93

WORLD ECONOMIC GROWTH AND COMPETITION

HEARINGS

BEFORE THE

SUBCOMMITTEE ON FOREIGN ECONOMIC POLICY

OF THE

JOINT ECONOMIC COMMITTEE

CONGRESS OF THE UNITED STATES

EIGHTY-FOURTH CONGRESS

SECOND SESSION

PURSUANT TO

Sec. 5 (a) of Public Law 304, 79th Congress

DECEMBER 10, 12, AND 13, 1956

Printed for the use of the Joint Economic Committee

UNITED STATES
GOVERNMENT PRINTING OFFICE
85589 WASHINGTON : 1957

For sale by the Superintendent of Documents, U. S. Government Printing Office
Washington 25, D. C. - Price 45 cents

CONTENTS

APPENDIX

WORLD ECONOMIC GROWTH AND COMPETITION

MONDAY, DECEMBER 10, 1956

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON FOREIGN ECONOMIC POLICY,
JOINT ECONOMIC COMMITTEE,
Washington, D. C.

The subcommittee met, pursuant to call, at 10: 10 a. m., in room 1301, New House Office Building, Washington, D. C., Hon. Richard Bolling presiding.

Present: Senator Ralph E. Flanders.

Also present: Charles S. Sheldon II, staff economist; James W. Knowles, staff economist.

Representative BOLLING. The subcommittee will be in order. The Joint Economic Committee has primary responsibility in the Congress for making studies and recommendations in the broad area of economic and business affairs as they affect the growth and the stability of the whole economy. This role is now familiar to most people, after more than a decade of operation under the Employment Act.

If ever the concept needed reinforcing, the idea is now very clear to everyone that international events can have a powerful influence upon the workings of the economy. We have seen in recent weeks both the relatively progressive and healthy economies of our allies in Western Europe and the economies of our friends in the Middle East, who had so much to hope for in economic development, face greatly changed expectations. War in the Middle East has brought a new economic crisis—with rationing, the threat of inflation, and new trade controls—to many countries that a few months ago had little reason to expect such disaster. And, certainly, on the other side of the Iron Curtain, unrest in the satellites and changed relations with the Soviet Union will have economic effects which may be far reaching.

It was this recognition, that international events and international trading relations can be of major importance to economic stability and growth, which led to the creation almost 2 years ago of this subcommittee. Even earlier, the full committee had sponsored a comparative study of economic growth trends in the Soviet bloc contrasted with similar development in the United States, Canada, and Western Europe. Much has happened since that time. The subcommittee, a year ago, conducted a general review of foreign economic policy principles to serve as a framework for later studies, and to provide the joint committee with perspective on the importance of international trade, investment, and economic development.

This year, in continuation of the study, it developed more completely the implications for the economy of the national-defense exception to unhampered international trade. No other part of the

Congress previously had had the occasion to explore so thoroughly the meaning of such policies to the Nation as a whole, even though some previous studies have done creditable work in assembling facts about a few individual critical industries in isolation from other aspects of such restriction.

At the same time, the subcommittee this year has also undertaken a fresh look at comparative economic growth in various parts of the world. This seems appropriate now that 2 years have passed since the previous study of this nature was made. These studies have two principal phases: First, we expect to release, sometime in January, a new study on the Soviet economy, comparing its economic strength and its growth trends, with the United States used as a yardstick. Having examined the draft which is now being subjected to final review, I believe it will perform a useful service in assembling in one place economic data with carefully weighed interpretations which should be extremely useful to all persons interested in our economic race with the Russians. There will be a public announcement as soon as printed copies are available.

Second, in furtherance of the studies of this subcommittee, the hearings opening this morning are designed to bring together highly qualified persons to discuss various aspects of worldwide economic conditions and international rivalries. With the future difficult to predict with any certainty, these gentlemen today and on the remaining days of the hearings will help us to identify major considerations likely to affect the future, to identify some of the big unanswered questions in the world outlook, and to make such other comments for us as world economic conditions suggest.

I am placing in the record at this point the press release and schedule of witnesses covering the present hearings:

[For a. m. release, Thursday, December 6, 1956]

CONGRESS OF THE UNITED STATES, JOINT ECONOMIC COMMITTEE

SUBCOMMITTEE ON FOREIGN ECONOMIC POLICY

Representative Richard Bolling (Democrat, Missouri) announced today that the Subcommittee on Foreign Economic Policy, of which he is the chairman, in continuance of its study of economic growth trends in various parts of the world, will hold public hearings during the week beginning Monday, December 10, to receive testimony from a selected list of witnesses qualified by their experience and responsibilities to discuss problems of economic growth on both sides of the Iron Curtain and their interaction with our foreign economic policy goals.

There follows Mr. Bolling's statement outlining the reasons for the hearings and a copy of the list of witnesses with the dates of their appearance:

"The Joint Economic Committee is charged with responsibility under the Employment Act of 1946 for making continuing studies of the growth and stability of the United States economy. International developments of the recent past have been so significant as to warrant a fresh look at economic conditions in various parts of the world to see what may be the implications for United States economic policy both at home and abroad.

"These needs were anticipated by the Joint Economic Committee in its report of March 1, 1956, which stated (p. 8):

" 'The subcommittee, therefore, during the coming year will continue its studies of (1) current economic trends behind the Iron and Bamboo Curtains, in the free world, and in the uncommitted regions of the world; (2) the nature, extent, and actual performance of Communist efforts in providing economic assistance to underdeveloped areas; (3) where present trends may be leading us and the broad implications for our economic policy, particularly foreign aid and investment policies * * *'

"This subcommittee soon will issue a staff study which is in its final stages of preparation, dealing with Soviet economic structure and growth, and making comparisons with the United States economy. Further details will be announced at the time the report becomes available for distribution.

"In further development of its assigned responsibilities, the subcommittee is holding public hearings designed to identify the issues associated with economic growth problems. The hearings are being organized under three headings: (*a*) Economic growth trends in the industrial nations; (*b*) economic growth trends in underdeveloped areas; and (*c*) the challenge of world economic competition and growth.

"The specialists who have been invited to appear will each present an oral statement, and then share in exploratory panel discussions, and receive questions from members of the subcommittee. If the results warrant a report by the subcommittee to the Congress, this would follow the hearings, based upon both a review of the evidence collected and the staff study on growth trends. In any event, the high caliber of the invited witnesses will make their testimony worthy of careful study by the Congress, the press, and the public."

The other members of the subcommittee are: Senator Paul H. Douglas (Democrat, Illinois), Senator J. William Fulbright (Democrat, Arkansas), Senator Ralph E. Flanders (Republican, Vermont), Representative Henry O. Talle (Republican, Iowa).

SCHEDULE OF PUBLIC HEARINGS ON WORLD ECONOMIC GROWTH AND COMPETITION

Monday, December 10, 1956, 10 a. m., House Banking and Currency Committee room:

Economic growth trends in the industrial nations

Dexter M. Keezer, director, department of economics, McGraw-Hill Publishing Co.: Growth of the United States Economy.

Solomon Fabricant, director of research, National Bureau of Economic Research: Significance and Shortcomings of Economic Comparisons.

Gregory Grossman, Russian Research Center, Harvard University: Growth of the Soviet Economy.

Harry Schwartz, specialist on Soviet and satellite affairs, the New York Times: A Comparison of Economic Growth in the Communist and the Non-Communist Worlds.

Martin R. Gainsbrugh, chief economist, National Industrial Conference Board: The Problems of Economic Projection.

Wednesday, December 12, 1956, 10 a. m., House Banking and Currency Committee room:

Economic growth trends in underdeveloped areas

Henry G. Aubrey, director of research on the economics of competitive coexistence, National Planning Association: Meaning and Importance of Economic Development in World Affairs.

Alexander Eckstein, department of economics, Harvard University: Red Chinese Development and Prospects.

John Sherman Cooper, United States Senate: The Development Effort of India.

Jerome B. Cohen, Bernard M. Baruch School of Business and Public Administration, the City College, New York: How Japan Developed, and Its Economic Outlook.

Willard L. Thorp, Department of Economics, Amherst College: International Aspects of Economic Development.

Thursday, December 13, 1956, 10 a. m., House Banking and Currency Committee room:

The challenge of world economic competition and growth

Henry L. Roberts, director, the Russian Institute, Columbia University: The Soviet Use of Economic Growth for Military and Political Purposes.

Hans Heymann, Jr., the Rand Corp.: Soviet Economic Growth as a Base for Trade and Technical Assistance.

Walter W. Rostow, Center for International Studies, Massachusetts Institute of Technology: United States-Communist Struggle in the Underdeveloped Areas.

Milton Katz, Harvard Law School: United States Foreign Economic Policy in Meeting the World Challenge.

Roy Reierson, vice president, Bankers Trust Co.: Implications of the World Challenge for the United States Economy.

Representative BOLLING. It will be our procedure to hear from each participant in turn, with a rather strict adherence to the tight time schedule we must of necessity follow. The subcommittee will minimize interruptions in these presentations except in the interest of clarification. After all five have been heard, there will follow a period of roundtable panel discussion and questions from the subcommittee. It is our goal to complete today's session during the noon hour, to avoid the necessity of returning this afternoon.

Before proceeding to the witnesses, however, I understand Senator Flanders has a statement.

Senator FLANDERS. Mr. Chairman, I sent to each member of this subcommittee a statement asking certain questions which would lead to more or less a complete reconsideration of the administration's trade policy. I likewise sent those questions to Mr. Hauge, to Mr. Burns, who without doubt transmitted them to Mr. Saulnier and to Mr. Sherman Adams in the White House because I felt these questions needed to be answered if the Congress was to go along with what had hitherto been the administration policy. By the way I have copies of these questions available and I think they are being distributed now.

I would like to call attention to one mistake where we have the word "autarchy" spelled with a "ch." That is definitely wrong. It must be spelled with a "k." If you spell autarky with a "k" it means a very different thing from spelling it with a "ch," as you will find out by looking in the dictionary.

I get a word that somebody—and I don't know who it was—suggested that in view of my previous positions, this series of questions must have been written by somebody else. I took that in a light and humorous vein but I would like to say here that in my 10 years in the Senate when that suggestion was made seriously as it has been on other occasions, it is the only comment or the only event in the 10 years that has ever raised my blood pressure and it has raised my blood pressure at times when it was meant as a vigorous criticism. I do not feel that way about this one because I think it was more or less a humorous comment. I just want to say I write my own speeches. I write them on yellow paper with a lead pencil, longhand, and from now on I am going to keep that yellow paper written with a lead pencil and longhand and put it in the file instead of throwing it in the wastebasket as soon as it has been copied.

I would like to say also that the point of view expressed by these questions was first expressed by me in an article in the Atlantic Monthly in the year 1931. It was the month of September 1931, when I first expressed these ideas. I later began to have doubts of them as the heavy professional support of greatly reduced tariff and reciprocal trade treaties and its most-favored-nation clause got underway. The argument which caused me to doubt my position that I had taken in 1931 was that any money that we paid for things from abroad came back home again in the purchase of American goods so that there was no diminution in trade and that seemed like a reasonable point of view and so I began to doubt my 1931 position.

There is not in that series of questions another thing which has changed, namely that dollars are now hoarded and held because they are practically as good as gold for the support of the various currencies of the countries of the world. So that it is no longer true at

least that dollars come back immediately, unless they have to. They constitute the balances of foreign countries in support of their economies and in support of their own currency.

I even went to the point of preparing a presentation on the stage of Constitution Hall before I went to the Senate before a very large audience, appearing with Charles Taft, in support of the reciprocal trade treaties and the most-favored-nation clause. My doubts began shortly thereafter and I think you will not find in the record anywhere since that time a speech of mine in favor of action which is based directly or indirectly on the old free trade theory. I have kept quiet. I have voted with the administration because it is my policy straight through unless I am sure of my ground to give the administration the benefit of the doubt. So I voted with the administration, in both administrations, Democratic and Republican, Truman and Eisenhower.

Well, that is for the record and to explain that in this memorandum I am coming back to a position now 26 years old instead of having suddenly gone off the handle. Thank you, Mr. Chairman.

Representative BOLLING. Senator, it would perhaps be a good idea to include your memorandum in the record at this point.

Senator FLANDERS. Yes. With the word "autarky" properly spelled with a "k."

(The document referred to is as follows:)

NOVEMBER 14, 1956.

Memorandum by Ralph E. Flanders, United States Senate.

To: Dr. Grover W. Ensley, staff director, Joint Economic Committee.

Subject: A Reexamination of Our Trade Policy.

Before the administration and the new Congress commit themselves too deeply to an extension of the presently accepted trade policy, it would seem wise to reexamine its basic assumptions. Among the questions which may properly be raised are the following:

1. Is expanded trade per se an aid to the maintenance of peace? World trade was predominantly on a free trade basis during the early years of this century; yet the driving attack of Germany on the industrial and commercial leadership of Great Britain formed the backdrop for the tragedy of World War I. Conceivably that rivalry may recur.

2. In a world wherein war is still a possibility, we have recognized the necessity for protecting industries and products necessary to the national defense. Is this the only exception to be considered in a world prepared for war? Can we afford to let pass into foreign hands any industry important to the American consumer? Is there not danger that war may cut off foreign supplies of products whose domestic production has been dried up by foreign competition?

3. In view of the expanding exportability of American capital and technical skill, do we not face contingencies not yet recognized in trade theory? What commodities are there which we may confidently assume to be safe from foreign competition using American equipment and management and lower paid labor? Perhaps the products of our extensive agriculture would survive if we were willing to put them into free competition. What else would?

4. For how long would the expanded export of American equipment (and capital funds) play a significant part in maintaining a balance of trade under the conditions assumed in the preceding question? Would this be of short-term benefit or longer? Could it be a permanent support for a satisfactory balance?

5. What about basing our export volume on the value of needed imports, such as raw materials which we do not possess in sufficient quantity?

6. It might be worthwhile to give a little thought to a mitigated-autarky, such as is suggested in the previous question. Is there in our underemployed population a resource comparable to underdeveloped natural resources in other countries? Can we apply knowledge, wisdom, and energy to expansion of this home market, if competition slows down that abroad?

7. Considering further the possible usefulness of autarkies, what possible assistance can we render to Western European countries as great as they can

gain for themselves by forming a customs union? This would give them a mass market comparable in its possibilities to our own.

8. Should we insist on being admitted to this mass market as a member or should we encourage them to go on their own?

9. It would seem that the present voluntary restriction of textile exports by Japan cannot be counted upon as a permanent expedient. Would it not be better for us to encourage and assist in the formation of an autarky in eastern and southern Asia, extending from Pakistan to Japan? The free nations in this area largely supplement and complement each other economically and can move forward in cooperation further than in competition. They already have a bond of cooperation in the Colombo plan. Why not freely and gladly assist in such a program?

