I take pleasure in reviewing with you the Federal Reserve Bank's interest in regional economic development, for that subject has long been one of keen interest to me. To put that interest in proper perspective, however, it will be helpful to spend a few minutes discussing the broad objectives and obligations of the Federal Reserve Bank of Minneapolis which is just one part of our central banking system. These obligations and objectives logically entail certain restrictions and certain areas of relevant participation by the Minneapolis Bank in a general program of area development.

We perform a number of functions in the Minneapolis Bank and in our judgment they are all useful functions. The ones which are best known and the ones which employ the most people are our operating functions such as handling checks and money. There is no question but that these are valuable services and there is no real question but that they are typical central banking services. Our key function, however, is one that requires relatively few people and is the one function that is clearly identified with central banking the world over. The key function of a Federal Reserve Bank is to participate with the Board of Governors and the other eleven banks in formulating and carrying out monetary and credit policy. The major difference between the Federal Reserve System (the central bank of the United States) and most other central banks is that our System is organized along regional lines with a Federal Reserve Bank in each of twelve districts. To my mind this regional organization is one of the great strengths of the Federal Reserve System for it permits the evolution of a national monetary policy framed with an appreciation of regional differences.
Each of the Reserve Banks attempts to keep itself informed as to the structure of the district economy and its credit institutions, as to current developments in its district, as to the impact of district developments upon the national economy, and as to the impact of national developments, programs and policies upon the district economy. Against this background of information and understanding the representatives of the Reserve Banks and the members of the Board of Governors discuss and consider the national economic and credit situation and thus formulate national monetary policy. That policy is formulated with awareness of and with sensitivity to the facts of regional economics. I believe we get a better national policy in this way. In viewing the role of the individual Federal Reserve Bank in area development then, it must be borne in mind that the bank is an integral part of the Federal Reserve System.

As I see it, the Federal Reserve Bank of Minneapolis has, as does any other Federal Reserve Bank, three direct areas of practical interest with respect to economic growth and development within its boundary. The first is that of an operating agency performing a multiplicity of services and functions for its member banks in particular, and for the financial and business community in general. We are therefore beset, as are many of the companies you gentlemen represent, with the task of estimating future growth prospects, particularly for bank financial transactions.

Secondly, we have a personal stake in the health of the area's economy and in the successful results of those who promote its industrial growth - this simply as good neighbors in the business community. As officers and employees of the Minneapolis Bank, we are all residents of the area. From this springs a genuine interest in sound economic growth and in taking a cooperative part as individuals in the planning of local or area-wide research and development programs. We are faced with some natural limitations
in this work simply because we are a public rather than a private insti-
tution, but these are not particularly serious.

Third, and this is the area of interest on the part of the Federal
Reserve Bank of Minneapolis with which I propose to deal in the remaining
portion of my talk, is economic research. This research effort - broadly
defined as the job of measuring, analyzing and interpreting underlying
trends in the economy - is one which I am sure will be of direct interest
and value to the Upper Midwest Research and Development Council, in view of
the objectives expressed in paragraph 5b of the Council's basic document:
"To encourage preparation of statistical information bearing on the
economic growth of our area with analysis of same by existing organizations
and institutions."

Let's talk briefly then about the basic objectives of the research
function in the Federal Reserve Banks and see how this relates to economic
development.

The special characteristics of the research function in the Federal
Reserve System grow out of the special characteristics of the System itself.
The System is the nation's monetary authority and is endowed by law with
certain powers by which it can influence the supply, cost and availability
of credit for the purpose of producing beneficial effects in the nation's
economy at large.

The pursuit of this general objective makes it necessary that the
Board of Governors of the Federal Reserve System and each Federal Reserve
Bank engage in a program of economic research to which there are no a priori
limits, but only those imposed by canons of good judgment as to the value
of the results obtained in relation to the cost. The basic objective of the
research function, i.e., to provide the broad foundation of economic informa-
tion and analysis needed for intelligent policy action, is quite general in
character. In practice it resolves itself into the equally basic but more specific objective of developing a flow of statistical data and a fund of analytical and interpretative material in those special areas of investigation that are particularly important to the System in the discharge of its legal responsibilities. These fall into three areas: first, studies in the field of central banking and the commercial banking system; second, research in the development, maintenance, improvement and analysis of a sufficient number of significant statistical series to adequately depict current economic conditions and trends and current monetary and credit conditions and developments; and third, the analytical and interpretative study of the economies of the various Federal Reserve districts.

Statistics seldom carry their own explanation on their face. They are designed to answer the questions "what" and "when". For better understanding, however, they should be supplemented by studies answering the questions "why" and "where". The dissimilarity in the economies of the various districts, their different rates, patterns and directions of economic development, their different degrees of responsiveness to general economic changes, and the varying impact of System policies within these different regional settings, are all matters of which policy makers should be fully aware.

