Rising bank deposit trend levels off

In the Ninth district as well as in the rest of the country, the demand for bank credit was particularly strong all through 1959. At the year's end, loans at all district member banks were approximately 13 percent higher than they were a year earlier. However, district bank deposits did not parallel the trend of bank loans and at the year-end total deposits at member banks were actually down 2 percent from December 30, 1958. This growth of loan demand and loss of total bank deposits in the district resulted in a loan-deposit ratio of about 50 percent at the year-end, the highest ratio since 1932.

To meet the growing demand for bank credit this past year, bankers found it necessary to reduce their holdings of securities, particularly 'Governments,' which at the year-end were 11 percent less than a year earlier. Also, an increasing number of member banks borrowed from the Federal Reserve bank.

The growth in loan demand during the past year has been fairly general throughout the district, reflecting in part optimism generated by the economic recovery both here and for the country as a whole.

It has been observed, however, that most of the district's economic indicators toward the end of the year continued to show somewhat smaller gains, or greater losses, than did corresponding economic indicators for the entire United States. In fact, the divergence in economic trends became more discernible as the year progressed. Nevertheless,

Measuring income—a new series

Introduction of a new statistical measure of economic activity for the Ninth Federal Reserve district . . . page 7
most of the economic indicators at or near the year’s end were on the plus side compared with year-earlier figures. These include such important measures as employment, building permits, total retail sales, bank debits and personal income (the latter statistic is available for Minnesota only). The trend in cash farm income in early 1959 was approximately the same as in the country as a whole but for the month of November district farm income was 13 percent below the same month a year ago compared with a 4 percent increase for the United States. District drought conditions during the past summer probably reduced district personal income around 3 percent, assuming that without the drought crop production would have been about the same as it was in 1958. The combination of drought and strike effects may have reduced total district income nearly 4 percent in 1959 from what it might otherwise have been.

Since agriculture and mining are relatively important phases of the district economy, loss of personal income because of drought and strikes were, no doubt, significant factors in the decline of total bank deposits at district member banks by late 1959.

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

DISTRICT BANKING IN 1959
PARALLELS U. S.

In most respects, banking developments in the Ninth Federal Reserve district during the year 1959 resembled banking developments nationally. Thus city banks and country banks both in the district and in the nation as a whole reported fairly substantial additions to their loans during the year. And, while total deposits both in the district and in the nation fell during the year, country bank deposits rose slightly both here and elsewhere in the nation. The fact that total member bank deposits in the nation did not rise, as they did by over $12 billion in the year 1958 reflects, in part, more restrictive monetary policies in the year 1959 than in the recession year of 1958. The loan growth at member banks during 1959 brought the ratio of loans to deposits to the highest levels since well before World War II. This is true of city and country banks both in the nation and the district.

Member banks in the Ninth Federal Reserve district reported a decline of $109 million or slightly more than 2 percent for deposits in 1959. In the nation as a whole, member bank deposits fell by less than 1 percent. The greater proportionate decline in this district doubtless reflects the adverse weather and lower prices experienced by the relatively important agricultural economy as well as the interruption of incomes in the mining regions of the district owing to the steel strike.

Deposits of city member banks (weekly reporting) fell by $116 million or 6 percent during the year—the largest such decrease experienced since well before a decade ago. About half the city bank deposit losses represented withdrawals from accounts owned by banks. City bank time deposits fell $5 million. Country banks in the district lost $44 million of demand deposits during the year but gained $51 million of time deposits, thereby showing a $7 million or one-fourth of 1 percent gain in total deposits for the year. In contrast to the $46 million increase of time deposits at all member banks in the district during 1959, in 1958 time deposits grew by $171 million.
Loans held by district city and country member banks rose substantially in 1959—by 17 percent and 10 percent, respectively. This compares with a national gain of 15 percent and 12 percent for city banks (central reserve city and reserve city banks) and country banks, respectively. The bulk of the loan increase at district member banks occurred in the first half of 1959; thus the total increase for the year was $273 million, although the increase in the last half of the year amounted to $60 million.