10. If the mitigated autarky of question 6 proves feasible, we would still have a bounteous production of wealth, sufficient for the development and expansion on which our increasing standard of living depends. Beyond that we would continue to afford, if necessary, the billions to be wasted in war and other billions for aid. Why not furnish this aid freely to underdeveloped countries whose principles, purposes, and interests most clearly parallel our own? Australia and the Philippines are examples.

11. Why not adopt the slogan, "Aid, Not Trade"? Questions like these must be carefully considered and valid answers given if the administration is to be assured that its trade program will have the wholehearted support of the Congress.

Representative BOLLING. The opening speaker in the hearing this morning of invited witnesses is Dr. Dexter M. Keezer, vice president and director of the department of economics of the McGraw-Hill Publishing Co., of New York. Dr. Keezer has had a varied career as a reporter, as a college president, and as a Government official both in Washington and in London during the war. But he is probably best known to those who follow economic affairs for his work on a succession of studies sponsored by McGraw-Hill on the economic outlook and on economic growth. We are privileged to have him here this morning to discuss "Growth of the United States Economy".

STATEMENT OF DEXTER M. KEEZER, DIRECTOR, DEPARTMENT OF ECONOMICS, McGRAW-HILL PUBLISHING CO.; ACCOMPANIED BY DOUGLAS GREENWALD, McGRAW-HILL PUBLISHING CO.

Dr. KEEZER. Mr. Chairman, I am honored by your invitation to participate in these hearings on Economic Growth Trends in the Industrial Nations. My formal part, as I understand it, is primarily to present—very briefly—a series of projections of the growth of our gross national product.

In our department of economics at the McGraw-Hill Publishing Co., of which I am the director, we maintain as part of our working equipment a standard set of long-range projections of our economic growth potentials. My associate, Douglas Greenwald, does the detailed work on the projections. He is here with me this morning.

Recently we revised these projections, as we are more or less continuously doing, and invited a group of people with expert understanding of the range of speculation and I underline the word "speculation" involved to spend a day with us and check over these projections.

The purpose was to see if the projections were as well as based as projections moving out into an unknown future could be.

I assume that it is because we have recently made as careful a check as possible on our long-range projections that I am asked to present them to you.

In making these projections of our gross national product, we are abundantly aware of the fact that we are not taking a photograph of things surely to come. There may be some limitations of these projections as sure-fire forecasters of which we are not aware, but I doubt if there are many.

Also, as a result of our continuing studies of economic growth and stability, we are equally aware of the limitations of the gross national product as a measure of economic growth.

In a paper on economic growth and stability submitted to your Subcommittee on Tax Policy some time ago, I remarked that, "As a measure of our Nation's economic growth, the gross national product * * * leaves a great deal to be desired," and expanded on that point. I assume others will expand on it further this morning.

By way of multiplying the complications of work on which your subcommittee is embarked, we have the added fact that there is still a wide range of disagreement about what we are actually talking about when we talk about economic growth.

Herbert Stein, acting director of research of the Committee for Economic Development, recently summed up the difficulty by remarking that—

> there is no * * * accepted convention of what we mean by growth. We talk about increases in output, capacity to produce, resources, consumption, in the aggregate, per capita, per unit of output or per man-hour * * * and there is no agreement on which concept of growth we really mean when choice is necessary.

In spite of limitations of the sort I have emphasized, I believe that the sort of projections I am presenting perform a useful role. They provide a rough gage of the growth potentials of our economy over the years ahead; and for governmental and business purposes a rough gage is better than none.

I shall indicate the more limited assumptions which are embedded in the projections as I run through them. Of the general assumptions on which they are based the most crucial, of course, is the assumption that we are going to manage to avoid blowing up the world with atomic bombs. If that assumption is no good, these projections involve a completely bootless enterprise.

Now, I propose to run through the projections, most of which I have put in chart form for your convenience, and indicate where they are and how they were put together.

Mr. Chairman, I suggest that you refer to the charts I have submitted to you. The first chart. In this chart we have calculated the gross national product of the United States for the years 1950, 1955, 1960, 1965, and 1970 in the standard manner. The calculations for the years 1950 and 1955 are made from the record. The calculations for the years ahead are based on estimates which are explained in charts to follow. The nature of the calculation is indicated on the face of the chart. The estimate of the number of workers, taking 1955 for example, is 63,100,000 workers, working an average workweek of 39.9 hours per week. In terms of averages, it is estimated that workers still work 52 weeks a year. We took an output per man-hour in 1955 prices of $2.99, and by a process of simple multiplication came out for 1955 with a gross national product of $390,900 million.

The same procedure follows right through for the following years in which we have made these projections. The 1960 total for the gross

national product becomes $454 billion, all of course in 1955 prices, to avoid the element of price change.

The 1965 figure calculated on this basis becomes $545 billion. The 1970 figure $653 billion. That is the basic projection which I am asked to provide here today.

The second chart indicates our assumptions about population and of course the key assumption there is that of the number of people actually employed. In the interest of time—the time schedule is important at this time—I shall not, unless you wish to have me do it, go through the detailed assumptions and calculations at arriving at the work force figures.

I will be glad to if you wish to have them.

Representative BOLLING. You might proceed in a brief form to save time.

Dr. KEEZER. For our estimate of the labor force age group, we used the census projection of the number of persons 15 and over. Since all the people who will reach this age by 1970 have already been born, their number can be projected with some assurance, and the census provides only one estimate of the number for each of the years 1960, 1965, and 1970.

Next, we have tried to estimate how many of these people will actually be at work—or looking for work—in each of the years under consideration. These people will make up the active labor force, a group that includes all those employed, or seeking employment, in military or civilian jobs. Among persons 15 and over, there will also be many housewives, students, and retired persons who are not seeking employment. These do not count in the labor force.

We expect that the proportion of those 15 and over who are in the active labor force will be slightly higher in the projected years than it was in 1955: 59.5 percent compared with 59.2 percent. On the basis of present trends, a larger proportion of married women and older persons can be expected to take jobs, even though many of them will be part-time jobs.

Civilian employment will consist of the total labor force, less those who are in the Armed Forces or unemployed. Here is a basic assumption: The military forces are assumed to be cut about 300,000 in each 5-year period. It is our understanding that military plans for the future will place an increasing emphasis on complex weapons and less on numbers of men.

Unemployment—and this is a very basic point in this projection—is assumed to be 4 percent of the labor force, which we would regard as essentially full employment. On these assumptions, civilian employment will be 67.9 million in 1960, 73.9 million in 1965 and 80.5 million in 1970.

Chart 3 shows our estimates of output per man-hour and average hours of work. In past years, our economy has had remarkable success in producing a steadily larger total output, while reducing the hours of work by increasing average output per man-hour.

We assume this sort of success will continue.

I think, as a matter of fact, that chart III is a most impressive chart. Starting with 1930, it shows the workweek going down, down, down, and output per man-hour going up, up, up. I suppose if anybody wanted one single photograph of a magnificently successful economy, it might be this chart right here.

In the two decades 1930–40 and 1940–50, the average hours of work in industry, agriculture, and Government declined about 3½ hours per decade. It is expected that average hours of work will continue to decline but at a somewhat slower rate: about 2 hours per decade. By 1970 then it is expected that the average workweek will fall to 36 hours per week.

The next is one of the crucial calculations and speculations in this operation. It has to do with the increase in the rate of output per man-hour.

This increase in output per man-hour from the early 1900's to date has averaged about 2 percent per year. Since 1930 this rate has been somewhat higher, close to 2.9 percent per year. We have projected a rate of increase somewhere between these two rates. We are using an increase of 2½ percent per year in our projection.

This projection of output per man-hour was made on the basis of overall national output. We did not refine the projections of output per man-hour to show the individual trends in productivity in nonagricultural industry, agriculture and government. We have, of course, considered the various productivity trends of all these groups in making our overall projection.

Charts 4 through 6 can be checked through rapidly. They are essentially explanatory charts. Chart 4, portraying in a sense the major dynamo in our economy, shows the rise in research and development expenditures and their projection to 1960 when they are a little less than $9 billion. We didn't dare go to 1970 in this chart because it would look so tremendous on the right side, it would look implausible.

Chart 5 shows one of the pressures to increase productivity, using power cost as one element and labor cost as another. With labor relative to power becoming more dear, we have a pressure to increase productivity and to do those things necessary to increase it.

The sixth chart is our projection of business capital expenditures over the period under question and is essentially an explanation of our expectation that increases in productivity, or increases per man-hour, will continue to take place as we have projected.

Chart No. 7 simply deals with the obvious fact that if we are going to produce all these things the purchasing power must be there to consume them and this is our projection of income per capita, after taxes. All of these figures are expressed in constant 1955 dollars in an effort to get measures of physical growth rather than dollar figures which include confusing price changes.

The final table in the series I have given you is a detailed breakdown of these projections of our gross national product.

I would be very glad at this point simply to insert the explanation of how these detailed projections were made and let it go at that.

I think some of these figures are—if the basic projections have some degree of plausibility, which I am sure they do—really eye-popping figures. You find consumer spending on goods and services, rising from $254 billion in 1955 to $434 billion in 1970.

Representative BOLLING. This whole table will be included in the record.

Dr. KEEZER. And this consumer expenditure will be made by people who have much more leisure with which to do this spending. I think perhaps I should mention the fact that expenditures on serv-

ices are expected to increase much more than expenditures generally. The increase in consumer durables is expected to be bigger than for nondurables. But in the interest of time I will simply, if you approve that procedure, submit the table and along with it the detailed explanation of how the calculations were made so that it may be clear just exactly what we have done.

Representative BOLLING. That material will be included in the record.

Dr. KEEZER. Thank you.

(Dr. Keezer's prepared statement and exhibits follow:)

STATEMENT ON GROWTH OF THE UNITED STATES ECONOMY BY DEXTER M. KEEZER, VICE PRESIDENT AND DIRECTOR, DEPARTMENT OF ECONOMICS, MCGRAW-HILL PUBLISHING CO., INC., NEW YORK CITY

I am honored by your invitation to participate in these hearings on Economic Growth Trends in the Industrial Nations.

My formal part, as I understand it, is primarily to present—very briefly—a series of projections of the growth potentials of the economy of the United States, as gaged by the possible growth of our gross national product.

In our department of economics at the McGraw-Hill Publishing Co., of which I am the director, we maintain as part of our working equipment a standard set of long-range projections of our economic growth potentials. My associate, Douglas Greenwald, does the detailed work on the projections. Recently we revised these projections, as we are more or less continuously doing, and invited a group of people with expert understanding of the range of speculation involved to spend a day with us and check over these projections. The purpose was to see if the projections were as well based as projections moving out into an unknown future could be.

I assume that it is because we have recently made as careful a check as possible on our long-range projections that I am asked to present them to you.

In making these projections of our gross national product, we are abundantly aware of the fact that we are not taking a photograph of things surely to come. There may be some limitations of these projections as sure-fire forecasters of which we are not aware, but I doubt if there are many.

Also, as a result of our continuing studies of economic growth and stability, we are equally aware of the limitations of the gross national product as a measure of economic growth. In a paper on economic growth and stability submitted to your Subcommittee on Tax Policy some time ago, I remarked that, "As a measure of our Nation's economic growth, the gross national product * * * leaves a great deal to be desired," and expanded on that point.

By way of multiplying the complications of work on which your subcommittee is embarked, we have the added fact that there is still a wide range of disagreement about what we are actually talking about when we talk economic growth. Herbert Stein, acting director of research of the Committee for Economic Development, recently summed up the difficulty by remarking that "there is no * * * accepted convention of what we mean by growth. We talk about increases in output, capacity to produce, resources, consumption, in the aggregate, per capita, per unit of output or per man-hour * * * and there is no agreement on which concept of growth we really mean when choice is necessary."

In spite of limitations of the sort I have emphasized, I believe that the sort of projections I am presenting perform a useful role. They provide a rough gage of the growth potentials of our economy over the years ahead; and for governmental and business purposes a rough gage is better than none.

I shall indicate the more limited assumptions which are embedded in the projections as I run through them. Of the general assumptions on which they are based the most crucial, of course, is the assumption that we are going to manage to avoid blowing up the world with atomic bombs. If that assumption is no good, these projections involve a completely bootless enterprise.

Now, I propose to run through the projections, most of which I have put in chart form for your convenience, and indicate where they and how they were put together.

Chart 1: In this chart we have calculated the gross national product of the United States for the years 1950, 1955, 1960, 1965, and 1970 in the standard manner. The calculations for the years 1950 and 1955 are made from the

record. The calculations for the years ahead are based on estimates which are explained in charts to follow. The nature of the calculation is indicated on the face of the chart.

Chart 2 shows our estimates of prospective population growth, and prospective distribution of the population in major economic groups. Our overall population figures are based on the highest estimates of the United States Bureau of Census for the years 1960, 1965, and 1970. These estimates are taken directly from Census Bulletin P25, No. 123, dated October 20, 1955. In the past, the Census Bureau estimates have undershot the mark. One reason why we used the high side of the Census estimates of population growth is that these estimates have not assumed any additional decline in the death rate. The spread between the highest and lowest Census estimates of the population in the year 1970 is 13 million, all accounted for by varying estimates of the number of those under 15 years of age.

For our estimate of the labor force age group, we used the Census projection of the number of persons 15 and over. Since all the people who will reach this age by 1970 have already been born, their number can be projected with some assurance, and the Census provides only one estimate of the number for each of the years 1960, 1965, and 1970.

Next, we have tried to estimate how many of these people will actually be at work—or looking for work—in each of the years under consideration. These people will make up the active labor force, a group that includes all those employed, or seeking employment, in military or civilian jobs. Among persons 15 and over there will also be many housewives, students, and retired persons; these do not count in the labor force.

We expect that the proportion of those 15 and over who are in the active labor force will be slightly higher in the projected years than it was in 1955: 59.5 percent compared with 59.2 percent. On the basis of present trends, a larger proportion of married women and older persons can be expected to take jobs, even though many of them will be parttime jobs.

Civilian employment will consist of the total labor force, less those who are in the Armed Forces or unemployed. The military forces are assumed to be cut about 300,000 in each 5-year period. It is our understanding that military plans for the future will place an increasing emphasis on complex weapons and less on numbers of men. Unemployment is assumed to be 4 percent of the labor force, which we would regard as essentially "full employment." On these assumptions, civilian employment will be 67.9 million in 1960, 73,9 million in 1965, and 80.5 million in 1970.

Chart 3 shows our estimates of output per manhour and average hours of work. In past years, our economy has had remarkable success in producing a steadily larger output, while reducing the hours of work and increasing average output per manhour. We assume this sort of success will continue.

In the two decades 1930–40 and 1940–50, the average hours of work in industry, agriculture and Government declined about 3½ hours per decade. It is expected that average hours of work will continue to decline but at a somewhat slower rate: about 2 hours per decade. By 1970 it is expected that the average work week will fall to 36 hours per week.

