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THE NUMBERS GAME

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The title of this talk is supposed to convey two thoughts. The first is that I am going to use a lot of numbers throughout the talk because I think it will be the quickest and easiest way to develop the points. The second is that numbers are tricky things to use and since there are so many numbers available nowadays it has become almost a game to select those favorable to the particular thesis one is trying to develop. One thing I hope to do today is to put some of the numbers that have been flying around pretty casually into better and firmer perspective.

GROWTH

The first theme I want to talk about might be called 'big effects from small numbers'. Here I want to talk about economic growth and economic growth rates.

It is highly important, in talking about economic growth, to understand that it occurs both because capacity increases and because demand increases. Either capacity or demand may limit growth at any particular point in time. Perhaps the most striking illustration of low capacity limiting growth is in the underdeveloped countries. Certainly the most striking illustration of low demand limiting growth is the great depression of the 1930's.

Let us look at the long-term U. S. growth record and at some reasonable estimates of the capacity of our economy over the next several years. So far this century we have been growing in real terms at an average rate of about 3 per cent a year compounded. That means that the total output of the economy in physical terms has doubled about every twenty-five years. We could have produced more than we did, if we had been willing to work longer hours, invest in more capital and if we had had more demand.

A very recent study put out by the staff of the Joint Congressional
Committee on the Economic Report has a chapter in it on potential rates of
growth. It does not attempt to forecast what growth will be. It merely
attempts to project what growth could be under varying and reasonable assumptions.

What this study shows is that over the next sixteen years this
economy of ours is likely to grow at the rate of at least 3.4 per cent per year
compounded, if we manage to do just about what we have been doing since World
War II has ended. On the other hand, if we are able to smooth out our ups and
downs just a bit more and maintain unemployment at not higher than 4 per cent,
the potential growth rate would be 3.9 per cent per year compounded. If we
could cut unemployment to 3 per cent, the growth rate would be 4.5 per cent
per year compounded.

Built into these growth rate figures are prospective population
increases and changes in number of hours worked. Roughly speaking, the average
number of hours worked per year has declined about 0.9 per cent each year on a
long-term trend. The projection allows for a future drop of about 0.5 per cent
per year. This does not mean that the work week of 40 hours will necessarily
decline. The average number of hours worked per year is affected by vacations,
number of holidays observed, and so on.

Now to come back to those little numbers I talked about that probably
don't impress you very much. Let me translate them first into terms of total
growth over the entire period, 1959 to 1975, and then into terms of billions of
dollars of gross national output.

With a 3 per cent growth rate, output in 1975 would be 61 per cent
ahead of today's output; a 3.4 per cent rate would make the increase 71 per cent;
a 3.9 per cent rate and the increase would be 84 per cent, a 4.5 per cent rate
and the increase would be 102 per cent. If we could grow at the highest rate,
4.5 per cent, the GNP in 1975 would be close to one trillion ($970 billion)
dollars, and there is no price increase in that figure. If we grow at a rate
of 3 per cent, it would be $200 billion less than that. These figures become
sufficiently big to be very impressive, I think.
From such evidence as there is, it looks as though the Russian economy is growing currently at about twice the rate of the United States economy - perhaps 6 per cent - per half 7 per cent a year. If you project either of these trends to 1975, you get a Russian output increased by 2 1/2 times with a 6 per cent growth rate, or by three times with a 7 per cent growth rate.

With due regard for the difficulties of comparison, the gross output of Soviet Russia today is approximately one-third as large as that of the United States. That means we have approximately $300 billion more in output in this country than the Soviets have. If you take the 3 per cent United States rate and the 7 per cent Russian rate, in 1975 this gap would be lessened and cut back to perhaps $250 billion. If we take a 4.5 per cent United States rate and a 6 per cent Russian rate, the gap would be increased to more than $500 billion.

Note now how tricky these numbers become. We can grow at a rate substantially smaller than the Russian rate and still widen, in absolute terms, the gap between our total output and theirs over the next 16 years. How can this be? It can be simply because we start from a much higher base and 4.5 per cent compounded of $480 billion is a bigger number than 6 per cent compounded of $175 billion. Now obviously this kind of thing cannot go on forever; eventually maintenance of these two rates will bring the bigger rate times its base into equality with and then above the smaller rate times its base. The key questions then are how long can the Russians grow at 6 or 7 per cent and can we really grow at 4.5 per cent. Remember that 4.5 per cent is really a capacity figure.

