building
materials has created shortages in
some areas of the district, especially
in cement, steel, and sheet rock.
There has been a strong demand for
kiln-dried lumber, but in general
lumber has been in ample supply.

Employment on construction
sites has risen steadily during the
first half of the year. In May em-
ployment in the construction indus-
try exceeded by over 10,000 work-
ers the number employed in the
same month of last year. According
to figures available for the larger
district cities, labor employed on
construction projects continued to
rise during June.

District industrial
output rising steadily

Although employment in manu-
facturing firms has not expanded as
rapidly as on construction projects,
there has been a slow-but-steady
rise in factory jobs since the first
of the year. The kilowatt hours of
energy consumed by industrial con-
cerns is higher than a year ago.
These barometers indicate that in-
dustrial output in the district is
rising.

Pay raises and increased overtime
have raised weekly earnings of fact-
ory workers. For example, aver-
age weekly earnings in June rose
by $1.53 in Duluth, $1.51 in Minne-
apolis, and $1.12 in St. Paul.

Nonfarm employment
above last year

As a result, of additional workers
added to payrolls in construction,
manufac turing, and in service
industries as the vacation season
commenced, nonfarm employment
in all but one district state surpassed
the number employed a year ago.
In Montana employment in June
still was trailing the comparable
1954 total by 700 workers. On the
Upper Michigan Peninsula, em-
ployment has risen rapidly, but in
May, nevertheless, was about 100
workers below the total employed
in May, 1954.

More cattle
on feed

District states shared in the 13 per-
cent increase in the July 1 number
of cattle on feed, reported by the
U. S. Department of Agriculture
for the 13 major feeding states.
This category of states includes
Minnesota and South Dakota in the
Ninth district. There were respec-
tively 7 percent and 17 percent
more cattle on feed compared with
a year ago in those states.

In the 9 corn belt states the July
1 increase was only 10 percent,
with California, where numbers on
feed were up 33 percent from last
year, accounting for more than its
share of the national increase.

Both the number of cattle mar-
keted for slaughter and the number
of cattle moving into feedlots since
April 1 have been substantially
above a year ago.

District figures indicate an in-
creased volume of beef production
and marketing from these two
states in the months ahead.

Favorable
crop prospects

The U. S. Department of Agricul-
ture's estimate of crop production
in 1955 for the district offered
hope for a larger total production
than last year. The corn crop, al-
though still a long way from har-
vest, would be the district's largest
if present yield estimates material-
ize. An estimated 455 million bush-
el harvest is forecast compared with
the previous record of 442
million in 1948.

Wheat production, even though
under restricted acreage, is esti-
mated higher than last year.

The Durum crop is estimated at
13.3 million bushels, compared with
an actual 5.6 million last year.

Despite early dryness, recent
weather has been favorable for crop
development. Unofficial estimates
suggest less damage from rust than
farmers suffered last year. Natu-
urally, some of the estimates may
be subject to considerable adjust-
ments before harvest is completed.

MONTHLY REVIEW July 1955
ECONOMIC BRIEFS

SIGNIFICANT HAPPENINGS IN THE NINTH DISTRICT

1-Billings Oil Refinery Expansion

A million-dollar expansion program is being planned for the Billings refinery of the Continental Oil Company. The program calls for construction and installation of new gasoline reforming and desulfurizing equipment. Approximately 100 men will be employed to do the work, which is scheduled for completion by the end of this year.

The original refinery was built in 1949 at a cost of $9,500,000 and had a capacity of 7,500 barrels a day. Since that time, improvements have boosted capacity to 8,750 barrels a day.

2-New Pipeline for Montana

Already under construction, the Powder River Pipeline, which will originate in Northwest Sumatra Oil Field and terminate in the Billings-Laurel refinery area, may be in operation by September 1.

The six-inch line will be 78 miles long, tapping present production from more than 50 wells in the Sumatra field, and will pass the Amsden discovery in northeastern Yellowstone County. Potential capacity of the new pipeline is 15,000 barrels per day. Present production from the Northwest Sumatra field is about 4,500 barrels per day.

3-Edgemont Uranium Plant

Ground was broken in June to start the construction of a $2.5 million uranium processing plant at Edgemont, South Dakota, that will process an estimated 200 tons of ore daily and employ approximately 85 men.

The plant is being constructed to provide processing facilities for uranium ore, including that which has been stockpiled at the government-owned buying station in Edgemont.

4-General Mills Expands Research

Early in July General Mills, Inc., world's largest flour miller, announced plans for a multi-million dollar research plant on a 102-acre tract in the Minneapolis suburb of Golden Valley. The initial building will have 65,000 square feet of floor space and cost about $2 million. Plans call for eight to twelve separate buildings to be built in a park-like setting resembling a small college campus. The project will extend over a three to five year period and may run between $10 million and $20 million in total cost.

Research subjects will range from flour to bombsights and automatic machinery.

General Mills will also build a new office building on a 40-acre tract just 1½ miles from the new research project. Planning and construction are expected to take two to three years during which they may continue to occupy their downtown Minneapolis office (sold in February to a Chicago realtor).

5-Grocery Firm Builds

May Brothers Company, a wholesale grocery firm, has started construction of a $1 million office and warehouse building on two spur tracks of the Great Northern Railway in northeast Minneapolis. The new one-story building will have 200,000 square feet of floor space, nearly double that of the firm's present multiple-story building. It will include office space, a refrigerated produce department and an enclosed truck-loading area. Construction will be completed in about nine months.

The firm serves some 650 retail stores, mostly within a 150-mile radius of Minneapolis, and employs 200 persons.

6-$4.5-Million Stadium Begins

Ground was broken June 20 for the new Metropolitan Sports Stadium located in Bloomington, just south of Minneapolis. The first contract for $391,708 to cover excavation and grading work necessary on the site was awarded earlier in the month.

The stadium commission authorized payments totaling about $480,000 for the 160-acre site. Total cost of the initial phase of the stadium with a seating capacity of 30,000 is estimated at $4.5 million. (Expansion to 79,000-seat capacity is provided for if the need develops.)

Over $2 million in bonds has been subscribed locally, and an issue of about $2.5 million to preferred creditors is to be made through security dealers. Bonds are to be retired out of stadium revenues.

Objective of local sponsors is to provide facilities for major league baseball. Target date for completion of the stadium is June 1, 1956.