The rate of increase in output per manhour from the early 1900's to date has averaged about 2 percent per year. Since 1930 this rate has been somewhat higher, close to 2.9 percent per year. We have projected a rate of increase somewhere between these two rates. We are using an increase of 2½ percent per year in our projection. This projection of output per manhour was made on the basis of overall national output. We did not refine the projections of output per manhour to show the individual trends in productivity in nonagricultural industry, agriculture, and government. We are not yet certain that these refinements add very much to the overall picture, except to spell out some of the details. We have, of course, considered the various productivity trends of all these groups in making our overall projection.

Charts 4 through 6, which are largely self-explanatory, are presented by way of amplification of our expectation, that continued increases in output per manhour are reasonably to be anticipated. The estimate of the prospective increase in business capital investment takes account of the Nation's population growth, the demand on the part of the consumer for new and better products and business' desire to lower costs and increase profits through more efficient operations. The projected increase in capital spending will provide for a necessary increase in capacity, as well as modernization and replacement of obsolescent plant and equipment.

Chart 7 shows the prospective increase in income per capita, after taxes. The increase in business capital investment will, of course, be realized only if there is the purchasing power to absorb the production made possible by this investment. Our estimates of disposable income per capita show an increase of 36 percent from 1955 to 1970.

In the table which follows our charts we have provided a detailed breakdown of the projections of the gross national product, which have been presented in chart form. An explanation of the calculations made in producing the breakdown of the gross national product into its components and an explanation of the assumptions follow.

The division of the gross national product into its three major sectors—consumers, business, and government—is based on past ratios of these sectors to the total, and on anticipated shifts in importance of each of the sectors. The growth shown for each sector is therefore consistent with the overall projections of gross national product.

Consumer spending on goods and services is expected to rise from $254 billion in 1955 to $297 billion in 1960, $358 billion in 1965, and $434 billion in 1970. All of these figures are expressed in 1955 prices. Higher wages, larger payments to retired persons, the increasing variety of goods and services—and the leisure in which to enjoy them—will, we think, cause the consumer sector of the economy to grow somewhat faster than the other sectors.

The division of total consumer expenditures between goods and services was made by projecting each of these groups in terms of past trends and expected shifts in trends in the future. Thus expenditures on nondurable goods are expected to rise from $126 billion in 1955 to $145 billion in 1960, $172 billion in 1965 and $204 billion in 1970, all in 1955 prices. Consumer spending on durable goods in 1955 prices is expected to be $40 billion in 1960, $48 billion in 1965, and $59 billion in 1970 compared with $35.7 billion in 1955. And spending on services is expected to go up from $92 billion in 1955 to $112 billion in 1960, $138 billion in 1965, and $171 billion in 1970. The increase in services is especially large, and the increase for durables is slightly larger than for nondurables, because this seems to be the changing pattern of expenditure as income rises and people acquire more leisure.

Private investment

Residential nonfarm construction is assumed to increase from $16.6 billion in 1955 to $19 billion in 1960, $22 billion in 1965 and $26 billion in 1970. This assumes an increase in homebuilding to provide homes for new families, and for replacement or improvement of older dwellings. The fact that much of our population changes residence each year suggests a fairly high rate of replacement. And the present trend toward larger families may require additions or alterations to many otherwise serviceable homes.

Expenditures on plant and equipment by business, farmers, and private nonprofit institutions are expected to increase, in constant 1955 dollars, from near $40 billion in 1955 to $49 billion in 1960, $60 billion in 1965, and $70 billion in 1970. (This series differs, for the most part, from the series on business capital expenditures shown in chart 6 in that it includes farm buildings and equipment. However, the reasons for the increase are the same.)

The annual increase in inventories is expected to be $3 billion in 1960, $4 billion in 1965, and $5 billion in 1970. These estimates are about what will be needed in order to take care of the rate of increase in output expected over the future years.

Net foreign investment

We assumed that net foreign investment will be zero in the years ahead. In 1955 it was —$0.5 billion. This year it will probably average about $1 billion.

Government expenditures

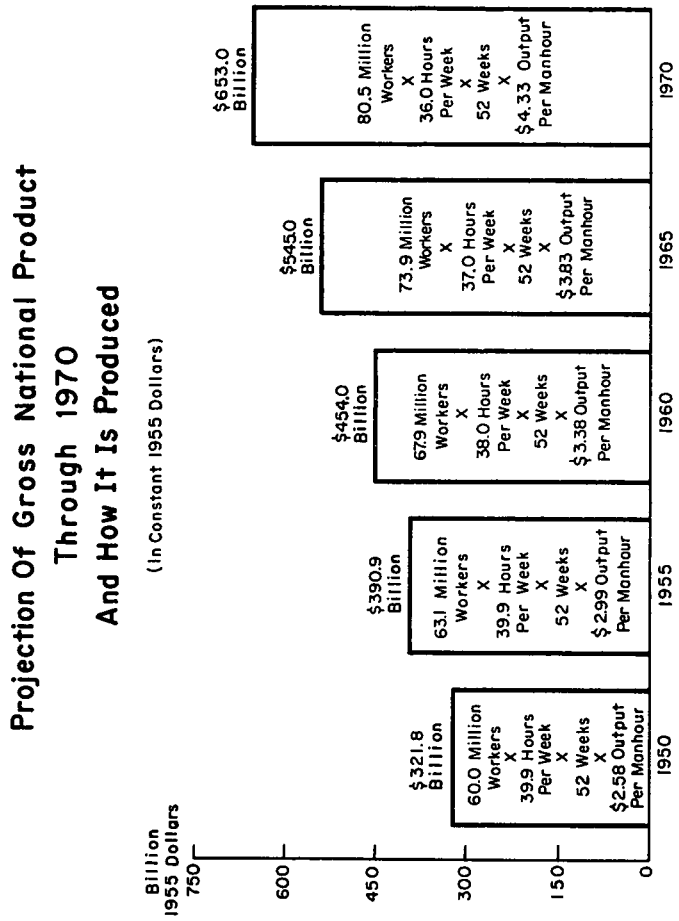
It is expected that expenditures for national-security programs will rise in the years to come despite a decline in the number of military personnel. Complexity of weapons and increasing research will require larger dollar spending.

It is expected that more civilian Government personnel will be needed in the future, as our national economy expands, simply to meet the increase in demand for present Government services.

State and local expenditures

State and local spending must increase rapidly if our projected needs for roads, schools, etc., are to be met. The next 10 or 15 years will see some cutting down of the backlog in these fields—a backlog of needs which has been accumu-

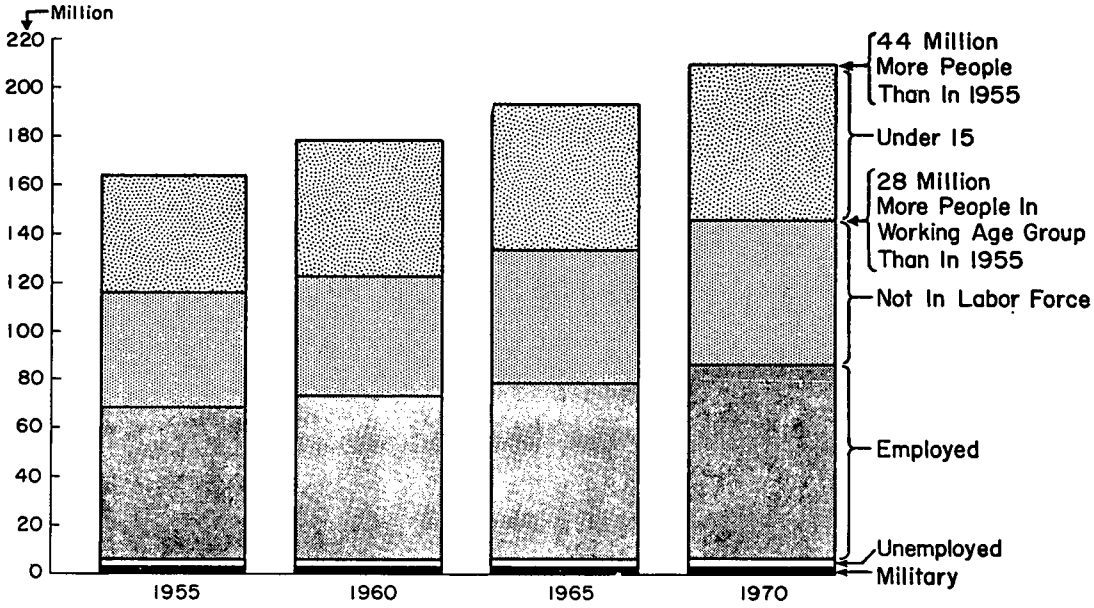
lating since the depression years, and only recently been attacked with real vigor. But for most of the period we are considering, the only limits on this type of spending will be the ability to finance it and to obtain the necessary resources.



Source: U.S. Dept of Commerce, McGraw-Hill Dept of Economics

(1)

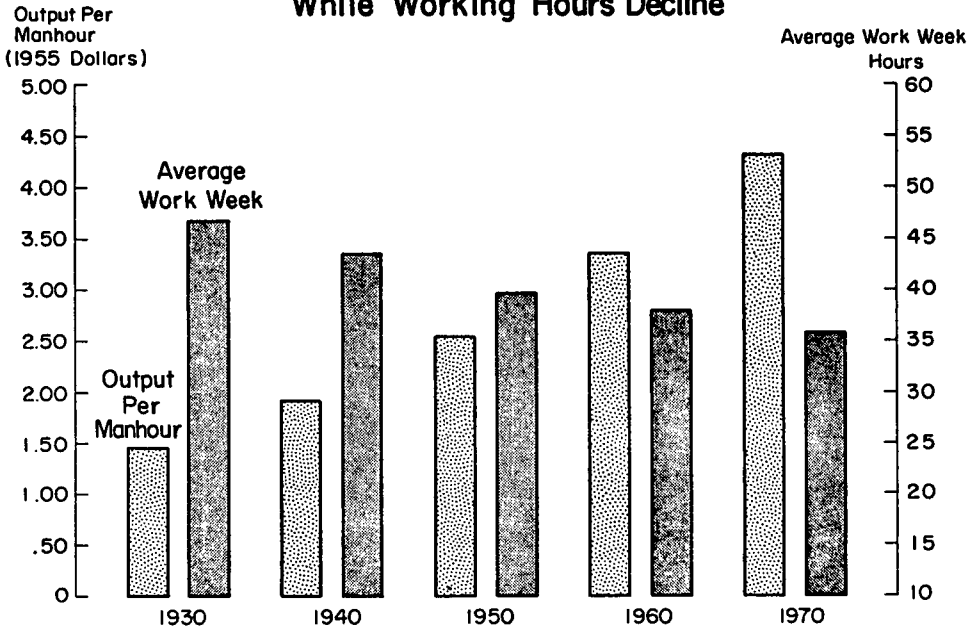
Population Growth By 1970



Source: Census Bureau, McGraw Hill Dept of Economics

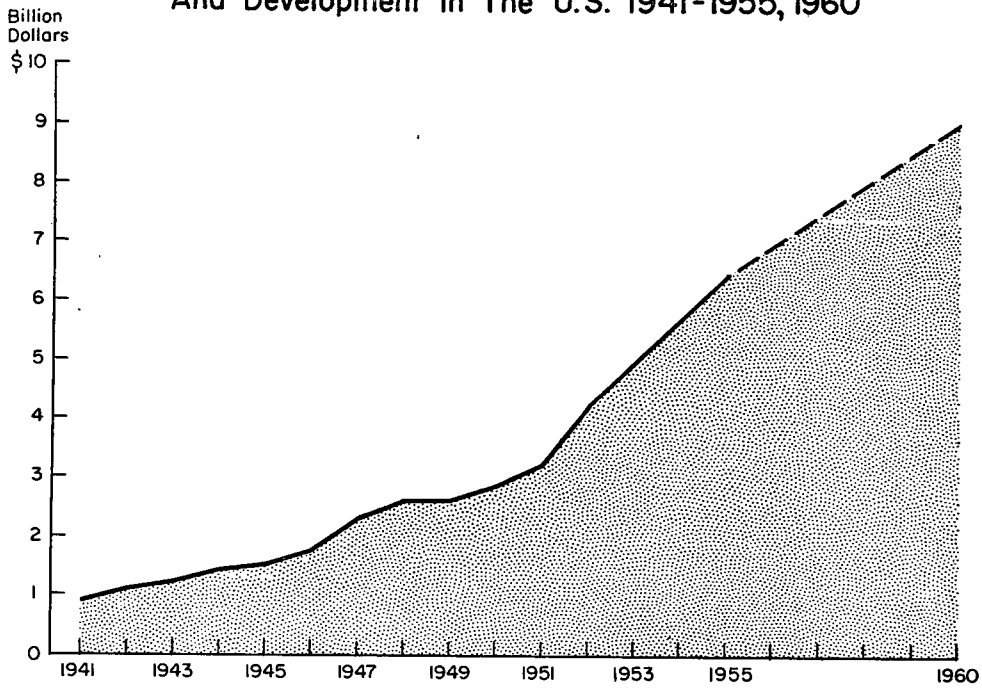
(2)

Output Per Manhour Increases While Working Hours Decline



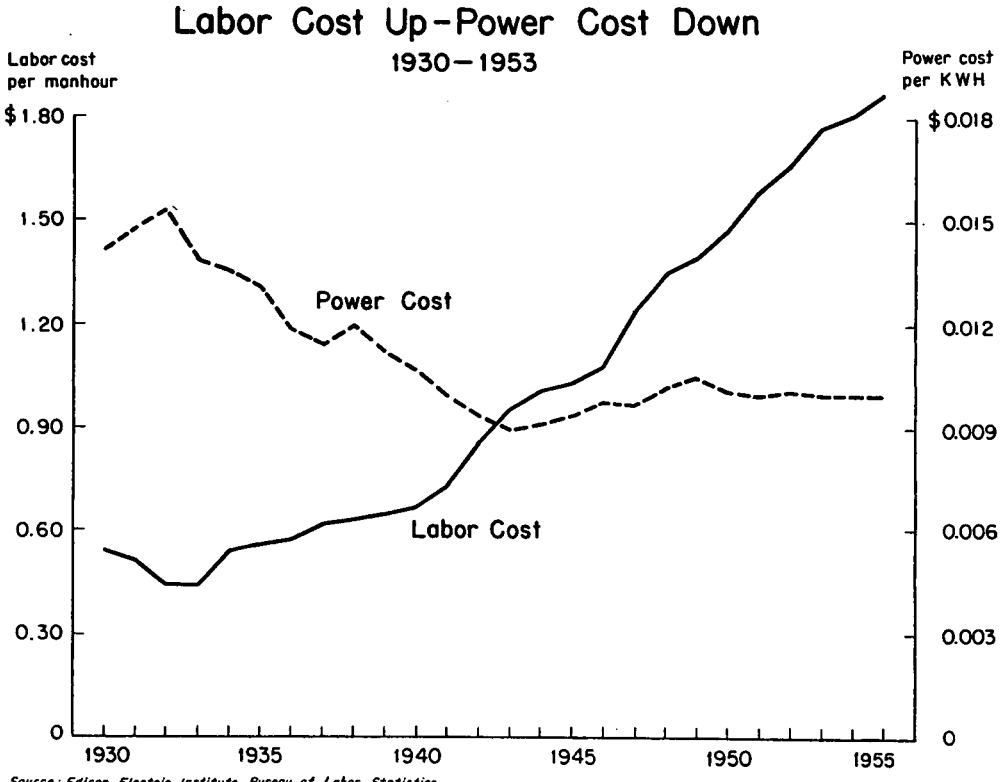
Source: McGraw-Hill Dept of Economics (3)