PERCENT CHANGE OF LOANS AND TOTAL DEPOSITS AT MEMBER BANKS IN 1959

<table>
<thead>
<tr>
<th></th>
<th>Loans</th>
<th>Total deposits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michigan</td>
<td>+9.7</td>
<td>+0.9</td>
</tr>
<tr>
<td>Minnesota</td>
<td>+14.7</td>
<td>-3.4</td>
</tr>
<tr>
<td>Montana</td>
<td>+11.3</td>
<td>-1.4</td>
</tr>
<tr>
<td>North Dakota</td>
<td>+10.9</td>
<td>+2.0</td>
</tr>
<tr>
<td>South Dakota</td>
<td>+12.7</td>
<td>-2.0</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>+7.6</td>
<td>+1.8</td>
</tr>
</tbody>
</table>

These loan and deposit trends have reduced the liquidity of the banks. Securities held by district member banks fell by $194 million or 9.5 percent in 1959. Another reflection of reduced liquidity appeared in the increased level of member bank borrowings at the Federal Reserve Bank of Minneapolis. Such borrowings averaged $31 million in 1959—more than four times the $7 million average of 1958. This compares with an increase of borrowings by all member banks in the nation from an average of $331 million in 1958 to an average of $795 million in 1959.

The above table indicates the percentage change of loans and deposits at member banks in each district state or part state. Loans increased from as little as 7.6 percent at member banks in Wisconsin to as much as 14.7 percent at member banks in Minnesota. The relatively large increase in Minnesota reflects a concentration in that state of city banks where loan growth was more pronounced than at country banks. Likewise, member banks in

Minnesota reported the largest proportionate decline of deposits, again reflecting the concentration of city banks where deposit losses were more common than at country banks.

WINTER WHEAT ESTIMATES ABOVE YEAR AGO

The U.S. Department of Agriculture estimates the district’s 1960 winter wheat acreage at 2,742 thousand acres, 8 percent above the level of a year earlier. Their 1960 production estimate for the district as of December 1 surpasses the 1959 winter wheat output by 29 percent mainly because of sharply reduced yields last year, particularly in South Dakota. The USDA December 1 estimate is based on the early condition of the crop as to germination and growth; while the final realization of the estimate is dependent upon ‘normal’ weather, disease conditions and insect damage.

WINTER WHEAT ACREAGE AND PRODUCTION ESTIMATES, 1959 AND 1960

<table>
<thead>
<tr>
<th></th>
<th>Acreage seeded</th>
<th>Percent change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1959</td>
<td>1960*</td>
</tr>
<tr>
<td>Minnesota</td>
<td>40</td>
<td>23</td>
</tr>
<tr>
<td>South Dakota</td>
<td>603</td>
<td>754</td>
</tr>
<tr>
<td>Montana</td>
<td>2,099</td>
<td>2,183</td>
</tr>
<tr>
<td>Total</td>
<td>2,742</td>
<td>2,960</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Production</th>
<th>Percent change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1959</td>
<td>1960*</td>
</tr>
<tr>
<td>Minnesota</td>
<td>574</td>
<td>552</td>
</tr>
<tr>
<td>South Dakota</td>
<td>6,750</td>
<td>14,362</td>
</tr>
<tr>
<td>Montana</td>
<td>46,350</td>
<td>54,575</td>
</tr>
<tr>
<td>Total</td>
<td>53,674</td>
<td>69,489</td>
</tr>
</tbody>
</table>

*December 1 estimate

The district experienced extremely variable weather during the fall planting season. Favorable fall moisture was received in much of the district,
and this resulted in improved germination and growth over a year ago in most areas. In Minnesota, farmers struggled to complete seedings at a late date as excessive rains hampered preparations for seedings; this, the USDA indicates, may have been the major factor cutting acreage in the state.

A LOOK AT SOME MIGHT-HAVE-BEENS

Two of the factors behind the somewhat poorer showing of our district compared with the nation in recent months were agricultural drought and the steel strike. In trying to appraise the final impact of these factors on our district, the following hypothetical observations resulted:

Had the previous year's crop yields for the district’s five major crops held good during 1959, actual 1959 prices and production expenses prevailing, then net agricultural income for 1959 would have been some $330 million higher than was actually recorded.