I cannot answer either of these questions categorically. On the basis of history I would say that the chances of maintaining a 6 or 7 per cent growth rate for a long time are fairly slim. In our very rapid period of
development in the middle 1800's we grew at a rate of about 4.5 per cent. If the Russians do that well over a sustained period, they will do very well indeed.

We can hit the 4.5 per cent rate again if we can keep demand high and reasonably consistent; if we suffer recessions, we will fall below it. And, one way to avoid strong ups and downs is to avoid excesses in demand in one period which lead to deficiencies in demand in the next. This means that we should try to produce sustainable growth and we should do so with a reasonably stable price level so as to avoid the income distortions and the speculations that accompany inflation and leave demand imbalances.

Finally, one thing we need to keep in mind is that we have to generate real and effective demand to absorb the output. That will come mainly from the private sector of the economy. We will have to and should increase certain government expenditures - for schools, for roads, etc., and this will absorb additional output. But we must guard against trying to get government to increase spending just to absorb output, and particularly we must guard against this being done, at least in good times, via deficit spending.

**THE USES OF GROWTH**

As I have stated, there is not much point in growing unless you have some demand for the additional output. Let us now take a look at what we do with our output and what we are likely to do with it 10 or 15 years from now.

In 1959 the gross output - the familiar Gross National Product - in this country was $480 billion. The major claimants on our output - the economic sectors that use it - are consumers, business, government, and foreigners. Instead of talking of use patterns by these claimants, tonight I want to talk in terms of actual uses - defense, investment, consumption of necessities and discretionary consumption.

Let us begin with investment since this is the thing that produces capacity for growth. It usually is thought of as being construction, producer's
equipment, inventory change, and so on - the use of physical goods to produce physical capital for bigger production tomorrow. But we should think also of another kind of investment - investment in human beings. In this investment process we plow money into education, into health, and into welfare. Of the $480 billion gross output of 1959, about $89 billion, or almost 19 per cent, went into conventional investment, both public and private. Another $52 billion, or 11 per cent, however, went into education, health, and other governmental programs. Thus Americans used just a little less than 30 per cent of their gross output to plow back into people and plant so as to provide a better base for more output tomorrow.

In addition to this, a little less than 10 per cent, about $46 billion, went for national defense. So if you take defense and both types of investment together, almost 40 per cent of gross output went into these two categories.

The balance of output was used up by consumers. (Actually, under conventional national income accounting, consumers used more than this, but I have classed expenditures on education, health, etc., as really being investment.) As I am defining it, consumers spent about $292 billion on consumption items in 1959. Something more than half of this went for so-called necessities - food, clothing and shelter. A little less than half went for discretionary uses, on automobiles and travel, on household goods and personal services, on charities and recreation, and so on.

To sum up then, the pattern of use of output today is about 10 per cent for defense, 30 per cent for investment, 60 per cent for consumption.

Now, let's look at what these patterns might be in 1970 and 1975. For this purpose we will take the middle range of the projections I was talking about earlier. Let's assume that we can grow until 1975 at a rate of 3.9 per cent per year compounded. Actually we need not do much better than we are doing now to achieve this. Fortune Magazine thinks this rate is too conservative and
projects a growth rate of 4.2 per cent for the next decade. Using 3.9 per cent, however, means that the GNP in 1970 would be $730 billion, and in 1975 would be $885 billion.

The important points to keep in mind about the uses of output 10 to 15 years from now are that if we want to continue to grow, we are going to have to continue to invest, both in material and in human resources, and we probably are going to have to step up our investment rate somewhat. Since we are using a little less than 30 per cent of our output today for this purpose, I am assuming that we will use more than this proportion, perhaps about 31 per cent in 1975, and that relatively more will go for investment in human beings.

Against today's $52 billion per year in human investment then, we should be spending about $88 billion in 1970 and about $115 billion in 1975. Investment in physical capacity is taking $89 billion today and should be up to about $130 billion in 1970 and about $160 billion in 1975.

Now let's be pessimistic and assume we will have to continue to spend heavily on defense measures. If we assume - and I hope this is an outside estimate - that roughly 10 per cent of our output should go for defense and its associated purposes, then we would be spending about $73 billion for this purpose in 1970 and $90 billion in 1975. The latter figure is about twice as much as the present level.