The Growth Of Scientific Research And Development In The U.S. 1941-1955, 1960



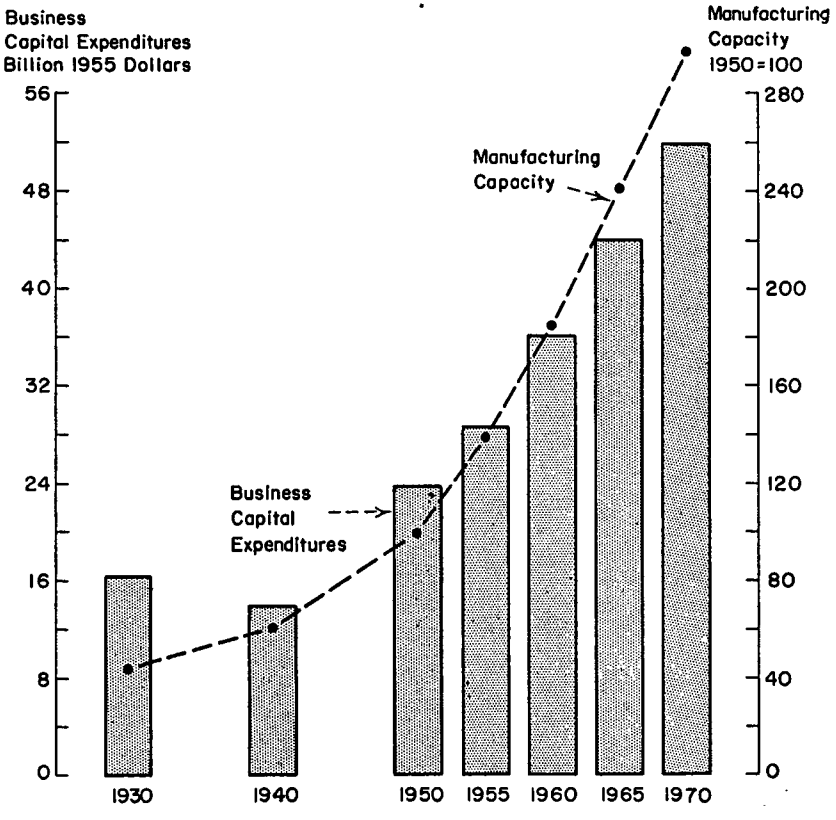
Source: U.S. Department of Defense, McGraw-Hill Department of Economics

(4)

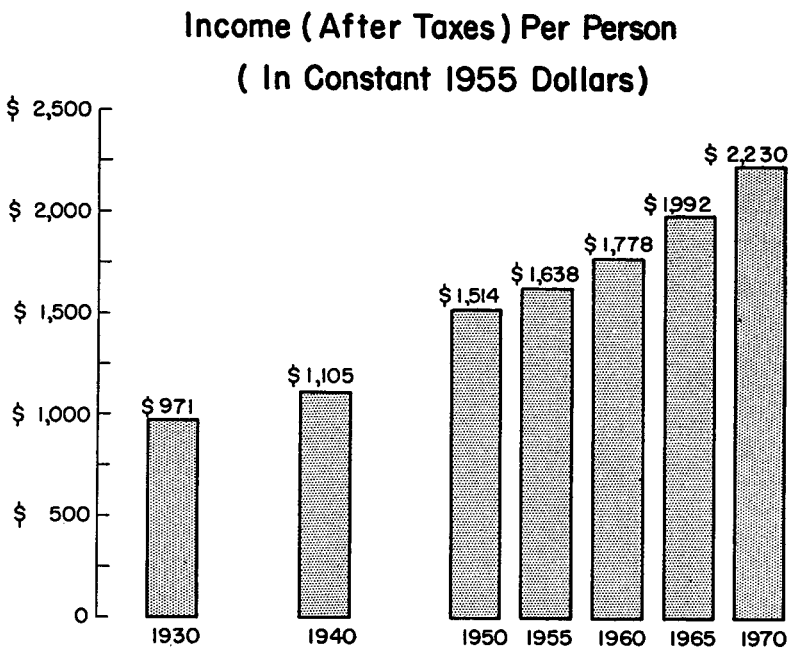

Labor Cost Up-Power Cost Down
1930—1953
Labor cost per manhour
Power cost per KWH
$1.80
1.50
1.20
0.90
0.60
0.30
0
$0.018
0.015
0.012
0.009
0.006
0.003
0
Power Cost
Labor Cost
1930
1935
1940
1945
1950
1955
Source: Edison Electric Institute, Bureau of Labor Statistics

(5)

Business Capital Spending And Capacity In Manufacturing



Source: McGraw-Hill Dept of Economics



Source: U.S. Dept of Commerce, McGraw-Hill Dept of Economics

(7)

Projections of economic indicators, 1960, 1965, 1970

	1930	1940	1950	1955	1960	1965	1970
Population.....millions..	122.8	131.7	151.6	165.2	179.4	193.3	209.4
Labor force age group.....do....	86.7	98.7	110.9	116.4	123.6	133.6	144.8
Labor force.....do....	50.1	56.0	64.6	68.9	73.5	79.5	86.2
Military.....do....	.3	.4	1.5	3.1	2.8	2.5	2.3
Civilian.....do....	49.8	55.6	63.1	65.8	70.7	77.0	83.9
Unemployed.....do....	4.3	8.1	3.1	2.7	2.8	3.1	3.4
Employed.....do....	45.5	47.5	60.0	63.1	67.9	73.9	80.5
Average hours worked.....	47.0	43.8	39.9	39.9	38.0	37.0	36.0
Manhours worked.....billion..	111.2	108.2	124.5	130.9	134.2	142.2	150.7
Output per man-hour.....1955 dollars..	1.48	1.92	2.58	2.99	3.38	3.83	4.33
Gross national product..billion 1955 dollars..	164.7	207.7	321.8	390.9	454.0	545.0	653.0
Consumer expenditures.....do....	118.6	143.2	215.6	254.0	297.0	358.0	434.0
Nondurables.....do....	61.3	79.8	109.3	126.2	145.0	172.0	204.0
Durables.....do....	11.2	14.5	29.5	35.7	40.0	48.0	59.0
Services.....do....	46.1	49.0	76.7	92.1	112.0	138.0	171.0
Gross private investment.....do....	24.4	29.8	58.5	60.6	71.0	86.0	101.0
New construction.....do....	16.1	14.1	26.7	32.7	38.0	46.0	54.0
Residential.....do....	5.3	7.6	14.4	16.6	19.0	22.0	26.0
Other.....do....	10.8	6.6	12.3	16.1	19.0	24.0	28.0
Producers' durables.....do....	9.0	11.1	24.1	23.7	30.0	36.0	42.0
Business inventories.....do....	.6	4.5	7.7	4.2	3.0	4.0	5.0
Government.....	21.1	33.0	50.1	76.8	86.0	101.0	118.0
Federal.....do....	3.4	14.4	25.6	46.7	50.0	57.0	63.0
National security.....do....	-------	5.2	21.4	41.2	44.0	50.0	55.0
State and local.....do....	17.6	18.6	24.5	30.1	36.0	44.0	55.0

Representative BOLLING. The next speaker is Dr. Solomon Fabricant, Director of Research for the National Bureau of Economic Research and Professor of Economics at New York University. Dr. Fabricant has served in Government and as a Government consultant for many years; he is the author of a number of economic works which

throw light on the structure and operation of the economy. As the research director of the notable National Bureau, he has at his command tremendous facilities for analyzing economic problems, and the means to bring together the services of top economists of the country. The National Bureau has made great contributions to the understanding of our economy. Dr. Fabricant, we are pleased to have you with us this morning, to discuss the significance and shortcomings of economic comparisons.

STATEMENT OF SOLOMON FABRICANT, DIRECTOR OF RESEARCH, NATIONAL BUREAU OF ECONOMIC RESEARCH

Dr. FABRICANT. Thank you. Economic growth here and abroad is a matter of first-rate importance; not only with respect to opulence, to use the words of a famous economist, but also with respect to defense. I am very glad therefore to be able to appear before the subcommittee and appreciate this opportunity to participate in the discussion. I am sorry I don't have a prepared statement, and trust you will bear with me while I speak extemporaneously.

Economic growth poses a problem that involves many elusive facts, the interpretation of these facts and judgments on difficult questions of high policy. On all these things many things may and need to be said. I can emphasize only a few points of special importance. Particularly I wish to comment first on the difficulties of measuring economic growth in a single country and on the further difficulties of making international comparisons of economic growth.

We should recognize that the indexes of economic growth are crude and we ought not to worry unnecessarily about differences which may lie well within the margins of error of these estimates. If one were to tabulate the rates of growth in the score of countries for which some sort of national income per capita estimate is available over the past half century the United States might appear to be ranked in the upper half, but not in the upper quarter. But among the omissions are to be counted most of the underdeveloped countries, all presumably with very low rates of increase in national income per capita. And to judge from what is known of the methods by which the available indexes were calculated for the countries included, one could not be confident that the ranking indicates any more than that over the past half century a few other countries may have enjoyed rates of increase in per capita income approximately equal to our own.

Measures of growth are lacking or, if available, are rough, because information on the simple facts of output, population, and other basic economic quantities are not adequate.

While we have a fair idea of current levels of these quantities in the United States and other Western countries, our factual basis diminishes in scope and validity the further back we go in time.

The same may be said, also, of contemporary levels as we extend our view toward the less well-developed areas of the world and, of course, to the countries separated from us by the Iron Curtain. There is a related difficulty.

National income per capita is not the only measure of growth, as Dr. Keezer pointed out. There are also per capita gross national product figures and per capita gross national product exclusive of governmental goods and services, not to mention also the aggregates

before converstion to a per capita basis. Even for national income per capita several varying estimates are in existence. Unlike the rest of us, for example, the Russians like to omit services from their estimates of national income, and Western students of Russia have plenty of trouble putting services into the Russian figures. All too frequently measures based on diverse concepts are gathered together in the same table, despite the differences among them, because no standard sets of figures are available for all countries, or even for the same country, over any length of time. This heterogeneity of concept and measure would cause trouble in using the sort of table to which I referred a moment ago.

Even when the figures are apparently standardized, comparisons may be biased. To illustrate, most of our series on national product—whether gross or net—are based largely on market transactions. Nonmarket transactions, such as those involving production in the household, are very inadequately covered by statistics, yet it is one of the characteristics of economic growth and development that brings a decline in the relative importance of the nonmarket sphere in productive activity as a whole.

This particular deficiency tends to introduce an upward bias in all measures of economic growth. Furthermore, the bias is probably more serious during the earlier stages of transition from an agricultural to an industrialized economy than in the later stages, and, therefore, comparison of the economic growth of countries at different stages in the process of industrialization may be distorted.

Still another significant deficiency in our measures of growth lies in their failure to take adequate account of improvement in the quality and variety of economic goods and services, such as we and other Western countries have experienced. If, as appears to be the case, the Soviet-type economies have expanded their output without advancing as rapidly as other countries in the variety and quality of the goods they produce, the available figures must produce a biased comparison.

Fluctuations in the rate of economic growth brings me to my second point. Economic growth has not proceeded smoothly. I refer here not only to business cycles but also to the long swings, the swings in decade rates of growth that may be observed in the figures for various countries. In the United States, for example, the average rate of growth in national product or national product per capita during the most recent decade reflects a new primary trend. It might than the average rate of growth during the preceding or the following decades. This instability is especially disturbing when comparisons are made of the growth of different countries over relatively short periods of time.

A disparate rate of growth over a particular decade or so may reflect not a disparity of truly long-term trends but a difference between countries in the phase or intensity of the larger or shorter swings or in the presence of special and temporary factors.

The point is also of importance when we come to project rates of growth into the next generation or two. It would be hazardous to assume, in the light of our experience, that a higher than average rate during the most recent decade reflects a new primary trend. It might simply mean the ascending phase of a long cycle.

Projections stumble not only over the difficulty with long cycles but also over the biases referred to a moment earlier. To put the

point briefly in terms of a question, if Soviet Russia should decide to divert some of its resources to improving the quality and variety of the consumer goods and services that it produces, as well as their quantity, would Russia be able to maintain its past rate of growth in aggregate output as this is ordinarily measured?

There are many other problems encountered in making projections of our growth and that of other countries. No matter how carefully they are made, projections must rely heavily on and reflect many assumptions, the validity of which is at best doubtful. Can we be sure that the long-term trends of the past, or the trends over the postwar decade, in such variables as population, percentage of the population in the labor force, hours of work, output per man-hour particularly, and so on, will be maintained? Yet every projection that has been made is based in large degree on the assumptions that past trends may be extrapolated, with or without adjustments that must also be based on assumptions.

Mr. Gainsbrugh, I am sure, will want to comment on this in fuller detail, and my own views have been set forth in a paper which I offer for the record, Mr. Chairman, if you so wish.

(The document referred to is as follows:)

THE LONGER FORWARD LOOK: SOME CRITICAL REMARKS

(By Solomon Fabricant*)

Of course, the coming year is not our only concern. The economic outlook is not bounded by a horizon fixed by the conventional calendrical unit. We stand here and look forward along a road that extends indefinitely into the future.

To look is not necessarily to see. The landscape before us is shrouded in mist. Yet it is obvious that virtually all of us expect continued growth in our economy. We look forward to a rising trend in real income per head of the population, in population itself, and, therefore, also in aggregate real income.

This is not merely a hope. It is an expectation, and it is an expectation shared by persons with diverse views about the forces that make for growth, or even agnostic about them. Those who disclaim knowledge of the causes of economic growth do not hesitate to extrapolate trends of long standing. Those who believe in the power of individual enterprise to generate progress in the future, as it has in the past, are willing to do likewise. And so, too, those who feel they have seen signs of weakening in the power of individual enterprise or detected hardening in its task—they rest their expectations of continued growth on faith in the power and willingness of collective enterprise, particularly government, to offset the factors tending toward stagnation. In all cases, expectations about future trends are deeply, if not entirely, colored by the pattern and rate of growth in the past.