Had the steel strike not occurred, and mining and shipping, steel-making and steel fabricating continued at high pre-strike rates for their respective normal seasons, then income generated by these activities in the district would have been about $60 million higher than was actually recorded.

Summing up the impact of these factors, relative to total personal income in the Ninth district of about $10 billion annually, the loss from the two factors combined amounted to about a 4 percent setback from hypothetical ‘good’ conditions, the drouth being responsible for 3.3 and the steel strike for 0.6 of the 4 point loss.

As a contributor to the real lag relative to the U. S. experienced by the Ninth district, the agricultural situation was of even greater practical importance, since most of the adverse crop weather conditions were concentrated in this district. The strike impact, on the other hand, although hitting the Ninth district somewhat harder relatively than the U. S., showed up in the U. S. totals also.

LOWER HOG PRODUCTION EXPECTED

The nation’s hog producers plan a substantial reduction in the spring pig crop this year, according to the results of a recent U. S. Department of Agriculture survey of production intentions. Reports on breeding intentions indicate a 12 percent reduction in the number of sows to farrow during the spring farrowing period of 1960. If these intentions materialize and the number of pigs per litter equals the 10-year average with an allowance for upward trend, the 1960 spring pig crop would be approximately 52 million head, 11 percent less than 1959 crop.

District farmers plan to cut farrowings by 21 percent this year according to the USDA. The particularly sharp cuts in the Dakotas’ likely reflect, in addition to hog price considerations, the additional factor of reduced feed supplies because of the drouth last year.

SPRING SOW FARROWINGS DECEMBER THROUGH MAY, 1959 and 1960

<table>
<thead>
<tr>
<th>CROPS COMPARED</th>
<th>1959</th>
<th>1960</th>
<th>Percent change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minnesota</td>
<td>608,000</td>
<td>517,000</td>
<td>-15</td>
</tr>
<tr>
<td>North Dakota</td>
<td>96,000</td>
<td>62,000</td>
<td>-35</td>
</tr>
<tr>
<td>South Dakota</td>
<td>321,000</td>
<td>225,000</td>
<td>-30</td>
</tr>
<tr>
<td>Montana</td>
<td>20,000</td>
<td>19,000</td>
<td>-5</td>
</tr>
<tr>
<td>Total</td>
<td>1,045,000</td>
<td>823,000</td>
<td>-21</td>
</tr>
</tbody>
</table>

DISTRICT RETAIL SALES BELOW NATIONAL LEVEL

Retail sales in the nation generally remained strong during the latter half of 1959 in spite of the prolonged steel strike. The notable exception was the sale of automobiles which slumped in both November and December due to a shortage of new cars. In the Ninth district as a whole, retail sales lagged noticeably toward the end of the year. However, centers such as the Twin Cities and smaller ones that have been only nominally affected by the decline in farm income and by the
loss of income due to the steel strike had a level of sales in December about equal to the national level. Despite the economic setback caused by the steel strike, for the year as a whole department store sales in the nation were 7 percent above the 1958 level. Total retail sales rose to a record of $217 billion in 1959, an increase of 4 percent from the previous year according to an estimate released by the U. S. Department of Commerce.

December is normally the largest sales month of the year in department stores, accounting for 15 percent or more of the year's volume. Thus a record level of sales leading up to the Christmas season is especially significant to these retailers. Seasonally adjusted department store sales in the nation reached a new high in the past December, 151 percent of the 1947-49 average.

The seasonally adjusted index of district department store sales stood at 137 percent of the 1947-49 average in December, 2 points below the peak recorded in both June and August of 1959, but 1 point above a year earlier. Depressed sales in areas of the district most affected by drouth and strikes caused this decline in the index.

The volume of department store sales has fluctuated widely among the different economic regions within the Ninth district since last July. Southwestern Minnesota, southwestern North Dakota and central South Dakota experienced drouth which sharply reduced 1959 crop yields. The anticipated lower farm income was quickly reflected in lower department store sales and by December, sales in these areas were down as much as 12 to 17 percent from a year ago.

