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ECONOMIC GROWTH

I have chosen as my subject for this talk "Economic Growth" partly because it is topical and partly because it is a topic in which I have a deep and long time interest. That interest, incidentally, is one that has been shared by a great many people over a long time. Many of them would not recognize the term "economic growth" which is a relatively new expression. I used to talk about "economic development"; others called it "expansion" or "a bigger pie" or "the sky's the limit". When Jim Hill built the Great Northern, when the Mesabi was opened up, when the cattle and wheat country was developed, there was not much talk of "growth" or "growth rates", but this was economic growth in fact and it produced the "bigger pie" and the "better life".

What I hope to do in this talk is to put this matter of economic growth into perspective for you and to suggest some things that, in my opinion, can be and should be done and some things that should not be done to maintain and achieve economic growth.

In my remarks you will hear several references to two pieces of literature on economic growth: one, E. F. Denison's excellent and recent book "The Sources of Economic Growth in the United States and the Alternatives Before Us", and the other a series of eighteen articles in the October 20 issue of the NEW REPUBLIC. I commend both of these to you as well done and readable.

I begin by considering briefly some aspects of the nature, measurement and record of economic growth. The concept of economic growth is complex, and despite widespread discussion, there seems to be a great deal of opinion difference as to just what a correct concept is. Denison defines economic growth as the

increase in national product (total output) in terms of constant dollars (that is, with price changes eliminated from the figures), and states explicitly that he gives no consideration to economic progress in general or economic welfare, that no account is taken of leisure, changes in income distribution or uses of income. This definition has the virtue of being fairly explicit and it is a concept used by a great many people who study and talk about growth. It also has the virtue of being quantifiable in reasonably precise terms, that is, if one is willing to accept the concepts and measurements of national product. It suffers, however, from this very virtue because it is a rather narrow concept. General economic progress and welfare may be difficult to measure but they are of high importance to people. Income distribution and use do affect the level of living and the goodness of life and many people prefer at least some leisure to more in the way of tangible goods.

There is no need to labor this point, but one other related comment may be made even though it is obvious. The composition of the national product and the nature of the thrust which causes it to increase differ over time and between countries or regions. A national product geared to a free consumer society which is affluent differs from one geared to the same type of society but one which still has to meet mostly basic needs. And both of these differ from a national product geared to a war economy or to a society without much freedom of choice. Similarly the power of the thrusts to increase the product both in total or in specific part differ. It does not necessarily follow, however, that a high-powered thrust for a war economy or one in which freedom of choice is limited is <u>better</u> than a lower-powered thrust in another type of economy.

It is important to recognize two or three other points about the nature of economic growth. Here I talk in the narrow terms of national product and again cite Denison who points out that it is essential to distinguish between

growth of "potential" or "capacity" to produce and changes in the ratio of actual output to potential output. Capacity depends upon quantity and quality of labor and capital, on knowledge and its application, and on resources and their use. Changes in actual output depend largely on the relationship between aggregate demand and potential output. Changes in the national product between any two dates are governed by both capacity and demand, but the causes of change, interpretation of it and policy measures to be taken and their implications for future growth all are different.

It is quite common to hear references to the rate of economic growth in a given year. These have relatively little meaning. Year to year changes in national product vary greatly, as much as plus or minus 15 to 20 per cent, and changes of 8 to 10 per cent are not uncommon at all. These figures, incidentally, are for changes in real product; that is, without any price change effects. But changes from year to year reflect mainly changes in actual output or the effect of aggregate demand. Long term growth rates, those applying to 25- or 50-year periods, are much smaller in magnitude and changes in them are hard to achieve. Actually changes in long term growth rates of the order of 1/10 of a percentage point represent significant achievements. For the United States Denison computes that the annual average rate of growth from 1909 to 1929 was 2.82 per cent and from 1929 to 1957 was 2.93 per cent.

It is highly important to recognize this point if one is to be realistic about what can be done to achieve a higher long term growth rate. Denison lists 31 actions which could be taken to achieve a higher average rate of growth in the next two decades. I should note that these actions represent what I would call "reasonable" ones - that is, "reasonable" in the sense that they might be achieved. Not one of them could increase the rate by more than 1/10 of a percentage point and altogether they add up to less than 2 percentage points. Incidentally, not all could be followed simultaneously.

It may be of interest to point out something about these actions. Nine refer to measures concerning the size and quality of the labor force (e.g., 1-1/2 additional years of education, reducing the death rate of people under 65, reducing time lost by sickness, eliminating the waste due to crime, eliminating waste from racial discrimination, allowing more immigration, etc.) Taken altogether in the degree regarded as reasonably attainable, they would increase the long term growth rate by less than 7/10 of a percentage point.