The expectation of continued growth is so widely held and based so heavily on past trends that reductions of it to arithmetical terms, of the sort more or less descriptive of the past, look eminently reasonable to most of us. We are all familiar with the figures. They have appeared in greater or less detail in statements of the President, in reports by the staff of the Joint Committee on the Economic Report, in publications by research institutes, and in private reports prepared for businessmen. And they are all much alike.

We need not take the time here to add to the list. Rather than repeat the exercises, let us review the figures alerady available. And for this purpose we may take advantage of the labors of the staff of the joint committee.[1] I should mention that my choice of their particular set of figures is not in any way meant to be invidious.

---

*Dr. Fabricant is director of research, National Bureau of Economic Research, and professor of economics, New York University.

Source: Paper presented at the Third Annual Conference on the Economic Outlook at the University of Michigan, November 10 and 11, 1955.

[1] Potential Economic Growth of the United States During the Next Decade, materials prepared for the Joint Committee on the Economic Report by the committee staff, Washington, 1954.

You will recall how the projections from the 1953 level to 1965 run. The population of working age, 14 and over, is expected to rise at an annual rate of a bit over 1.3 percent. Projecting a slight average increase in labor-force-participation rates, total labor force will then rise a little faster, 1.4 percent. With only a moderate reduction in the absolute size of the Armed Forces (which assumes, of course, substantial continuation of the cold war), the civilian labor force would rise closer to 1.5 percent. Then, on an assumption of something like 4 percent unemployment in 1965, compared with 2.5 percent unemployment in 1953, civilian employment would rise at a rate of a little less than 1.5; say, 1.4 percent. Hours per worker are projected at a falling rate of 0.8 percent; man-hours put in would then go up at a rate of 0.6 percent. Output per man-hour is projected at a rate of 3 percent for agriculture, 2.5 percent for the rest of the private economy, or a little over 2.5 percent for both combined. This, together with an assumption about stability in the proportion of income that originates to government, leads to a projection of 3.2 percent for total gross national product in constant prices. With population projected at a rate of 1.5 percent, slightly above that for labor force, we have 1.8 percent per annum for real gross national product per person. This, it may be noted, is practically the same as the rate averaged over the past 75 years.

Here we have not simply a goal, but in the words of Grover Ensley, the joint committee's staff director, also "a consensus of what leading economic analysts at this time consider to be reasonable assumptions for use in private and public planning for the decade ahead."

These projections, and others of similar type, are designed "for use." In order to use them properly, if we are to use them at all, we must bear in mind a number of questions that cannot be excluded from our formulation of future prospects. Let me, by confining our attention to them, emphasize two thoughts: One relates to the range of economic experience in the past, assuming that experience continues to have significance for the future and thus for long-time projections. The other, naturally, focuses on the validity and meaning of this assumption.

As I have said, long-range projections are heavily dependent on the trends we have experienced in the past. But our experience has been a varied one; no economic series, of which we have knowledge, has been characterized by a trend that may be called uniform for every decade in the record. Over some decades the trend has been at a rapid pace; over others at a slow pace. And the variation has usually—in the case of a series of particular concern here, has always—been sufficiently great to cause some concern when we examine projections made for a decade ahead.

Consider the decade trends of output per man-hour, a piece of information that is crucial in all projections of gross national product. For private nonagricultural industry, John Kendrick's estimates for the past half century indicate that decade-average rates of increase range from 1.2 percent per annum to 2.8 percent per annum, with 3 of the figures under 2 percent and 5 between 2 and 3 percent. And for agriculture, the range is from a third of 1 percent per annum to 3.2 percent, with 4 of the figures under 1, 2 between 1 and 2, and 2 over 2.[2] It is difficult to know how much reliance may be put in a projection for a single decade ahead that is based on any one or an average of any group of these diverse decade rates.

Mere variation in decade trends would not be as troublesome in making projections for a decade ahead if the variation were itself systematically related to time. But neither of these two series, not even agricultural output per man-hour when the data are pushed back to 1870, reveal any clear-cut and systematic pattern of deviation from a straight-line secular trend. Nor can we see any reasonable approach to periodicity in the swings about the secular trend. "The crux of the difficulty in establishing an orderly pattern of long-term change," as Simon Kuznets put it in his important paper on the subject,[3] "lies in the fact that, in the absence of effective theory or even of working hypotheses, a great variety and wealth of data are needed to discriminate among the many models that can be used to describe the major characteristics of change. Yet no such variety of data is available. * * * With the available data, it is extremely difficult to choose even among the simple models used to describe the underlying,

[2] There are eight figures for the period covered, 1899–1953, because the decade rates are derived from comparisons of the level in 1899–1908 with the level in 1909–18, 1909–18 with 1919–20, etc., and of the level in 1904–13 with the level in 1914–23, 1914–23 with 1924–33, etc. The estimates will be given in detail in Dr. Kendrick's report, to be published at a later date by the National Bureau of Economic Research.

[3] Concepts and Assumptions in Long-Term Projections of National Product, in Long-Range Economic Projections, Studies in Income and Wealth, vol. 16, 1954, p. 14.

primary secular trends. Yet our projections into the future will differ significantly as we use one model rather than another. * * *" If, Dr. Kuznets added, we try to allow for long cycles in our projections—and this would seem to be essential in making projections for a decade or two—"the possibility of deriving a given pattern becomes even more remote. The power of discrimination which our limited data permit us to excise in choosing among the possible patterns for purposes of projection is still weaker."

Of course, the joint committee staff, and others engaged in making projections, have recourse to some "working hypotheses," in selecting out of the diversity of experience a basis for their projections. Thus, in the case of agricultural output per man-hour, the rate selected, 3 percent per annum, is "somewhat less than the average of recent years, but higher than the 1910 to 1953 average of about 2 percent. This assumption reflects the continued effects of technological changes on agriculture, such as increased mechanization, improvements in plant and animal breeding, use of antibiotics, and increased use of improved fertilizers."

We might grant that it is these factors that accounted for the spurt in labor productivity in farming after the middle thirties. But we would need to be reasonably sure, also, that they could and would continue on into the decade ahead of us. This means not merely that we would expect use of fertilizers, for example, to continue; it means that we would expect growth in the use of fertilizers, and improvement in their quality, to continue, and that we would expect, also, these to lead to further increases in yields. How much of the past spurt reflects temporary factors associated with the high level of farm income and short labor supply during World War II and later, remains a question. So, also, does the adequacy of the slight allowance made in selecting a rate somewhat less than the average of recent year.

A footnote to this section of the joint committee staff report opens up another question—the choice among alternate estimates of past trends. Kendrick's estimate of farm-labor productivity over the period 1910 to 1953 is 1.2 percent per annum, as compared with the estimate used by the joint committee staff—one derived by the Department of Commerce—of 2 percent per annum. When differences reflect improvements in the underlying data, as is partly the case here, no problem of choice arises. But part of the difference is the result of shifting the weight-base from 1939 to 1947–49. This shift is not an improvement. It merely provides an alternative estimate, and the choice must be made on other grounds.

Statisticians among us may find it amusing to consider the question. In looking forward from the current period to the future period t+10 are we projecting an index calculated on the weight-base t? And is the extrapolation to be made using the trend of an index on the weight-base t—10, or on the weight-base t? My offhand opinion is that we aim at projecting the index on the base t, and that the historical index should be on the base t—10. But that choice is arguable. A choice has to be made, for the alternatives may be expected to differ. Economic growth, we know, is definitely associated with relative price changes. That such changes may be expected to occur and should be free to occur is explicitly noted in the report of the joint committee staff.

As in the case of agriculture, the rate of increase selected for output per man-hour in private nonagricultural industry is somewhat below the recent average but above the 1910–53 average. The latter average is about 2 percent; the rate selected for projection is 2.5 percent. This assumption, the report states, "reflects crudely the effects expected from the high rate of investment and technological advances in recent years, which are assumed to continue over the next decade."

Here we may raise a question, first, about the strength of the impact of high investment upon output per man-hour. That the historical relation between capital investment and output per man-hour is affected by the presence of other important factors, is clear from a recent paper by Daniel Creamer.[4] Relative change in output per worker was only moderately correlated with relative change in capital per worker between 1900 and 1929, when change in each industry over this period is taken as the unit of observation. For manufacturing as a whole, when changes over different time periods constitute the units, the picture is even muddier. Between 1919 and 1929 capital per man-hour rose by 32 percent in manufacturing, while output per man-hour went up by 50 percent. But between 1900 and 1909, a rise of 32 percent—the same figure—in capital per man-hour was

[4] Capital and Output Trends in Manufacturing Industries, 1880–1948, Occasional Paper 41, National Bureau of Economic Research, 1954, pp. 71, 74.

accompanied by a rise of only 8 percent in output per man-hour. While none of us would doubt that investment contributes to the increase of productivity, it is not obvious how much may be expected at any particular time from a high rate of investment. So much seems to depend on what is happening to other things.

The second point is as important. "Technical advance" is a short and sometimes misleading term for a host of influences of which we know little more than the names which we have given them. These include not only technology in the narrow sense but also management and labor effort and efficiency associated with training and attitude, as well as a variety of institutional factors of importance. Current discussion of the rate and probable effects of automation have served to reveal our ignorance in that particular area. Nor do we know, to turn to another problem, whether output per man-hour would move up more rapidly than in the past if business cycles were moderated, as is assumed in the projections.

We can see why, in this connection, the joint committee staff report adds the highly qualified statement that "there is some evidence that a period of high investment, such as is assumed, would be accompanied by a rate of increase (in output per man-hour in nonagricultural industry) as great as 3 percent per year, which, if true, would result in adding about $30 billion at 1953 prices (that is, about 5 percent) to the potential annual gross national product in 1965."

The total population figures will be discussed at another point in the conference's program; we, therefore, need not examine them in any detail at this time. In any case, it would seem, it is the population of the group 14 and over in 1965 that is important for us. Except for minor questions about mortality and immigration, the size of that group can be reliably estimated from the population already in existence today.

However, the future fertility rate may affect the labor-force participation rate of women in 1965. The troubles encountered by the Bureau of the Census in projecting fertility rates are well known. In fact, the Bureau of the Census has already made significant revisions in the estimates which underlie the joint committee staff projections.

When we look into the future, it is difficult to say what effect continued high prosperity, such as is postulated, may have on the participation of women in the labor force, not only through its effect on births but in other ways as well. But the point is more general. Changes in labor-force participation rates have varied from one decade to another for other sizable groups besides women of child-bearing age. The Census Bureau has indicated its uncertainty about the future labor-force participation of older persons.

As for the decline in hours, it may suffice merely to mention the discontinuities revealed by the record, and the bearing this has on the assumption that the secular trend in hours may be projected over the next decade. Hours are strongly influenced by severe depression and war. These have been assumed out of the picture. If the other factors that affect hours lead to no significant change, such as was their net result over the past 20 years, then, as the joint committee staff report points out, gross national product in 1965 might be close to a tenth higher than the projected figure.

So far we have been considering the output side of the projections. There is also an income side. Naturally, the aggregate on the income side must be consistent with, that is, equal to, the aggregate on the production side. This criterion of consistency is met in the projections made.

But the criterion does not help in projecting the distribution of income, even if only by type of income. The income side is not given in detail in the report of the joint committee staff, but it is made clear that substantial continuation of the 1953 percentage division of income between property income and service income is assumed. This means, first, a considerable rate of increase in real hourly earnings, one approximately equal to the assumed rise in real gross national product per man-hour. It implies, second, approximate stability or perhaps even a slight decline in the rate of return on capital. This projected distribution of income is not out of line with average long-run experience, insofar as we can tell from our records. But here, too, we discover variation in the trend from one decade to another.

Another question arises with respect to the assumption that the income side of the projections is adjusted to the production side. The reverse is also true, as is noticed briefly in the joint committee staff report. What happens in the markets for labor and capital influences not only factor rates but also factor supplies, and thus the volume of output. The two sides of the account must, in fact, be calculated simultaneously. But we have only fragmentary knowledge of the

theory of production and distribution in an expanding economy. Anyone of a rather large variety of simultaneously determined and apparently consistent projections of income and output might look reasonable to our innocent eyes.

There is, further, an expenditure side on which most projectors, including the joint committee staff, are more explicit. Distribution of the 3.2 percent annual increase in GNP among types of expenditure (all, of course, in constant prices) is projected as follows: Consumer expenditures at 3.5 percent per annum, gross private capital formation at 4.2, and Government expenditure—with national-security expenditures held at approximately present absolute levels, which, of course, is lower than 1953—at only 1.1 percent. (If the base is shifted from 1953 to 1954 or 1955, the rate becomes 2.1 percent for Government expenditures.)

These projections mean an increase in the proportion of private gross capital formation to gross national product from about 14 percent in 1953 to about 15 percent or so in 1965, or of private net capital formation to net national product of about 6.6 to 6.8 percent. This increase in net capital formation, $11 billion in 1953 prices, is assumed to be financed by an increase of $3 billion in personal saving, $2 billion in corporate saving, and a reduction in Government deficit of $5 billion.

These, in turn, involve a number of further assumptions, some of which touch on such major problems as the connections between fiscal policy and the goals of full employment, economic growth, and price stability. It is here that the joint committee staff makes one of its excursions into the realm of policy, and turns to the view that the projections are designed to uncover problems. But the comment is brief—that Federal tax reductions can in some way "facilitate adjustments in consumer budgeting patterns," adjustments which may be required to take goods off the market.

The projection of personal savings is, with some hesitation, that of decline from 8 to 6 percent of disposable income. Support for this projection is a "consensus" of "a trend toward a somewhat lower savings rate." Raymond Goldsmith's figures, the longest available historical series, may possibly suggest a slight downward secular trend in the ratio of personal savings to disposable personal income (when savings are defined, as we must for consistency with the joint committee figures, to exclude consumer durables).[5] But a safer conclusion might be that the trend is approximately horizontal. As the joint committee staff report stresses, the statistics of savings are less reliable than in other areas, and we know too little about the factors that affect savings.

Indeed, the whole field of savings theory is in ferment. Exciting work is going on, here in Ann Arbor and elsewhere; Dr. Mueller referred to the work being done by Modigliani and Freedman. This work promises significant advances in our knowledge. At the moment, however, there are still differences of opinion about the reasons for the relative stability or slight decline of the personal savings-income ratio in the past. Nor, therefore, can there really be a general consensus of opinion about the future course of savings, even if the factors operating in the past persist into the future—factors like the rise in family income, the increase in wealth, the shift of population from farm to city, the change in size of family and in other structural characteristics of the population, and the change in the rate of return on capital. The report stresses that "judgments vary as to the weight each factor should receive, and even in some cases as to the direction in which it might influence the savings rate." But, in addition, we are not sure how all these factors will change. The changes in some of them are explicitly set forth in the projections; for example, a shift from the farm to the city and changes in the population structure. Others, however, are only implicit and lie deep.