In the mining areas, department store sales have been down for the past two consecutive years as compared with other regions. Consequently, sales in the latter half of 1959 were not down noticeably from a year ago. Last December, sales in northeastern Minnesota, northern Wisconsin and Upper Michigan were equal to the year-ago volume.

In the Twin Cities metropolitan area, department store sales have held up about as well as in other parts of the nation. Last December, sales were 6 percent above a year ago. During the autumn season, they were up as much as 10 percent in September and 8 percent in October. In November, they declined to the 1958 volume which was due in part to the unseasonably cold weather.

Other economic regions of the district not affected by either drouth or by the steel strike have...
shown a percentage gain in department store sales about equal to that in the Twin Cities area.

Another important part of the district spending picture, the sale of new automobiles, has shown gains over a year earlier. In spite of adverse economic conditions in some regions which resulted in a low volume of local auto sales, new car sales during the last half of 1959 in the district as a whole exceeded those for the comparable period of the preceding year. Even in the four months from August through November, new passenger car registrations in South Dakota were up 5 percent from the same period of a year ago and in both North Dakota and Montana, by 18 percent. In Minnesota, the prosperous regions overshadowed the relatively small mining and drouth areas and registrations were up by 55 percent. In the states of Michigan and Wisconsin where the industrialized sections dominate the totals, registrations were up by 80 percent and 42 percent, respectively.

The influence of the depressed economy in a few areas also was felt on retail sales in the aggregate. The lower volume in these areas since last July was enough to reduce the percent increase from a year ago substantially in the district.

In the Bureau of the Census’ sample of Group I retail stores (which excludes sales of large retail chains), the volume of district sales in the four months from August through November was up only 4 percent from the same period of a year ago whereas in the nation they were up 7 percent. Among the different types of commodities, two categories consisting of furniture and appliances and of lumber, building materials and hardware held up well in the district with increases of 26 percent and 14 percent respectively from a year ago. On the other hand, the sale of general merchandise and of apparel increased by less than 2 percent. In general, consumer spending has risen but at a slower rate than in the nation.

### Federal Reserve Board Revises Index of Industrial Production

New features have been added to the Federal Reserve Board’s index of industrial production in its first major revision since 1953. The modernized index, which incorporates new data to provide better measures of physical output in the 1960’s, was introduced in the December issue of the Federal Reserve Bulletin.

One of the new features is the inclusion of a series on gas and electric utility production. Several series have been divided and many others refined. Another feature is the grouping of the 207 series into broad market categories. This provides a measure of flows of consumer goods as distinguished from the flows of business equipment into factory and plant capacity.

The striking differences in the components of consumer goods output is shown clearly in the new index. Consumer staples fluctuate very little, showing increases almost every month, while home goods and apparel show a strong tendency to follow periods of business recession and recovery. And automotive goods show extremely wide variations; output at the peaks is almost double that of the low points.

In addition to these features, the index has been revised to incorporate new benchmarks, and the components have been given new weights for combining the series. Also, the 1957 Standard Industrial Classification has been adopted for the industry groupings, and seasonal factors are revised.

The new index will be published on both a 1947-49 = 100 and 1957 = 100 basis back to 1947, although both series use the 1957 base weights. This provides historical comparability with many existing series.

The revision reveals that industrial output increased at a faster rate since 1947 than the old series showed, especially from 1950 to 1955. The index also shows that industrial production has fluctuated more than was previously indicated.
Measuring income - a new series

Every day thousands of individual money transactions take place in the Ninth district, each a part of someone's income, each a part of someone's spending. Daily these transactions are woven into broader patterns of income flow, the ups and downs, ebbs and shifts, seasonal swings and longer term trends of which form the dynamic element in our economy. By gauging our income patterns we gauge the pulse of our economic life, and the more accurately we gauge them, the more clearly we see our economic problems and potentials.

This task of 'gauging' or measuring district income was tackled during 1958 and 1959 at the Federal Reserve Bank of Minneapolis and work has progressed to the point where we are announcing a new statistical series on "Personal Income" to be published monthly from now on. At first the series will be available only for Minnesota, but it will be extended to other district states. The following discussion will explain the nature and uses of personal income statistics as well as some important considerations for the user.