Consumption of necessities should not take as high a percentage of the total output in 1970 and 1975 as it does now. On a per capita basis such use should go up by about one-fourth, on a total basis it should be up by about 60 per cent in 1975.

The amount of output that is available for discretionary purposes, for what some observers have called "the good life", then should be a bigger
proposition of the total in 1970 and 1975 than it is now. Today we are using about $130 billion for these ends. Ten years from now that figure should be up by $90 billion, and five years from then by another $55 billion. Actually in 1970 it should about equal what would be invested in both human and natural resources, and even with a large population increase this will permit a very substantial increase on a per capita basis.

MEANS TO ACHIEVE THESE LEVELS

Now I want you to understand that all of these things are attainable without us doing much more than we are doing at the present time - if we are reasonable and sensible. We shall have to avoid deep recessions, but we have managed to do this pretty much since World War II. We shall have to keep about 90 per cent of the labor force employed. We are not doing quite that well at the moment, but we have done about that well in the entire postwar period. We shall have to continue, and even to increase somewhat, our investment program. But this does not involve any cutback in consumption, either of necessities or of fun goods.

I don't want to make this sound too simple, however, because there are some things that will have to be done - not very difficult things, but very important things. These actions that need to be taken consist more of using our heads than our muscles. In very simple form, what is required for the American economy to expand at this very satisfactory rate is for the people to exercise the responsibilities of citizens in a democracy operating under what is essentially a free market system. This requires (a) an attempt to understand the issues, (b) thoughtful appraisal of the future, that is, some reference to tomorrow as well as to today, and (c) a sense of purpose to make this country and the world a better place to live in. And it is im-
portant in this connection - of key importance, I would say, in the maintenance of our type of economy - to have this kind of purpose come from the grass roots.

I referred earlier to the need to keep in mind that we have to generate real and effective demand to absorb output. What we need to guard against is a lot of proposals to increase public expenditures for purposes that will not add to the real investment in human and physical resources, but will merely be designed to create some demand for output. That is not the way for the economy to grow.

**INTEREST RATES**

This leads me to another point that is of high importance: the need for savings and the role of interest rates. Saving serves the very crucial economic purpose of financing investment, which adds to productive capacity, which permits and promotes economic growth. A high level of saving depends on a high level of income, but the amount of saving also is influenced by the rate of return on savings. This rate of interest also is a factor in the demand for saving. In a real sense, then, the interest rate serves to equate demand for and supply of savings. It also serves to channel savings into more investment and into different types of investment, or into more consumption.

I do not intend to use any numbers in discussing interest rates for the points I want to make do not need such illustration. Rates are high today; at year's beginning they were higher than at any time since the 1920's. But the last few years are really the only times since the 1920's that two conditions have obtained: (1) high prosperity and consequent high demand for savings, and (2) reasonable balance in the money supply. In the 1930's we had depression and low demand for savings; thus rates were low. We
financed the war on a low rate structure that was pegged and continued the pegs throughout the 1940's until 1951. The results of this were a rapid run up in the money supply and substantial price inflation. We have had two mild downturns in the 1950's, but by and large the economy has been prosperous, demand for savings has been high and growth in the money supply has been kept within reasonable bounds.

There has been a lot of comment in recent years to the effect that low interest rates are good and high interest rates are bad. I find it difficult to judge interest rates in this fashion. What we want, in fact what we have to achieve, is an interest rate structure low enough to stimulate investment, high enough to stimulate savings, and flexible enough to serve the economic purpose of allocating funds, under varying economic conditions, to uses which will best promote the welfare and strength of the nation. Thus there is no given level of rates that is either good or bad in all instances; at times high rates are proper, at times low rates are proper.

I might comment in passing on the relevance of the above analysis to rates paid on Federal Government borrowing. In an economy where savings are voluntary, and where they have to balance investment over the long pull, the Government has no choice but to pay what is required for savings when it borrows. Normally rates on Government borrowing will be lower than rates paid by competing borrowers because the Government is a preferred borrower. But the Government cannot dictate the rates it will pay in a free economy, except in the short-run, and even then it may incur the costs of money supply inflation with nothing but transitory relief. It can, by intelligent debt management, lessen the day to day impact of its borrowing and hence, perhaps, in the long run lessen its borrowing costs. This is a primary reason why statutory
ceilings on interest rates on Government securities are unwise; they force debt management into unnecessarily confining programs.