There are also some new items that need to be added to the list of factors affecting saving. The very assumption of high-level employment in 1965—and during years intervening between now and 1965—is one. The uncertainty of income is surely a major reason why people put money aside for a rainy day. Consider, therefore, the possible implications, for savings, of 20 years of high stability of employment, and along with it penetration into the consciousness of the mass of the people, of the contribution of social insurance and other Government programs to the promotion of personal security.

As the report states in discussing the savings projection, "when approaching the problem of projecting for a period over a decade into the future, the possibilities fan out over a greater range than with many economic data." Indeed,

[5] A Study of Saving in the United States, vol. I, Princeton University Press, 1955, ch. III, sec. 4.

"equally rational analyses can be constructed which would justify placing the rate as low as 4 or 5 percent or as high as between 9 and 10 percent," rather than at the 6 percent selected. This means, of course, that not only the savings but also the investment and Government deficit projections, not to mention other variables, are in doubt.

Having touch on investment, let me add a further word. In the discussion of the demand for capital it is merely stated that investment opportunities will exist, that the sum projected could be financed, and that the postulated rise in corporate profits after tax should provide incentive. There is no systematic effort to discuss the subject. Nothing explicit is said, for example, about the capital-output ratio, of which much has been made in the literature. But we can understand the difficulties that would confront anyone who tried seriously to come to grips with the problem. As in the case of savings, not only is our knowledge of factors operating in the past scantier than we would wish, but it is difficult to know what to say about new factors. Here, too, we must ask, what effect might long experience with, and therefore increased confidence in, stable growth have on the demand for capital?

And what about the implications, for investment, of the assumption of a steady price level? Let me merely point to what seems to be only a technical question—the effect on depreciation charges, and therefore on calculated profits, of a shift from a period or rising prices to a period of stable prices.

Since I have referred to long cycles, I should mention also the possible bearing on projections of investment of such important components as building construction. Kuznets, who has been doing more work on the question of long cycles than anyone else of whom I know, has expressed the opinion that long swings in the rate of growth are likely to recur. Immigration's role may be smaller; but that of birth rates, for example, larger.

Long-range projections may be viewed as estimates made on reasonable assumptions which may provide the basis on which public and private planning may proceed; that is, as forecasts—conditional forecasts, of course, but nevertheless, forecasts. They may be viewed, alternatively, as goals to be striven for or as means of unearthing the problems that may be encountered in attaining these goals.

Do they really have value for these purposes? When we view projections as forecasts, our first complaint, I daresay, is that they usually fail to cover the crucial questions. As we look 10 or more years ahead, are not the really crucial questions whether the cold war will heat up, whether we will see any serious depressions, whether price levels will change appreciably?

Let us grant immediately that economists are entitled to confine themselves to conditional forecasts that exclude the possibility of war. But are we ready to grant that they may properly assume the avoidance of severe depression? And if we grudgingly say "Yes" to this question, must we be satisfied with projections that also assume no inflation?

With this off our chests, we may consider the projections as they are, with the conditions that are attached to them.

When we view these projections as conditional forecasts for general purposes, our discussion perhaps boils down to this conclusion. In the absence of adequate knowledge of the process and causes of economic growth, the projections should be presented not as unique quantities or as unique quantities qualified with some textual observations, but as a variety of alternative possibilities, weighted (to the extent possible) with the aid of an analysis of historical experience.

I can imagine the complications that would result from the variety of combinations possible—all internally consistent—if the projections were to be made in terms of the many factors considered by the joint committee staff and by other projectors. For what I have in mind is something more complicated than the threefold type of estimate presented, say, in the Twentieth Century Fund study of America's Needs and Resources. The variety of combinations would constitute a frequency distribution of alternatives corresponding to just 1 of the 3 estimates in that list. But the moral would be quickly drawn. The morass of figures could be avoided, and perhaps little lost, if the whole procedure were to be drastically abbreviated. A few alternative projections of gross national product, based simply on a set of assumed trends as to labor force and income per member of the labor force, might suffice. If general expectations of the sort we all have concerning future long-term growth need to be put into quantitative form, these crude estimates might serve that vague purpose. They would serve it more cheaply, and with less risk of misleading the man

in the street—at any rate so long as so much of the basic knowledge needed is still to be acquired.

As for long-term projections viewed as goals, the difficulty here, of course, arises out of a simple fact. Our people are free to make their own decisions. The appropriate national goal, therefore—excluding military considerations—is not a particular level of gross national product, or employment, or even productivity. It is, rather, an environment within which our people may be able to work and live and improve themselves in the manner dictated by their moral sense and their zest for life.

Probably the major objective of projectors is to discover what is needed to further our national goal. This, of course, is the objective of all scientific work in economics. I wonder, however, whether any of the elaborate projections of the economy as a whole so far made—that is, projections of the sort that we have been discussing—have helped us significantly to get closer to this objective. It seems to me highly doubtful, in the present state of our knowledge, that a serious claim can be made that long-term projections might help to uncover inflationary or deflationary "gaps" or similar threats to our economic advance. The responsible advice that we as economists have so far to offer, for safeguarding and strengthening the sources of economic progress, suggestions for stimulating competition, and so on, has not been improved by these projections. To the extent that resources have gone into them—resources that could have been used to widen our knowledge of the connections among economic variables—we are not as close to our objective as we might have been.

A final word to make my position clear. I do not reject attempts to outline the several probable futures in general terms. We all have to make such efforts. But I must confess to feeling uneasy when I encounter a set of numerical projections for the economy as a whole that seems to provide a carefully drafted, detailed, and scaled map of the road before us. It is hard to see how this can be useful in the present state of our knowledge. Those of us who have attempted to plot in some integrated and quantitative fashion the historical development of the several parts of the American economy, and to trace their subtle interrelationships, are keenly aware of the gaps in our facts and in our understanding of these facts. Many of these gaps are open even today. Even the current state of affairs is seen as through a glass, darkly. We are simply not yet ready to do the sort of job of probing the future that we would like to do and hope someday to be able to do. Must we pretend to do what cannot yet be done?

Dr. FABRICANT. I have the feeling that in making these projections we have been performing arithmetical exercises of doubtful value. Indeed these exercises may be diverting us from more important analyses by posing artificial problems like the danger of a savings—investment gap 10 or 20 years hence. We need to further our understanding of the causes of economic development if we are to improve our projections.

We must go inside the aggregates to which so much of our attention is being devoted.

I have already mentioned that a characteristic of economic development is the transfer of work from the household to the market economy. The two sectors grow at different rates. This difference is but one example of many such differences. Growth in the volume of goods and services per capita is accompanied by constant fluctuation in the kinds and quantities of goods and services produced, in the types of industries in which workers and capital find employment and in the distribution of activity among geographical areas.

For economic progress takes place through the development of new products, better materials, more efficient machines, and superior methods of organization and this means also that old products become obsolescent, inferior materials are discarded, one occupation loses workers to another. Economic growth necessarily means diversity in rates of growth in different parts of the economy and in fact actual decline in some sectors.

This divergence of rates of growth in the several parts of the economy is a major source of some of our difficulties in measuring the economic growth, for in our measures of the aggregate we must somehow express this great diversity in a single figure. It also makes dangerous generalizations about aggregate growth that are based on any limited components of the aggregate.

But this divergence is even more important for another reason. It points also at the basic causes of our growth and at the policies that need to be strengthened if we are to maintain growth here and in the economies of our friends.

The development of new and improved products, materials and methods, and the transfer of resources from declining to expanding sectors of the economy reflect the efforts of our people to improve themselves economically. These essential steps in the process of economic growth do not happen by themselves. Businessmen seek new sources of profits. Workers move to better paying jobs. Investors put their capital into industries with superior prospects. Parents educate their children. Government plays a part by maintaining competition and investing in necessary public improvements. Economic growth results from enterprise and investment on the part of all sections of the population.

Each section has an essential contribution to make. Each must be permitted and encouraged to make that contribution. There is far too much emphasis in our thinking and in the thinking abroad on the role of some one factor, whether that be government, the entrepreneur, the investor, or the saver.

Thank you.

Reprsentative BOLLING. Thank you, sir.

The next speaker this morning is Prof. Gregory Grossman of the department of economics of the University of California and presently working at the Russian Research Center of Harvard University.

He is already the author of a number of important studies on Soviet economic affairs, building a high reputation for his careful and objective scholarship.

We are pleased to have you, Dr. Grossman, to discuss growth of the Soviet economy.

STATEMENT OF GREGORY GROSSMAN, RUSSIAN RESEARCH CENTER, HARVARD UNIVERSITY

Dr. GROSSMAN. Thank you, Mr. Chairman.

It is a privilege indeed to appear before your subcommittee this morning.

I should also like to remark that I agree wholeheartedly with the qualifications to any study of economic growth which have just been introduced by Dr. Fabricant.

It is never easy to summarize in a few minutes the growth of a complex industrial economy.

It is particularly difficult to do so in the case of the Soviet Union, where the published statistics are sketchy and often intentionally misleading, where money values are of uncertain meaning, where the development itself has been (at least by our standards) extremely uneven, and where there have been very few periods that can be even

remotely characterized as normal. To anticipate your interests and at once to simplify my task I shall concentrate on the most recent past and on the immediate prospects, sidestepping both the fuller historical record of Soviet economic development and long-range projections into the future.

The job of repairing wartime damage in the Soviet economy was not, by and large, completed before 1950, so that if we wish to study the recent record we must restrict our attention to the period of the fifth 5-year plan, which ran from 1951 through 1955.

This is obviously not a very long period on which to rest an appraisal of the Soviet rates of growth; nor were the years particularly normal for they witnessed the Korean conflict, Stalin's death and the change in leadership, and several major revisions in domestic and foreign economic policy. Nonetheless, it may not be entirely useless to examine briefly the record of accomplishment over the last half decade.

I need hardly stress that the creation of the implements of war and of the sinews of industry, both products of heavy industry and of construction, enjoys the foremost priority in the Soviet pattern of development. While I have no direct evidence to offer regarding the growth in the output of munitions over the 5 years in question, such indirect economic evidence as can be marshaled corroborates the general public impression that progress in this area has been a rapid one. As to civilian goods, the output of many important products of basic industry—fuel, power, metals, basic chemicals, and building materials—increased by 50 to 90 percent over the period, or at the average rate of 8½ to 13½ percent per year. Construction activity and the output of civilian machinery increased to approximately the same degree. The output of major industrial consumers' goods—processed foodstuffs, textiles, and footwear—rose by some 30 to 60 percent, or 5½ to 10 percent per annum on the average, although production of certain consumer durables, still largely in the luxury class in the Soviet Union, grew much more rapidly.

Bracketing together all industry and construction we might find, in my opinion, an overall increase of, say, 60 to 70 percent, or 10 to 11 percent per year. Though very high by western standards, this overall rate of growth is probably even somewhat lower than that which obtained during the first two 5-year plans, 1928–37.

Since agricultural production only barely kept ahead of the growing population it was primarily industry and construction that enabled the national product as a whole to rise quite rapidly, too.

By very rough estimate, the Soviet gross national product may have grown between 1950 and 1955 by some 6 to 7 percent per year on the average. Although the total population increased by almost 9 percent, and the urban population by 20 percent, per capita consumption levels improved very considerably over the 5 years in question, with the major exception of urban housing where the situation continued to be very tight even by Soviet standards. And lastly, activity in the fields of science, education, and medical care expanded greatly.

This creditable, though spotty, performance took place in spite of very large diversion of resources to military end-use and an apparently growing export of capital to China and other countries in the Soviet orbit. How was it done? There is no miracle or mystery about the rapidity of Soviet economic growth. Let me list some of the major factors that tend to explain it:

(1) An extremely high and steadily growing rate of gross investment probably averaging a quarter or more of the gross national product for the years in question. In our much richer country this proportion has varied in recent years between one-sixth and one-fifth. A comparison of the rates of net investment, that is allowing for depreciation of capital, would probably go even more in favor of the U. S. S. R.

(2) Very high selectivity in the orientation of investment, with industry, transportation, and the building industry receiving over half the total, and of this—heavy industry getting the lion's share. It is this pattern of investment—the plowing back of much of the output of heavy industry into its own expansion—that has enabled the Soviets to develop very rapidly their capacity for the production of capital goods and to undertake investment.

(3) Rapid growth of the nonagricultural labor force (by 25 percent over the fifth 5-year plan period), and very extensive training in scientific, technical, professional, and industrial skills.

(4) In agriculture, expansion of the area sown to crops by 27 percent.

(5) Continued large scale borrowing of western technological progress combined with some indigenous technological advances.

(6) Full—though not always effective—employment of labor; some improvement of incentives to labor and management, particularly in agriculture; and such beneficial effects on productivity as rising standards of living and general educational levels may exert.

(7) And last but not least, the firm determination of the regime to industrialize with the utmost speed, not bounded by the checks of a democratic process.

Most of these factors will carry on into the near future, so that continuing high rates of growth should be expected, although some retardation in these rates may well be anticipated for reasons to be mentioned presently.

Thus the current (sixth) 5-year plan, which is to run from 1956 through 1960, provides for a 65-percent increase in total industrial output and a similar increase in investment activity, that is about the same as or only slightly less than what was in fact achieved over the preceding 5 years.

This target may well be approximately attained. On the other hand the planned 70-percent increase in gross agricultural output seems to stand a very much poorer chance of fulfillment, as it largely rests on a highly optimistic intention to expand graincrops to about the same degree.

As a result it is not likely that the gross national product will grow any faster if as fast during the second half of the fifties as it did during the first half.

In looking ahead, we can discern both accelerating and retarding elements in the Soviet economic picture; among the factors tending to accelerate growth I might mention the rapidly expanding capital goods industry and its corollary, a rising rate of investment out of national product and the fast accumulation of technical and scientific skills. Perhaps somewhat greater flexibility in administration and planning, some improvement in incentives belong here too. The list of retarding elements is longer. It includes the difficulties in agriculture and the closely related problem of labor shortages; the

necessity to allot a higher share of investment to transport, housing, and other sectors which have hitherto been relatively neglected, but cannot be so much longer; the need to begin replacing obsolescent equipment and to invest in such capital-intensive pursuits as automation and atomic power generation; the virtual absence of suitable additional land to expand crop production; the appreciable, though as yet not very serious, exhaustion of the better mineral deposits; and perhaps a decline in immediate opportunities for further technological borrowing.

Lastly, and I shall return to this point in a moment, overshadowing all these factors in its implications for the rate of Soviet growth is the degree of diversion of resources to military end-use.

I shall devote the few remaining minutes to a discussion of some of these points. We have heard much lately of difficulties in Soviet agriculture.