Personal income: the nature of a measure

Personal income, as defined by the U. S. Department of Commerce, is the current income received from all sources by the residents of an area. Personal income is measured before deductions of income taxes and other direct personal taxes, but after deductions of individual contributions for social insurance programs. Income by its major sources is depicted in chart 1.

Pioneering work in the development of personal income statistics was done by the U. S. Department of Commerce. The Department publishes annual personal income by states each

Chart 1—Components of total personal income

<table>
<thead>
<tr>
<th>Component</th>
<th>1958 Estimate for Minnesota</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wages and salaries</td>
<td>$5,970</td>
</tr>
<tr>
<td>Property income *</td>
<td>748</td>
</tr>
<tr>
<td>Proprietors income / non farm</td>
<td>444</td>
</tr>
<tr>
<td>Farm proprietors income</td>
<td>487</td>
</tr>
<tr>
<td>Transfer payments**</td>
<td>143</td>
</tr>
<tr>
<td>Other labor income</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$6,468***</td>
</tr>
</tbody>
</table>

*Property income is composed of dividends, interest and rent.
**Transfer payments consist in general of disbursements to individuals for which no services are rendered currently, such as old age and survivors' insurance benefits and unemployment compensation.
***Net of $120 million contributions for social insurance.
August in the *Survey of Current Business*. The Department of Commerce also currently publishes monthly personal income data for the United States as a whole. The Minneapolis Federal Reserve Bank seeks to extend monthly personal income data to states in the Ninth Federal Reserve district.

**Personal income: the uses of a measure**

Personal income has many uses; most basic is that it provides a comprehensive and up-to-date index of the level of economic activity. It is a well-accepted and well-understood index and hence is easy to adapt and utilize. Not only does the index useful describe an area in terms of one set of economic yardsticks at any given time, but it also permits comparisons over a long period of time, hence revealing trends.

Then, too, it provides a basis for making comparisons, both current and over time, between, for example, the Ninth district and the remainder of the country, or among the states within the Ninth district.

When the index is combined with population data for an area, an index of ‘per capita’ personal income can be derived; such an index is a recognized basic benchmark in appraising the economic welfare of a region and its people.

Who might use these series? Well, for one, government policy makers might use them as a basis upon which necessary decisions and recommendations can be more intelligently reached. Such a series is likewise invaluable to the businessman; it provides a measure of purchasing power (even though the series represents ‘income before taxes’ and hence is not strictly equivalent to a ‘disposable personal income’ series). Companies may advance their understanding of why they are doing better or worse in a given area, and thus gain an improved basis for making sound decisions about the actions they ought to take in the area.

The ‘currentness’ of a monthly state income measure greatly facilitates the job of the decision-maker; he need not wait, say, till annual figures are available several months later. And of course, data provided on a state rather than a national basis assists the policy maker, since decisions are frequently made in a localized setting.

Thus, a company contemplating a new sales campaign in a given state may find that recent changes in personal income in that area affects its plans, or, a governmental unit in assessing the economic activity in a region may find that the current picture calls for a modification of earlier policies.

In summary, personal income by states on a current monthly basis should prove to be a most useful set of current statistics for a wide variety of purposes.

**Personal income by states: the making of a measure**

The development of a monthly personal income series for Minnesota was undertaken by a team of economists at the Federal Reserve Bank of Minneapolis. This undertaking was not without precedent. Such series had been experimentally constructed for other states, but to our knowledge had not been published on a regular basis. And, during the time the present series was in the process of construction, McGraw-Hill Publishing company began to issue a monthly personal income series by states—“Business Week’s Measure of Personal Income”—but with only a single total and no detail. Hence, we believe the series developed here is the first of its kind to run on a regular basis.

Three decisions were made at the outset of the project:

1. The personal income measurement framework employed would be that of the U. S. Department of Commerce. Use of this framework would permit a variety of comparisons not possible were an ‘independent’ approach utilized.