Eight other actions would lead to more efficient resource use by eliminating restrictive and wasteful practices, trade barriers, fair trade laws, etc., and speeding up more widespread application of knowledge we already possess. Six actions would eliminate or reduce restrictive labor practices. These fourteen taken altogether would increase the long-term growth rate by just over 7/10 of a percentage point.

Three other actions look hopefully toward eliminating seasonal unemployment and reducing cyclical and structural unemployment significantly. They would add 1/4 of a percentage point to the growth rate. Five actions would affect capital and investment, increasing the volume of private investment by 25 per cent and of public investment by much more. These would add altogether less than 3/10 of a percentage point to the growth rate.

I have gone into some detail about this because it is of key importance to understand that a doubling of growth rates or even of increasing our rate of growth from 3 per cent to 4 per cent is very difficult to achieve. It would be quite a feat to increase the long term rate by 1/2 a percentage point. As noted, as Denison computes growth rates, it rose just 1/10 of a percentage point for the 1929 - 1957 period from the rate of the previous 30 years.

Another point that needs more general recognition is that economic growth involves a variety of costs. Among the articles referred to in the recent NEW REPUBLIC is one by Simon Kiznets on "How to Judge Quality". Kuznets says

"As a general formula, the desirability of as high and sustained a growth rate as is compatible with the costs that society is willing to bear is valid; but in using it to judge economic problems and policies, distinctions must be kept in mind between quantity and quality of growth, between its costs and returns, and between the short and the long run." He then wisely observes that a social consensus must be sought on what is needed and desirable and the way to attain such consensus, and more particularly how it can be made more intelligently responsive to changing conditions, is a problem that should be of continuous concern in a democracy.

Finally, in connection with incurring costs of growth, Kuznets identifies the direct costs (such as additional input in investment and training), somewhat less direct costs (such as adjustment of social institutions and patterns of human life and work), and such indirect costs as obsolescence of industries and areas and adjustments needed to soften these. The way in which such costs are met affects the rate and steadiness of the growth process.

I hope I have in this brief discussion conveyed to you that changes in the long term growth rate are hard to achieve, that small changes are significant and that growth incurs costs. I hope I also have made clear that growth should be taken to mean broad welfare and a better life, as well as more goods and services, and that many people, once basic needs are met, may prefer to take some of the fruits of growth in the form of more leisure rather than in the form of more goods.

I turn now to consider what contribution monetary policy can and should make to economic growth.

I begin with a quotation. "Monetary policy has an important contribution to make toward faster growth, but only as one part of a broader public program for growth that would include tax measures, expenditures, and debt management as well as monetary measures.....The monetary contribution would be

to exert a stabilizing influence on demand and prices; the initiating force in shifting output structure is most appropriately sought in other public agencies and in the private economy."1/

The above quotation makes it obvious that the Federal Reserve System regards economic growth as a primary objective of central banking. It also makes clear, however, that economic growth is one objective, or perhaps it is more accurate to say that it is a qualified objective (e.g., "orderly economic growth and a stable dollar"), that central banking contributes to growth through its stabilization efforts and its underwriting of money and credit flows, and that central banking's contribution is but one part of a growth program and not an important initiating force in such a program.

My purpose in citing this quotation and underlining certain phrases is to put the role of monetary policy with respect to economic growth into proper perspective. The direct contribution of central banking to growth is pervasive but general and lies mainly in the creation and maintenance of a money and credit climate in which growth can occur rather than in specific stimulants to growth. It is significant, I believe, that among Denison's list of 31 specific actions to increase our growth rate, not one is a specific action in the field of central banking, and only two or three have any connection with either money or fiscal policy actions.

I might summarize my position by saying that bad monetary policy probably will inhibit growth but good monetary policy will not guarantee growth. Good monetary policy is important, perhaps vital, to growth, but the initiating forces for growth are found in other areas.

1/ Answers of the Board of Governors to Questions of the Commission on Money and Credit, Question III, pp. 2-3; mimeographed document, 1960. To be published as part of the documentary papers of the Commission on Money and Credit.

Having, I hope, put monetary policy into perspective with respect to economic growth, I pass to some general observations as to the character of monetary policy. Most central bankers, I believe, would state that monetary policy is a pragmatic art rather than a precise science. Despite the work done over a long time, no single monetary theory provides clear and unequivocal guidance for monetary policy under all circumstances of time, place, and institutional characteristics of the economy.