With population growing rapidly and nutritional standards low, a stagnant agriculture such as obtained in the last years of Stalin's life unquestionably threatens the very basis of a country's existence. But the extensive measures taken since by the new leadership seem to be bearing some fruit, so that at least for the immediate future the danger of retrogression has been stayed.

We must not be misled by the record grain crop collected this year, an achievement that Khrushchev regards as a personal triumph and as a source of strength in the international arena.

The longer outlook is still quite uncertain in this project.

In terms of growth prospects, the significance of the agricultural problem is that attempts at its solution will absorb so much capital and detail so much labor as to retard the expansion of those sectors of the economy which the regime wishes to expand most.

While in its early years Soviet economic development was carried along largely by enormous transfers of manpower from villages to the cities, in the present 5-year plan the agricultural population is apparently expected to maintain its size, and nonagricultural employment is expected to rise by 10 to 15 percent, which will barely compensate for the promised shortening of the workweek—If that shortening, of course, takes place.

While the shortage of housing is probably another reason for holding down the size of urban population, we must also bear in mind that for demographic reasons the additions to the labor force will be quite small for the next several years.

With nonagricultural labor scarce in this sense, renewed emphasis is being placed on its productivity. For instance, all of the scheduled increase in industrial output is to come out of the growth of man-hour productivity. This necessitates not only better work organization but also very extensive modernization and replacement of equipment.

Hence the heightened emphasis on automation, on borrowing of foreign technology on an enormous scale, and on industrial research. Labor productivity in many industries and individual processes is still so very low by our standards that a large potential for improvement clearly seems to exist.

At the same time Soviet machine-building capacity and engineering skill have by now reached a level where such a large-scale modernization effort can be launched, though it will of course be expensive in terms of capital.

Yet, productivity targets have not in general been met in the past, and it remains to be seen how successful this second Soviet technological revolution will be in this regard. Should the rise in productivity fall behind plan while agriculture continues to perform short of Soviet expectations, a very tight situation with respect to both capital and labor may develop, and Soviet professions of concern for the consumer and the worker may be put to a severe test.

But the dominating element in the picture—and it is largely an unknown—is the degree of diversion of resources to military end-use in the near future. The magnitude of such diversion at present must be enormous. Though I have only the questionable budgetary figures to go by for any overall appraisal of the Soviet military effort, it must surely be currently withdrawing a volume of resources at least half as large, and possibly nearly as large, as those going into net investment.

Further the physical nature of the resources going into defense is such that given the intention they could, by and large, be much more easily shifted to investment use than to the satisfaction of consumer needs, at least in the short run.

Moreover, given the Soviet system of priorities, it is reasonable to expect that precisely this type of shift would be preferred by the regime, though perhaps some of the resources may also be channeled to help solve the agricultural problem and to expand economic and technical assistance abroad. Thus, we may well expect that any major disarmament on the part of the Soviets, without here even affecting basic weapons development and research, would sharply raise the volume of capital formation, and hence would substantially boost the speed of industrial development and the rate of growth of the national product. We may note that the two times when the opposite happened, that is, when military preparations were sharply stepped up in the late thirties and again at the time of the Korean conflict, investment was forced to bear, and bear heavily, the brunt of these decisions.

Needless to say, even a few additional percentage points per year in the rate of growth of Soviet industrial output and gross national product may shift decisively the balance of world economic power a decade or so hence.

I thank you.

Representative BOLLING. Thank you.

So far this morning we have been given brief pictures of the development of the United States and Soviet economies, and have been afforded some discussion of the problems of making comparisons over time and between nations. Now we will have an opportunity to hear the discussion broadened into a balance sheet comparison, as it were, of the economic strength not alone of the two major powers, but also of associated states of the Communist and non-Communist worlds.

Our next speaker is one of the best known analysts of Soviet affairs because of the position he holds with the New York Times.

We are glad to have with us Dr. Harry Schwartz, the specialist on Soviet and satellite affairs of that newspaper. Dr. Schwartz has served in Government as well as contributing widely quoted articles to the Times. Today drawing upon his work in economics of the Iron and Bamboo Curtain countries, we will be interested in having his views on what is a very confused subject.

Dr. Schwartz?

STATEMENT OF HARRY SCHWARTZ, SPECIALIST ON SOVIET AND SATELLITE AFFAIRS, THE NEW YORK TIMES

Dr. SCHWARTZ. Thank you, Mr. Chairman. I am grateful for the privilege of appearing before this committee. Before commencing with my testimony, and I must apologize for not having a prepared statement, I should like to first have it noted on the record that I am speaking for myself and not for the New York Times, and secondly, I should if I may, like to introduce just two pages of tables, basic tables, into the record.

Representative BOLLING. They will be placed in the record.

Dr. SCHWARTZ. Thank you, sir.

(The documents referred to are as follows:)

Estimated production of coal, oil, steel, and electricity in 1938, 1950, and 1955 in the entire world and in the parts of the world which were Communist and non-Communist in 1955

I. 1955

Commodity	Unit	World	Communist	Non-Communist
Coal [1]	Million metric tons	1,800	700	1,100
Oil	do	778	84	694
Steel	do	269	62	207
Electricity	Billion kilowatt-hours	1,521	260	1,261

II. 1950

Coal [1]	Million metric tons	1,580	460	1,120
Oil	do	523	44	479
Steel	do	189	36	153
Electricity	Billion kilowatt-hours	954	140	814

III. 1938

Coal [1]	Million metric tons	1,307	372	935
Oil	do	272	37	235
Steel	do	110	27	83
Electricity	Billion kilowatt-hours	460	70	390

[1] Coal includes hard coal equivalent of brown coal and lignite output.

Sources: Derived from data in the United Nations Monthly Bulletin of Statistics, October 1956, pp. x and xi; Statistical Yearbook of the United Nations, 1954, passim; official statements of the governments of the Soviet Union and Communist China; Voprosy Ekonomiki, No. 3, 1956, p. 165.

Estimated output of coal, oil, steel, and electricity in the Communist countries in 1956 and the 1960 output goals for these countries

Commodity	Unit	Estimated 1956 output	Planned 1960 output
Coal [1]	Million metric tons	750	1,000
Oil	do	97	165
Steel	do	68	95
Electricity	Billion kilowatt-hours	287	470

[1] Coal includes hard-coal equivalent of brown coal and lignite output.

Sources: Estimates of 1956 production obtained by adding announced anticipated 1956 output of the Soviet Union and Communist China to the 1955 production of other Communist countries. This assumes other Communist countries, in 1956, will be unchanged in total because of Polish and Hungarian difficulties; 1960 plan figures based on data in Kommunist, No. 7, 1956, pp. 68-69.

Output in Communist Eastern Europe[2] of coal, oil, steel, and electricity in 1938, 1949, and 1955

Commodity	Unit	1938	1949	1955
Coal [1]	Million metric tons	188	271	395.9
Oil	do	6.6	5.6	12.2
Steel	do	5.9	7.4	13.7
Electricity	Billion kilowatt-hours	24.8	41.1	73.8

[1] No allowance made for different caloric values of hard coal, brown coal, and lignite.
[2] Includes Poland, East Germany, Czechoslovakia, Rumania, Hungary, and Bulgaria.

Source: Voprosy Ekonomiki, No. 3, 1956, p. 165; United Nations Statistical Yearbook 1954 passim; United Nations Economic Survey of Europe in 1955, pp. B–36, B–41.

Dr. SCHWARTZ. We meet at a time of stupendous change, change which has caused many analysts including myself to reexamine old preconceptions and to glimpse the possibilities of new horizons. I think it is not unfair to say that, say, 6 months ago many analysts in this field were hypnotized by what seemed to be an almost fatalistic and inevitable trend for Communist economic power to grow at fantastic speed and—within the relatively near future as nations must measure their future—to overtake and then surpass the economic and therefore also the military power of the free world. In the last 2 months, however, a series of developments, particularly in Poland, Hungary, and Northern Vietnam have called this fatalism, this hypnotism, sharply into question.

I would argue that we now have a new uncertainty in any effort to measure the future of Communist economic growth. This arises from the political tensions built up within the Communist-ruled countries by the Draconian methods used to achieve the very substantial growth obtained to date.

I shall return to this point shortly but I think it will be useful to first look at the record. I have tried to draw up a very tentative and approximate comparison of the production achievements of the total Communist bloc, that is everything from East Germany through Russia, China, North Vietnam, North Korea, and Mongolia, and including the Eastern European countries of course on one side, and the non-Communist world on the other. The latter includes both countries firmly in what has been called the Western Alliance and countries which consider themselves neutrals such as India. I have given the absolute figures in the tables I have put into the record, sir. I should merely like at this point to make a few comparisons. Comparisons of economic growth depend very greatly upon the base points one selects.

For that reason I would like to consider the record over two stretches of time, first between 1938 and 1955 and secondly between 1950 and 1955. We get a rather different picture in these two periods. I shall confine my remarks to four basic commodities, coal, oil, steel, and electricity, inasmuch as there are no satisfactory data for gross national product or national income for the total Communist world and for the total non-Communist world. If one looks at these commodities coal, oil, steel, and electricity between 1938 and 1955, one gets a picture which is not too disquieting, with perhaps the possible exception of coal. In the case of coal the Communist world increased its production between 1938 and 1955 by 80 percent roughly.

The non-Communist world increased its production by under 20 percent. On the other hand, since coal is primarily important as a fuel, this Communist advantage would seem to be at least partially if not entirely overshadowed by the rather different record with respect to petroleum. In the case of petroleum the Communist world increased its production between 1938 and 1955 by about 125 percent. That is the percentage of gain. Whereas the non-Communist world percentage of gain was almost 200 percent, substantially higher.

In the case of steel, the percentages of gain are almost equal: 145 percent for the Communist world between 1938 and 1955 and 150 percent for the non-Communist world. So if any advantage exists is on our side. Finally in the case of electricity the Communist world percentage of gain between 1938 and 1955 is 270 percent, and the non-Communist world 225 percent.

While this is a mixed record, it is not one which by itself might be thought to give rise to very great concern in view of our overall absolute lead. Of course, it should be remembered that 1938 was a year of substantial unemployment in the non-Communist world, a year in which there was much unused capacity so that in part the growth achieved by the non-Communist world between 1938 and 1955 was actual growth in the sense of the addition of new facilities plus growth resulting from the utilization of previously idle capacity and manpower.

A rather different picture however is obtained if one looks at the situation between 1950 and 1955. It is this picture which has given rise to alarm. In coal for example, the Communist world increased its production by about 45 percent, between 1950 and 1955. In the non-Communist world, however, coal production remained virtually unchanged.

In oil, the Communist world almost doubled its production between 1950 and 1955. The non-Communist world increased its production by about 45 percent. In steel the Communist world increased its production by about 70 percent between 1950 and 1955, the non-Communist world by about 35 percent.

In electricity the Communist world increased its production by about almost 90 percent between 1950 and 1955. The non-Communist world over the same period increased its production by about 55 percent. In all 4 of these commodities therefore we see a very substantial lead in rate of growth over these past 5 years. We are obviously dealing with a very dynamic system when we speak about the Communist world and our competition with it.

Now it may be helpful if I illustrate my remarks a bit further by talking about Eastern Europe, which is also a key part of the Communist world.

In Eastern Europe we find this record: Between 1938 and 1955, coal production increased over 100 percent. Oil production increased about 90 percent between 1938 and 1955. Steel production increased more than 100 percent. Electricity production almost tripled, roughly tripled between 1938 and 1955.

Now these are very substantial gains. Let me focus a little more sharply on one commodity in the more recent period. In the case of steel, between 1949 and 1955 Communist Eastern Europe—and this excludes Yugoslavia—almost doubled its production, going from 7½ million metric tons to almost 14 million metric tons.

However, the four chief producing nations of Western Europe—England, France, Western Germany, and Italy—increased their steel output in the neighborhood of 60 percent between 1949 and 1955, from 38 million to almost 60 million tons. This year, I might add, these four countries of Western Europe will produce about 68 million tons of steel, an increase over 1949 of 75 percent.

There we have a little more reassuring picture in the sense that, while there has been great dynamism in Eastern Europe, there has been very great dynamism also in Western Europe. The latter dynamism has not only been confined to Western Germany, which is perhaps the single outstanding example of economic growth in Western Europe in recent years.

There is, however, at least one major difference between the economic growth in the Communist world and in the non-Communist world which has to be taken into account.

The economic growth in the Communist world has been produced by the use of tremendous compulsion. The system we call Stalinism, with its related unpleasant features of secret-police control, slave-labor camps, complete repression of freedom of speech, freedom of press and the like, was required because the Communist's goal of achieving maximally rapid increase of heavy industry could only be achieved at the cost of keeping down the standard of living of those people.

Put another way, if there had been a market economy operating in the Communist world in past years, there might very well have been economic growth, substantial economic growth, but it probably would have been slower. Moreover that growth certainly would have been different in composition; housing, food, clothing would have received much higher priorities than they actually did in fact.

Now the enormous tensions created by the compulsion and coercion used to secure the rapid economic growth in the Communist world are now finally coming home to roost. One result has been the peaceful political revolution in Poland which brought Mr. Gomulka to power. A second result has been the very violent armed revolution in Hungary which is still going on, according to the news reports. There has also been the smaller scale, but still interesting, armed revolt in Northern Vietnam. All of these are primitive expressions of the resentment of the people affected at the sacrifices they have been forced to undergo in order to achieve this growth.

I would disagree somewhat with Dr. Grossman, much as I respect him and his opinion. I do not think that the chief unknown variable in the future, if we regard either Soviet or Communist world economic growth, is simply the resources diverted to military purposes.

This is certainly a major variable. The really key variable I would argue myself, however, is the conclusion which the leaders of the Communist countries, including the Soviet Union, draw from the revolts in Eastern Europe and in Northern Vietnam of the past 2 months. The possibility arises that because of the political difficulties, the political discontent which these revolts have symbolized so very vividly, the general line of the Communist Party may be changed. Mr. Khrushchev has defined the line as holding that heavy industry must always and under all conditions increase at a rate faster than the production of consumer goods and of items involved in the standard of living. This general line may be changed.

Certainly we know that in Poland Mr. Gomulka in his pronouncements since becoming first Secretary of the Polish United Workers Party, which is the Communist Party of Poland, has indicated his intention of cutting back very sharply upon investment in heavy industry and of trying to focus resources to the maximum extent possible upon improving the standard of living of the people. Mr. Gomulka has gone so far in fact as to let it be known through his subordinates that he would very much like a loan from the United States, and there has been some talk for example of Poland desiring a loan of $200 million to $300 million from the United States simply for raw materials.

I might add in that connection that a Communist economist has told me recently that the Communist world overall has a severe shortage in at least three fields today: grain, textile materials, particularly cotton, and fats and oils. This despite the very large grain and cotton harvest in the Soviet Union this year.