2. The data would be presented each month in the form of a ‘seasonally adjusted annual average.’ This statistic is interpreted as follows: ‘If this month’s figure, adjusted for seasonal factors,
were to continue for 12 months it would yield the annual amount in question. Since almost all personal income data available from other sources is on such an annual basis, this method has the distinct advantage of permitting immediate comparisons.

(3) 'Directly reported' rather than 'indirectly calculated' data would be sought wherever possible for reasons of accuracy and speed.

The basic nature of, and approach to, the monthly personal income series are easily described. The goal was to arrive at a dollar figure each month, representing total personal income in Minnesota expressed as an annual rate for that month. The method used was to try to estimate separately each of the components of personal income and then to add these together to reach the total. This method was considered more desirable than that of securing a total directly—more desirable for two reasons: it would be more accurate, and it would permit the presentation of detailed information on the components of personal income. As the project unfolded each component turned out to be an individual problem in measurement and each was tackled in turn by separate methods.

The most important fact to be noted about the problem of measuring personal income on a monthly basis is that nowhere are its components ideally recorded. Hence the 'solution' to the problem consists of making the 'best' estimates possible for each of the components which go to make up the total. The project thus turned into a game of 'hare and hounds' with the economists and statisticians involved searching out sources of statistics and seeking to work them into the best possible estimates. The particular procedures used will not be discussed in this article, but a summary description of the several approaches used in estimating various components of personal income on a state basis is published in the annual re-

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1 We are very much indebted to the many agencies which cooperated with us in supplying data and other assistance: without their help we could not have completed the project.
port of the Federal Reserve Bank. A copy of this report may be secured by writing to the Research Department of the bank.

The availability of the estimates

Although experimental estimates were run for earlier months, January 1959 was the point at which the Minnesota personal income series was put on a regular reporting basis. The estimates for January through December 1959 are presented graphically in Chart 2 along with U. S. Department of Commerce estimates. Back data is presented in tabular form in the annual report article.

These estimates will be run henceforth on a regular monthly basis, with, if present experience continues, no more than a month's lag. That is, figures for December 1959 would be available by January 31, 1960, and so on. It is planned to include them in Ninth District Economic Indicators, a monthly statistical release of the Federal Reserve Bank of Minneapolis. Those wishing to receive this release may be placed on the mailing list by writing the Research Department at the Bank and making this request.

Extension of the personal income series to the other states in the Ninth Federal Reserve district is under way. If our planning estimates are realistic, we hope to have the entire series operative by the end of 1960.

The estimates: the accuracy of the measure

Now, how accurate are these monthly estimates of personal income by state? To answer this question we must first answer two other questions.

1. How 'meaningful' is personal income as a measure of economic activity? No 'quantitative' answer can be given to this question. But we would suggest that while personal income is not the only index of economic activity, it is, given limitations of data, a most useful indicator. This judgment underlies the entire project.

2. Given the personal income approach, how 'accurate' are the U. S. Department of Commerce estimates? Two points merit comment. First, personal income data are not of the type which permit appraisal in terms of probabilities. Second, there is no way of knowing what 'absolute' personal income figures would be were an omniscient being to collect them.

Hence, it is no accident that the U. S. Department of Commerce comments: "The first question about any series of economic statistics relates to its reliability. The state income series is no exception, consisting as it does of 'estimates' which are subject to error. It must be recognized at the outset that the errors present in the state income estimates are not subject to quantitative measurement."

With this warning, the U. S. Department of Commerce then goes on to (a) indicate its belief in the general usefulness of the personal income approach but (b) again to warn the user to examine carefully the data so as to judge whether they can be employed in the manner intended. This position was accepted in developing state estimates by months.

We now return to the original question: if we accept the U. S. Department of Commerce personal income estimates as a benchmark, how close did our estimates come to the benchmark?