This should not be taken to mean that there is no conceptual framework for monetary policy. Over the long pull, if we are to have high employment and a growing economy operating at or about at its current capacity, the required rate of real investment must be matched by a flow of real saving. This is true because economic resources are scarce and in a capacity operation resources going for investment purposes have to be taken from consumption purposes and saving represents withholding of spending from consumption.

Created money or credit, then, can be no more than a relatively short-run substitute for saving in financing investment. It can bridge temporarily gaps between the flow of current saving and needed investment when real resources are available because the economy is operating below capacity. It can aid in smoothing the resource allocation process even under an economy operating at capacity. Moreover, a growing economy needs an expanding supply of money and credit. It should not grow too fast for the economy to absorb, nor too slowly to fulfill its functions, and the amount of money which is appropriate seems to be influenced by the general level of liquid assets.

The role of interest rates in the conceptual framework of central banking is complex. Basically interest rates reflect the interplay of demand-supply forces in the saving-investment process and may be regarded more as an essential allocation factor in the market than as a deliberate goal of monetary policy. It is obvious, however, that monetary policy affects the supply of money and

credit and hence influences the level and pattern of interest rates. Any policies which would lead to interest rate changes, therefore, should consider their effect on both saver and investor, both lender and borrower. Thus neither high nor low rates are desirable or attainable at all times. In general, rates should be low enough to stimulate investment when needed and high enough to stimulate saving when needed, as well as flexible enough to serve the resource allocation function.

The point I am trying to make by this brief excursion into the role of central banking in the growth process and money and interest rate theory is, of course, that creation of excess money and any attempt to force uneconomic interest rates will not contribute to economic growth and probably will inhibit it. And here I believe it is instructive to look at growth experience in other countries, compare it with U. S. experience and relate it to monetary and fiscal policy.

First, I refer to another of the NEW REPUBLIC articles, this one by Edwin Dale of the New York Times entitled "Has Europe's Success a Moral?" Mr. Dale points out an obvious but often overlooked fact that one can find almost any kind of economic policy mix one can imagine in recent European experience, and associate that mix with high or low growth rates. In general, however, he notes that Europe has had high profits, high taxes on lower income groups, high government spending and relatively small budget deficits. He calls attention to the "catch-up to affluence" aspect of growth in Europe and says that to some extent it seems that "prosperity breeds prosperity".

Second, I refer to some recent analyses I had occasion to do in connection with a study of central banking and economic growth. In these analyses study was given to data on economic growth as measured by industrial output and real national product, both total and per capita; to price performance, as measured by the cost of living, and to monetary policy as shown by changes in the y and interest rates. The data covered nine countries over the period ugh 1961. The results, I believe, are instructive.

Four of these countries are Common Market members whose growth performance in the 1950's has been very impressive and which often are cited as examples for the United States to study in its pursuit of higher growth rates. Also included are two rapidly growing Asian countries: Japan, the foremost industrialized state in Asia, and Taiwan, an underdeveloped nation with a very high growth rate. The United Kingdom is on the list; it has shown a lagging growth rate but is one of the two great reserve currency nations of the world, as well as a great industrial power. The United States and Canada complete the list, the former for obvious reasons, the latter as a well-developed Western Hemisphere state which has undergone a financial crisis.

This list of countries is designed to be illustrative rather than exhaustive, although I do not believe that large scale extension of the list would make the points illustrated much, if any, more definitive. The countries included represent mostly the highly developed industrial states and their experience can be most easily and exactly compared with that of the United States. I have included Taiwan as a special case, almost an extreme. It is a nation with no significant natural resource base but one which through unusual circumstance has an extraordinary supply of educated and managerial talent and which has been able to largely ignore (although it is certainly aware of) balance of payments problems because of massive injections of United States aid.

Now I shall have to burden you with a few figures. We consider first merely the record of growth in these nine countries and begin with 1938 simply because it was the last prewar year. It probably would be even better to go back to 1929, just before the depression, but unfortunately comparable data are not available. Our second reference date is 1948 which we take as beginning the postwar boom. Our third date, 1957, marks the end of a decade of expansion and capital goods boom in the United States. The last reference date, course, the latest year for which annual data are available.