At the Minneapolis Bank we are carrying out research in each of these three areas. We perform, of course, a continuing analysis of the problems of central banking. We also meet the second group of objectives by carrying on a program of statistical measurement of the district economy including efforts to improve coverage and accuracy. Let me assure you, in reference to the paragraph from the Council's articles quoted earlier, that the Federal Reserve Bank of Minneapolis needs no encouragement in the preparation of statistical information, for we have long viewed this as
an important aspect of our work. We have recently given special emphasis to the third area - that of studying the economy of the Ninth District. Out of this emphasis has crystallized a longer term program of regional research. Both the second and third areas of research should prove interesting and useful to this Council. Therefore, let me outline and illustrate briefly the nature of these programs.

(1) **Statistical measures**

As you no doubt know, the Federal Reserve Banks have collected and published statistical series on business and finance for many years (releases on bank debits, building permits, and department store sales are illustrative). Currently we are working out a summary called ECONOMIC INDICATORS. This summary contains monthly data for the Ninth District and comparable national data for several business and financial items. Figures are given for both the absolute amount (i.e., dollars worth of department store sales or number of insured unemployed) and percentage change. This series of monthly measures will be as up-to-date at the time it is issued as we possibly can make it. The purpose is to provide a current gauge of the economic pulse, if you will, of our district.

Additional measures will be added in the future, and work on some of these has already been started. I will describe two.

**Personal income data.** A project which we have had underway now for some time concerns itself with developing a current measure of income to individuals in the Ninth District. Our very preliminary efforts are shown on Chart 1, where a monthly estimate of personal income has been built up from estimates of several components - agricultural income, manufacturing and nonmanufacturing wages, transfer payments and property income. I do not know yet whether we can carry this on with any accuracy but we do intend to continue working on it and one day you may see this as a regular part of our Economic Indicators.
Within the framework of income measurement there are many other ways of 'cutting the cake'. For one thing we might try to express total income, not from the standpoint of sources but from the standpoint of disposition of income - that is, how much of it goes each month into consumption spending and how much of it goes into saving. Or, instead of concentrating on district totals for small time periods (months), we might work with annual income totals, attempting to identify their occurrence by small areas (for example, by counties or county economic groupings).

By an additional step we may convert many of these income figures to ratios such as per capita income. This is, of course, already available by states on an annual basis from the Department of Commerce, as illustrated on Chart 2, here behind me. But, as you might imagine, estimates of this kind of indicator made, say, quarterly for each state, or made annually for each county, would provide additional working material for groups such as this. In short, we recognize that accurate and comprehensive measurement of income flows is a useful requisite to the kind of development work we all are interested in, as well as basic to the more refined study of our region's economy.

**Industrial Production Index.** I would like to mention just one other statistical project now under way in our research department. We are working on the development of a monthly industrial production index to augment our monthly economic indicators. For this we are drawing on experience accumulated at other Federal Reserve Banks to establish the appropriate techniques for building an estimate of industrial production trends in our district based largely on industrial electrical power consumption.

I think the foregoing comments are sufficient to acquaint you with the nature of our statistical measurement program. As you see, we hope to learn much more about the month-by-month performance of our district
economy. I am sure that you can identify many ways in which the Upper Midwest Research and Development Council may put to work these data as and when they become available, and in the same way the information may be useful to other groups. One of these is to compare growth among our district states and with the nation at large on a multiplicity of factors. A second way in which they might be used is as a diagnostic device, particularly where small area statistics such as county data are available over a period of time. One might, for example, utilize these data to identify low income areas or declining income areas. This is not to say that low income areas necessarily need 'booster programs' to raise income—rather they may simply be 'uneconomic' areas which need to adjust to a lower level of economic activity by the outward migration of population.

(2) Regional research

The activity we have just described, that of classification and measurement, is recognizably an elementary stage of research activity that forms a very helpful basis for more advanced work. Regional research as we see it, should go beyond this and seek to find the interrelationships between the factors measured and to identify underlying trends that may shed light on growth prospects. We at the Bank have carefully examined possible roles we might assume in pressing an imaginative and useful program of regional research. While we are still in the process of fully formulating this program it might be fruitful to outline the current stage of our thinking.

Within our program of regional research two broad though closely related divisions are recognized; these are: Income studies and resource studies.

(a) Our interest in income studies springs from a number of directions. In the first place, this is directly related to the other
aspects of income payments I mentioned earlier. Also in our modern ex-
change-dependent economy, money flows have an especially intriguing
property in that they often trace out in reverse direction the transactions
of economic goods and services. Each element of flow represents someone's
receipts and someone else's expenditure. Consequently, careful study of
these movements should reveal much about the geographic patterns of
economic activity and the interrelationships among the various segments
or levels of our economy. And, of course, the fact that flows of money
via check routing are a bread-and-butter aspect of our operations, that
money itself is a direct part of our operations and policy, and that many
statistical records of this movement are directly accessible to us, makes
the study of money movements and income flows a very natural one for us.
Preliminary work has already been accomplished within the Federal Reserve
System on the subject of interregional flow of funds.