We employed two criteria in appraising our estimates. First, did the estimates 'call the turn'? That is, did they indicate an increase in personal income when other indexes exhibited this trend and vice versa? We regarded change as more important than a level for two reasons: (a) the personal income approach does not 'catch' completely all income items and, (b) for explicit (as well as some implicit) items the U. S. Department of Commerce makes annual revisions of its estimates which in some cases sizably affect the level. Second, we did keep in the backs of our minds a purely subjective belief that our estimates, to be acceptable, must be predictive of the U. S. Department of Commerce estimates published eight months later. The answers to the specific questions about our estimates are then as follows:

1. In essentially all cases over a twelve-to-twenty-four month period, our estimates turned
Chart 3—Federal Reserve Bank and U. S. Department of Commerce estimates of components of personal income in Minnesota, 1958

Up or down in line with estimates obtainable from other sources. Hence, we would suggest the monthly index provides a usable indicator of the trend of economic activity.

(2) With respect to the level of personal income and using 1958 as a year for comparison the two estimates run as shown in Chart 3.

In interpreting this chart, it should be kept in mind that for 1958 the two series are not completely 'independent.' This is true for several reasons: (a) various of our allocators and regression equations are tied to relationships resting upon U. S. Department of Commerce data and (b) the same sources of primary data are used, the U. S. Department of Commerce on an annual basis, ours on a monthly. The reader should keep this in mind as he notes the following facts.

Our estimates of personal income components tended to be both over and under the U. S. estimates and, hence in part to cancel each other out. This made the total more closely approximate the U. S. Department of Commerce figure than would have been true had all the errors been in one direction. Thus, while our estimate of nonfarm proprietors' income was 6.4 percent higher than the U. S. Department of Commerce estimate, the total pluses and minuses yielded a sum which was less than 1 percent different.

The major differences occur in those areas where the U. S. Department of Commerce secures a state estimate by 'allocating' a national total, and where in a subsequent year more recent information calls for a change in the allocator and hence in a revision of the estimate. The user of the Minnesota estimates should bear this in mind particularly in the other labor income and in property income components.

Though there are limitations to the uses of personal income statistics, the new series should provide a good basis for analysis of current directions in economic activity. Because of its availability monthly by states, the usefulness of the series should be greatly enhanced.

—John G. Turnbull
Economic Briefs

1. New lumber plant at Missoula, Montana
   A $350,000 factory for producing lumber is nearing completion in Missoula, Montana. The new plant, owned by the Intermountain Lumber company, will be equipped with finger-jointing machines which cut saw-tooth grooves across the ends of short boards and glue them together. It also will have machinery to increase the firm's production of other lumber products. The 38,000-square-foot factory will have a one-shift capacity of 3,000 board feet.

2. Billings, Mont. shopping center to expand
   A $3½ million expansion program is planned for the West Partington Park shopping center in Billings, Montana. Construction will begin April 1 and is scheduled for completion October 1. With the addition, total investment in the shopping center will exceed $7 million. The largest of the new units will be occupied by a Sears Roebuck & Company department store.

3. Fergus Falls, Minn. power plant enlarged
   An $11 million addition to Otter Tail Power company's plant at Fergus Falls, Minnesota has been completed. The 53,500 kilowatt steam generating plant is the largest in existence using North Dakota lignite coal as fuel. The plant will consume more than 1,000 tons of lignite daily.

4. Soybean plant slated for St. Cloud, Minn.
   A $500,000 soybean processing plant is slated for St. Cloud, Minnesota. For a plant site, Central Minnesota Processors, Inc. has agreed to purchase the six-acre Liberty Granite property three miles west of town and is taking options on an additional 33 adjacent acres. The new plant will have a capacity of about 3,000 bushels of soybeans daily. Until now most of the 5-million-bushel soybean crop produced in central Minnesota has been processed at plants in the southern part of the state. About 24 workers would be employed year-round in the new industry. The processing firm already owns and operates a food canning plant in St. Cloud which employs 7 year-round workers and 100 to 200 during the canning season.

5. Minnesota paper plant begins production
   Production of corrugated paper board began in January at the new $1½ million Owen-Illinois Glass company's plant near Shakopee, Minn. The plant initially has 65 employees. Full production is scheduled to start in February and will require 125 employees. The 153,000-square-foot plant has a capacity of 40 million square feet of corrugated paper board on a 24-hour production basis. The firm formerly operated a paper products plant in St. Paul, Minnesota.