In the 1938-48 period only the United States and Canada show appreciable growth. In the U. S. industrial production increased 121 per cent and per capita real product 50 per cent. The comparable figures for Canada were 83 per cent and 52 per cent. These nations were the "Arsenals of Democracy" and expanded sharply to serve the Western Allies as production centers. They also suffered none of war's physical devastation. In sharp contrast to this experience, Germany and Japan were savagely mauled by war and much of their industrial base destroyed. In 1948 West German industrial output was 47 per cent below 1938; in Japan it was 63 per cent down. Per capita product was off 16 per cent in Germany from 1936 to 1949; in Japan it was down 44 per cent from 1938 to 1948. England and Holland showed very small growth in the period; they were less touched by physical destruction than France and Italy which just about stayed even. In those four nations the strength of war demand was about offset by war's destruction. In terms of industrial output 1948 was 15 per cent ahead of 1938 in Holland, 11 per cent ahead in England, 7 per cent ahead in France and 2 per cent ahead in Italy. Net product figures tell about the same story.

In the 1948-57 period the war-torn nations worked, with massive United States help, to rebuild capacity and meet current and deferred demand. They not only had to make up for war's destruction but also for some of the gap in growth that resulted from the depression of the 1930's. The United States and Canada had no wartime gap to overcome and actually had made up some of the depression gap during the war years. Nevertheless, they too had deferred civilian demand to meet and showed substantial growth in the period. The United Kingdom suffered from many complex economic maladies and special conditions; it lagged severely. In Taiwan the Chinese Nationalists worked to create a new nation.

Let us go back to the figures and here deal only with per capita real product since the industrial production figures tell the same story. Per capita product in Germany rose 79 per cent and in Japan 111 per cent in the decade.

In Taiwan the gain was 82 per cent. Italian and French growth was 58 and 52 per cent, respectively. In the Netherlands and England it was 34 and 25 per cent, respectively. Canada and the United States showed the smallest gains: 21 and 18 per cent, respectively.

To some degree the same forces continued to work in the last period, 1957 to date, but their strength was diminished. Japan shows the highest growth rate, followed by Italy, Germany, Taiwan, the Netherlands, France and England, in that order. In the United States and Canada per capita product grew only nominally.

Taking the period as a whole, however, the United States and Canada show more growth in real product per capita and as much or more in industrial production as do the Western European states and the Asiatic countries. Only the United Kingdom shows a tendency to lag. Using the prewar year as a base, growth in Germany, France, Italy and Japan, impressive as it has been, is less striking than that in Canada and the United States.

My citing of the above record is not intended to deprecate the fine performance of Western Europe, Japan and Taiwan in the 1950's, nor to serve as a basis for complacency about the United States record. I think, however, that the United States (and Canada, also) have done better than some of the apostles of growth admit, and that the easy assumption that Western Europe and Japan have broken through to a new era in growth rates needs to be demonstrated over a longer period of time.

For the second part of the analysis we need consider only the postwar period and here we deal with growth, prices, interest rates and money volume. When we arrange data on national product, per capita product, cost of living, interest rates and money volume by periods from 1948 to 1961, some other interesting results emerge. Here I shall not bother you with figures at all but merely indicate the results. Relatively high growth rates tend to be associated

with relatively low price increases, which in turn tend to be associated with orthodox stabilization programs which were used flexibly and forcefully. West Germany and Italy began such programs in 1948; the Netherlands and Japan in 1951, France not until 1959. The United States, United Kingdom and Canada followed such policies throughout the period.

Taiwan, alone among the nations studied, has not followed an effective stabilization program, although recently some efforts have been devoted to that end. Taiwan, as noted, is a special case, but, in another sense, is representative of many other underdeveloped nations. Taiwan has pursued extremely expansionary programs almost without regard for cost. Under ordinary circumstances these would have resulted in foreign exchange crises and very drastic stabilization measures or bankruptcy. In the case of Taiwan, United States aid largely offset the foreign exchange drains, a situation not unknown in many other underdeveloped countries, particularly some of the Latin American states. It does not follow that policies such as those pursued in Taiwan contribute to growth; it merely indicates that it is helpful to be a strategically located underdeveloped nation if one wishes to be extravagant.

The analysis demonstrates that relatively low price increases may be associated with relatively high growth rates, and that the former have accompanied orthodox stabilization programs. This is marked for the 1948-60 period as a whole and for the sub-periods. Japan before 1952 and Taiwan throughout the period are the only real exceptions.

The analysis also indicates that neither inflation of the money supply nor an overlarge money supply produces low interest rates. Here the example of Taiwan is particularly instructive. A large part of the very high interest charge in Taiwan represents an inflation premium which lenders demand. Reduction of inflationary pressures and in the rate of increase in the money supply in the period after 1957 led to reduced interest rates. Recent Canadian experience also is interesting in this connection.