**BALANCE OF PAYMENTS AND GOLD**

The last point I want to discuss concerns our balance of payments and our gold stock. Here, I do want to use a few more figures, but first let me define balance of payments. The balance of payments is a technical term that means the net difference between all flows of funds out of a country and all flows of funds into a country from abroad. It is a netting out of the value of exports and imports of goods and services, the value of investment going out and coming in, the income received and paid on such investments, foreign aid payments, and military expenses abroad. When the difference is "favorable" a country's holdings of gold or short-term foreign assets rise, when "unfavorable", these holdings drop. Over the long pull balance has to be achieved or the country runs out of gold and foreign exchange reserves.

We exported about $16.2 billion in goods and services last year and imported about $15.3 billion. But we spent about $3 billion in addition on maintaining our military efforts abroad (I'm not talking about foreign aid; this is our own) which, in effect, are imports since they represent goods and services purchased abroad. Our foreign investments totalled about $2 billion and we got back a substantial net in income from all investments overseas. Our foreign aid bill was more than $2 billion. The net of all this was that our balance of payments was "unfavorable" to the tune of about $3.7 billion. We settled this by foreigners increasing their holdings of dollar assets and gold. About $1 billion, or a quarter of this difference, represented gold outflow, the remainder represented increased holdings of dollar assets - bank balances, securities, etc.
Now just what do these developments mean? They do not mean that the United States is running out of gold and that the dollar is in danger of being devalued. One currently popular and mistaken line of reasoning runs like this. The United States has only $19 billion in gold. Foreign dollar holdings total about $16 billion. They could all be converted into gold which would leave us only $3 billion. By law, we need $12 billion to back our currency. Thus we have over-mortgaged our gold stock.

This argument is nonsense. We hold half of all the gold in the world (excluding Russia). Our ratios of gold to currency and to foreign claims on gold are higher than almost any other nation's. If we are over-mortgaged, everybody else is far more so.

Foreigners have to have bank balances in the United States just to do business. They invest in U.S. securities because they are profitable investments. The increase in their gold holdings represents a desirable build-up of their gold reserves rather than a run on the dollar. They are not likely to turn their earning assets into gold, a non-earning asset, unless they really do fear that the dollar will be devalued. And finally, we hold some earning assets abroad which are convertible into gold also.

But say the viewers-with-alarm: that may be true but we can't go on losing gold at this rate forever. That is a true statement but it does not mean much. Our loss in 1959 was less than half that of 1958, and the drain is smaller still so far in 1960. But the statement does bring into focus what are real matters of concern: the competitive position of U.S. goods and services in world markets, the importance of keeping our currency sound, and again the question of interest rates.

On the former point, it should be noted that a solution cannot be found through cutting imports. We are more of a have-not nation than we used
to be and we need our imports. Entirely aside from that crucial fact, cutting
imports is a game two can play, and at present we are more vulnerable than
are the nations to whom we export. What we have to do is to get more
competitive by keeping our costs down so that we can sell more abroad.

The importance of keeping our currency sound and the importance of
interest rates can be taken together. If foreigners lose confidence in the
dollar, they can convert dollar assets into gold. This is exactly like a run
on a bank. There is no reason to believe that they will do this, if we do
not cause them to lose confidence. Also, if investments and rates of return
prove to be more attractive elsewhere, some of these balances will shift to
other nations. The mechanics are: (1) conversion of dollar assets to gold,
(2) conversion of gold to other currency holdings. The net result is gold
outflow from the United States. So competitive interest rates are important
too.

The real point, of course, is this. We, like all other nations, are
now subject to the discipline of the balance of payments. We have to seek
reasonable stability in our currency and we have to get competitive.

CONCLUSION

These, I think, are the important things to consider in the longer
run outlook for the United States. We are going to have a good year in 1960,
but how many good years will follow and how good will they be. They all can
be pretty good if we settle down, tend to our knitting and stop smoking
economic opium that makes us believe that costs and prices are unimportant,
that inflation is a good way of life and that the rest of the world is of
little consequence to us.