In our examination of income flows in the Ninth District a very
broad spectrum of possible studies presents itself for useful work. For
example, the relationship between income growth and industrialization of
an area is yet to be examined. What is the effect of growth and decline
in national income on district income? Why, for example, is per capita
income highest among district states in Montana and lowest in North Dakota?
What is the cause and what is the meaning of this situation? What is the
role of 'export' income for a particular small area? What is its economic
significance? What is the relationship between savings and income in our
district? Is the Ninth District a capital importer? I am sure that you
will recognize here research problems that would prove of interest to a
great many groups, public and private alike. Our plans call for early
efforts in some important aspect of this broad field of income studies on
a cooperative basis with universities and colleges. Our future plans will
make more room for cooperative effort with other research agencies in the district whereby we may mutually exchange ideas and share the fruits of work in areas in which we seek answers to common problems.

(b) Resource studies. I think it safe to say that understanding regional growth - how it has taken place and what its likely future course will be - is perhaps the fundamental objective of our regional research program. For this is really the dynamic framework within which our month-to-month analysis of business and our establishment of regional policies take place. What we are doing in our resource studies is to select a relatively small number of basic resource industries based on their income contributing potential for our district.

Let me illustrate this point by reference to our agricultural industries. You will note that Chart 1 indicates in a quantitative way the segment of monthly personal income in our district provided by agricultural enterprise. On Chart 3 the income from agriculture is broken down according to major source. These data would suggest that a study of 8 or 10 types of agricultural industries in the Ninth District will cover the great bulk of the income-generating sources in agriculture. Furthermore, by studying carefully and on an individual basis each of these industries - the physical, economic and resource factors underlying them, and the trends that have operated within them - we can by adding up the effects thus noted, assemble a much better picture of the prospects for agriculture as a whole in our district. You can see that the major source of income is cattle and calves, accounting for 23 percent of total agricultural cash receipts in 1956. Dairying, second among "livestock and its products", has declined relative to other sources since prewar times.

Cattle and calves (actually two separate industries: range beef production on the one hand and feed-lot beef production on the other) has increased
since prewar times the share of district income it supplies. As part of our regional research program, then, we have already begun an analysis of some of these major industries and some work on this score may be forthcoming this year.

We have grown aware, by virtue of many requests for information that come to us very frequently, that there is keen and growing interest on the part of firms both inside and outside the district in prospects for this region. A number of firms studying the possibilities of decentralizing into this region have come to us seeking objective facts about the potential of one part or another of our district. It has been somewhat embarrassing to be unable to supply them with the kind of 'hard-headed' facts they have wanted. They would ask, for example, "We've heard about your oil development out here in the Williston Basin, but what is this going to mean for the area in terms of future spending power? How many jobs is it going to provide in, say, ten years?"

Or, "We've heard about this taconite development, but where's the growth potential here? Isn't this just a replacement activity? How is this going to affect Minneapolis?" Well, the unfortunate fact is that no really good appraisal of the dollars and cents meaning of these developments to the area, or their employment and income possibilities exists, in spite of the great volumes of publicity that have gone out referring to "Billion dollar investment", "Coming boom", and the like.

This is the sort of gap in information that we hope to help fill, and note that I said "help fill". We shall include as a part of our resource studies an appraisal of the future potential and prospects for several of these major income sources in the Ninth District.
We have chosen (or are in the process of choosing) what we gauge to be the key nonagricultural industries on which to concentrate regional analysis efforts. These resource areas are chosen because they are either actually or potentially important income generators in this region - an identical criterion to that used on the agricultural resources I previously referred to. By thus identifying only the key subjects for study, we feel we can limit the number of units of study to a practical scale of endeavor. Illustrative of the areas slated for systematic study are petroleum production, iron ore mining and beneficiation, and timber production.

Perhaps the most useful feature of this series of studies as we envision them, whether touching on agriculture, mineral resources or some other phase of industry, is this notion they will all be conducted with the advance idea of putting the individual parts together to form an integrated whole. The entire group of individual studies when completed may be bound together as a reference work covering the major primary industries in our district. Or for those interested in a certain area, say, western North Dakota, the selection of a few pertinent studies - range cattle, wheat, petroleum, and such - would provide basic reference material on the economy of that specific area for many special uses: evidence at public hearings, industrial promotion, to name a few.

Well, that in brief is our regional research program and it is clearly a large order. So much so that you may have concluded by now that either we have a staff of virtually unlimited proportions, or we are uncontainable dreamers. Let me assure you neither is the case. The saving feature here is that it is not necessary - nor even desirable for that matter - that we do all the work. In the first place, such an undertaking requires the contribution of many specialized skills, for, of course, the analysis of any resource must be based on sound physical appraisals, on an
understanding of the technical factors in the field, as well as on an appreciation for the broad economic factors involved. Fortunately much basic material is already available, and a great number of separate appraisals varying from comprehensive to specialized in scope exist in the literature. We ourselves have carried out some amount of resource study in the past and will, of course, draw on this as well as on all existing work known to us. But in addition we feel the wide interest in this project makes it possible and practical to carry out many aspects of this research in a cooperative way.

To summarize, you can see that the Federal Reserve Bank of Minneapolis does have an interest in our area's growth, and that this interest expresses itself largely through the medium of regional economic research. In fact, economic growth in this district is essentially the theme of our regional economic research program.