Neither does the analysis indicate any close connection between low interest rates and high growth rates or the converse. Instead, the rate pattern seems to indicate that rates reflect, or perhaps it would be better to say have been allowed to reflect demand-supply interrelationships and the marginal productivity of capital.

In sum , the major lesson to be learned from the data seems to be that monetary policy can contribute to growth through its stabilization efforts, or, at a minimum, that such efforts do not impede growth. The record in this respect would seem to be reasonably conclusive. Another lesson would seem to be that interest rate policy should be shaped to fit the situation, stimulating investment and/or saving as particular conditions arise.

I should make reference here to a point which I have given only casual attention in the preceding discussion. One of the features which has characterized the high growth nations in the postwar period has been a high level of investment. In part, as indicated, this has resulted from need to make up the depression gap and war destruction. In part it has mirrored the strength of postwar demand for consumer goods. It has not been inhibited by stabilization programs and it apparently has been fostered by fiscal policies which promote high profit levels.

A great deal of attention today is being given to the question of tax reform and tax reduction in this country. There seems to be general agreement that our present tax structure constitutes a drag on the economy and that reduction in the relative tax take and reform of the structure would be helpful in stimulating additional growth. I have no disagreement with this general proposition but I have one caveat to enter. The United States economy at present is operating at the highest level in history. It has not done as well as many people, I among them, hoped but it has done reasonably well. I do not believe that the economy needs the so-called "shot in the arm" tax treatment and therefore that

it would be well to approach the tax problem with respect and caution. We need reform and we probably need rate reduction for long term growth purposes. For my part I would press for the long-term gain rather than the short-term gain.

Now I want to make one final point about growth by referring to some economic development work being done right here in this region - the Upper Midwest. In this work I think may be found one of the real secrets of growth.

This region has a lot of territory, not many people and, in some respects, a lagging growth rate. The latter results mainly from the failure of new activity to provide enough jobs for people released from the great wealth resources of the region, agriculture, timber and mining, as those activities decline in relative importance. As a consequence there have been a heavy rate of out-migration and thus a below national average rate of population growth, pockets of structural unemployment, high welfare and educational costs, and slow growth in total income.

A lot of people have known that these things were happening and considerable concern has been expressed over them. Recently a group of Upper Midwest businessmen, under the leadership of J. Cameron Thomson, formed the Upper Midwest Research and Development Council. They raised some money among themselves and in addition obtained a major grant from the Ford Foundation. Together, funds approximating $1,500,000 were obtained. Working with the University of Minnesota primarily, but with other educational institutions in the region also, this sum has been "invested" in a major research study designed to find out facts and make projections of future trends, to distinguish the favorable and unfavorable trends and to discover alternatives which will strengthen the favorable trends and offset the unfavorable ones.

Then research ends and action begins, through a multitude of committees staffed with leaders in agriculture, industry, labor and public life, who will endeavor to bring the facts to the people of the region and secure popular support

for programs designed to increase economic activity in the region and thus provide more jobs and more income.

I have not time to go into detail about this effort but I want to tell you of just one virtually realized accomplishment - a Research Institute which should stimulate further one of our growth industries, electronics, and provide a catalyst for other growth industries by furnishing scientific and economic research facilities for all kinds and sizes of business as well as doing contract work for government-financed research projects.

Now my moral should be clear. The Upper Midwest Council believes in the old maxim that "God helps those who help themselves." This is dynamic capitalism at work. The great economist, Schumpeter, contended that growth came as a result of innovation and innovation required innovators. I call them "spark plugs" which fire the engine. Fortunately we have some spark plugs in this area, the engine will be fired; it then is up to us to keep it running and to accelerate it.

Now let me draw together the threads I have been spinning and weave them into a fabric.

First, growth is hard to define, harder to increase, and there seems to be no very precise formula to achieve and maintain a higher rate of growth.

Second, monetary policy can contribute to growth through its stabilizing effects and through provision of a flow of money and credit. Good monetary policy probably is a requisite for growth, as is good fiscal policy.

Third, it seems to be generally agreed that too high taxes tend to inhibit growth and therefore tax reform and tax reduction would be highly useful. It is important that both fiscal and monetary policy stimulate investment rather than retard it.

Finally, we need more "spark plugs". No matter how favorable the fiscal and monetary climate can be made to be, the innovators have to be present and they have to take action to rev up the growth engine. There is no good substitute for brains and energy.