I do not think this is the time for any fancy or long-range projections. I do not think the leaders of the Communist world themselves know where they are going to be 5 years from now and certainly not 10 or 15 years from now.

They are faced today with what is in many ways the most serious political problem of their history. Their people want a better standard of living and they want it fast. There is no question but this has produced already major changes in economic policy in Poland.

By implication the Kadar puppet regime in Hungary has promised that if the situation in Hungary normalizes it, too, will make changes in economic policy according to those in Poland. The Soviet leaders are under the same pressure from their people. In short the possibility—and I stress the word "possibility"—arises that this political discontent may cause some fundamental changes in economic policy throughout the Communist world.

If this should happen, this might very materially slow down the rate of growth, particularly in heavy industry, of the Communist world.

While I find a certain degree of comfort in that, I must stress that this is simply a possibility and, in the meantime and perhaps most appropriately, I might conclude on another note. Even if the rate of growth of production in the Communist countries declines, any major depression in the Western World would cause the careful projections of the people like Dr. Keezer to become simply arithmetic exercises. If, in the future, the world were to be faced by a Western World full of unemployment and economic misery as against a Communist world which was improving the standard of living of its people, the political consequences of that would be disastrous in the struggle between freedom and Communist slavery. I should think it must be the key objective of our national and international policy to assure that there is a healthy free-world economy in the future which is capable of competing with the Communist world whatever line or policy on economic growth the Communist world adopts.

Thank you.

Representative BOLLING. Thank you, sir.

Our final witness this morning is Prof. Martin R. Gainsbrugh, chief economist of the National Industrial Conference Board and

adjunct professor of economics at New York University. Mr. Gainsbrugh has served in Government, including many advisory councils and committees such as for the Bureau of the Census, Federal Reserve, Bureau of Labor Statistics, and Council of Economic Advisers. He is the author of a number of economic studies. The National Industrial Conference Board is one of the most prolific and best producers of economic series, often presented in clear, graphic form.

With his great practical experience in handling economic series, it is especially appropriate that Professor Gainsbrugh discuss for us the problems of economic projection, as they bear on our discussion this morning.

STATEMENT OF MARTIN R. GAINSBRUGH, CHIEF ECONOMIST, NATIONAL INDUSTRIAL CONFERENCE BOARD

Mr. GAINSBRUGH. Thank you, Mr. Chairman.

I have taken as my target for today the development of a check list to be kept in mind by users of economic projections, particularly comparative economic projections.

The essence of what I have to say might be put in capsule form to this effect:

If you are using an economic projection, shake well before using.

Much of what I have set down will serve to underscore what Messrs. Fabricant and Schwartz have already said about the limits of economic projection.

Economic projections are always difficult, even for a country well stocked with basic data. It is well to recall the numerous forecasts that were made toward the end of World War II, most of which were fairly wide of the mark. And these were short-range forecasts, so that under one line of reasoning the results should have been closer to actualities.

Our focus here today is in comparing projections for two or more countries. The difficulties are, of course, multiplied in such an endeavor. And yet, despite the dangers that are inherent in all such forecasts, it is often necessary to make some types of predictions. It is possible that continued effort in this direction will eventually result in a fair degree of accuracy. Most of the projections we have had postwar have not made sufficient allowance for the many complicating factors in our economic life. These are usually assumed away or held constant, and the reservations and the limitation are tucked away in the footnote or the appendix to be noted only by the most careful of readers.

It is these particular points that I would like to emphasize.

Going on with the reservation list, first is the inadequacy of long-term data; we are just beginning to develop a statistical skeleton of long-term trends in United States. We have not yet put bones on this framework. Our official national figures were developed only two decades ago. The gross national product figures are a byproduct of the research of World War II and our national balance sheet is a development of the last 10 years.

There is a distressing lack of information on long-term growth of most nations in the world. It is only lately that there have been efforts made in the United States to trace, in measurable form, our economic progress. And even this work in the United States shows

particularly poor results the further back we go in time. The margin of error is greater. For most nations of the world, data are simply not available to permit us to get a long-term picture.

What data we have are largely concentrated on commodities and even there we assume that our distributive and transportation margins remain constant. That is the first reservation, the lack of long-term data from which to derive measures of long-term growth.

The second reservation: Changes in industrial composition or in product mix. Some progress has been made, even with the inadequate data that exist. A favorite technique has been to attempt to determine the pattern of development in the past and to project that into the future. Such a crude approach, of course, assumes that no discontinuities will appear in the economic life of the future.

For example the growth of the United States during the past 100 years was characterized by shift to a rapidly growing industrial economy.

During the latter part of that period, the growth was of such a nature as to reduce the relative importance of agriculture.

As of now, most projections assume the industrial character of our Nation will either continue its past trends, for example, agriculture will become even less important, or it will remain approximately the same as it is now. But since none of us is given the power to peer into the future, it's obvious that these assumptions may be wrong. Even more important, the inclusion of defense spending, for example, heavily conditions the growth performance of the past decade. Can we safely project the current defense demand, in absolute or relative terms, for the decades ahead.

Or how about the shift to the service industries to which Dexter Keezer referred earlier? These are typically low-value-added industries. How will that shift, for example, affect the productivity figures? A shift to the service industries should lower rather than accelerate the productivity trends. A third reservation, technically a most important one, is selecting the best fit for the data to hand.

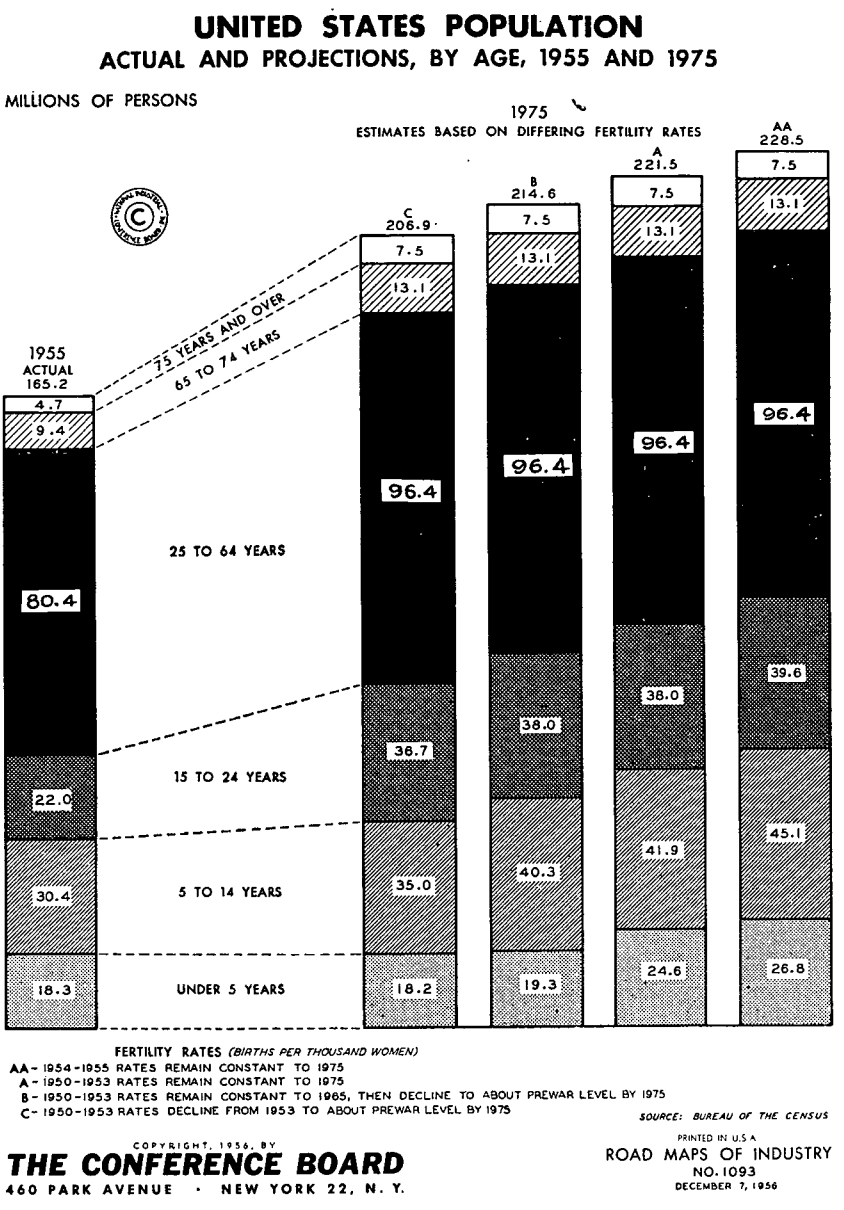
The analyst is faced with the problem of first selecting the proper pattern of change to describe the past; that is, the type of trend curve that best fits the data to hand. Often a great variety of curves can provide a fairly adequate description; each, however, yielding different projection levels for the future. Furthermore, different segments of the past with different rates of change may be chosen for extrapolation.

For example, in the case of projecting population estimates, the extension of the pre-World War II data yields a significantly different outlook than would be extrapolated from using the trend during the forties and the fifties.

I would like to submit for the record in this connection a roadmap we have just released of the United States population and its projection through the year 1975. Using one set of assumptions, the Census Bureau gets a population of 207 million; using another set of assumptions, it gets a population of 229 million. There is a difference of 10 percent.

Mr. BOLLING. That chart will be included in the record.

(The document referred to is as follows:)



Mr. GAINSBRUGH. In the case of productivity, coming directly to the data exhibited this morning, choice of the typical long-term pattern or of the pattern of the last decade would yield significantly different answers. Even a difference of just a half percent a year would, compounded over the long run, make for substantial disparities.

For example, a 2-percent-a-year increase over a 25-year period results in a gain of 64 percent, while a 2.5 percent yearly increment means a gain of 85 percent.

See the leverage you get from just a half-point percentage projection.

My fourth reservation is about our inability to allow for social-political changes. Even assuming that the difficulty of selecting a curve and representative time period is solved, can the past be projected into the future?

In other words, will the changes in the future be within the rate of changes that characterized the past, and will they yield a realistic persistent pattern?

Consider what a projector for the United Kingdom would have done had he looked at the long-term rate of growth of the United Kingdom through 1914 and projected that to mid-20th century and how far he would have been wrong, again because of social-political changes. Another illustration: The continued entrance of more and more women into the labor force will depend upon job opportunities in the future but will also be influenced by the set of social values in existence in the future. Will there be as great emphasis on extending the material standard of living as, for example, there has been in the past decade?

The fifth reservation is the influence of prevailing psychology upon judgment.

What the analyst making the projection will emphasize may depend quite often on the psychological atmosphere that exists at the time. For example, during most of the thirties the stagnation thesis was propounded by a great many economists. At that time projections were of the pessimistic sort.

Few could see the possibilities of sustained growth in the United States.

In contrast to that period, we in the postwar period have been largely optimistic. Everyone now it seems sees little, if any, barriers to the continuation of our economic growth. There are fashions in projections as in other branches of the arts or sciences. Furthermore, judgments may differ legitimately with respect to just how past experience should be modified when extrapolating the future.

The sixth reservation surrounds the use of total population or per capita projections. Projections of growth have most often been stated in aggregate terms. This is the most convenient method of operation for the analyst.

Accordingly, either gross national product, or net national product, or some variation thereof has been used as an overall measure. In some cases if a measure of economic welfare is desired, these aggregates are expressed in per capita terms; not too frequently, however, in United States-U. S. S. R. comparisons.

In the first instance, the use of aggregation, such as gross national product or its variants, may not be too meaningful. The same measure may have different implications in comparing countries with different economic systems or in different stages of economic growth.

That is the point that Dr. Fabricant made.

Conversely to take per capita output as a unit of measurement suggests that population is a passive factor in the development of any nation, particularly the U. S. S. R. But the interaction between an

industrial economy and the growth of population is an important factor in any assessment of growth.

Let me offer one example from a forthcoming publication of the conference board. This is a statistical handbook of the U. S. S. R. Dr. Harry Schwartz acts as our commentator in this new statistical handbook for the U. S. S. R. Dr. Schwartz points to one of the difficulties that Russia will be experiencing in the next decade. In 1945 there were 15 million fewer persons than in 1940 as a result of war losses, the drop in the birthrate and the rise in infant mortality. Now there are approximately 8 million less children in the first 4 grades in Soviet schools than in 1940.

In the next decade, this lowered number of children will in turn affect the size of the labor force. The relatively small number of new entrants into the labor force will present a problem to a growing Soviet economy.

The seventh reservation refers to the inadequacies of capital formation estimates. Economists stress the connection between capital formation and economic growth. We have heard that again this morning. An important relationship exists between these two variables, although no one has yet been able to state precisely the relationship. However, as usually expressed in the national accounts, capital formation relates primarily to expenditures on physical capital, such as machinery, buildings, roads, harbors, and the like. No compilation as yet regards expenditures on education, research, recreation, and health facilities as a part of capital formation. Yet, if we are to make any accurate projection of economic growth, such expenditures on welfare may play an increasingly important part in the future. They not only contribute to individual welfare, but even more in point to greater productivity of the economic system.

The eighth reservation: Shall we use gross or net capital formation in our projections?

In compiling the series for capital formation, the usual practice is to state it in two ways. First an estimate is made of gross capital formation which consists of all the goods referred to above. Thereafter an allowance is made in the form of depreciation and other types of capital consumption to arrive at a figure of net capital formation.

For purposes of economic projection it would initially appear that the net figure is more appropriate as the capital that is presumably wasted or consumed does not contribute to future growth.

But in some circumstances the gross figure may be more appropriately used. For example, in our society capital consumption results more often from obsolescence, rather than from a physical deterioration of plant and equipment. The old equipment which is displaced still exists and may be used as a productive factor.

In underdeveloped countries in contrast, capital consumption typically takes the form of sheer physical deterioration of plant and equipment. The old one-horse shay collapses. In such a situation it is evident that net, rather than gross, capital formation would be a more important variable to consider in any economic projection.

I come now to an extremely important point. No. 9. The adequacy of natural resources as they relate to economic projections.

One factor almost always assumed away in economic projections is the state of the natural resources of the country. The United States

for example has been blessed with most of the raw materials needed for an expanding industrial economy. But the Paley Commission and others suggest that we are running short, and perhaps will continue to do so in the future.

This means that we may have to rely more heavily on imports or resort to more difficult resources within our own borders at a higher real cost. This development may mean that we will have to devote more effort to making available the same raw materials for the operation of the economy. Such a development would have a natural slackening effect on our growth. Similar thought should of course be given to the natural resource position currently and prospectively of the nation with which we are being compared.

And I there underscore the emphasis that Dr. Schwartz placed on the tightness and inadequacy of fats and oils, particularly.

Now a favorite bogey of mine, No. 10; the influence of terminal points upon the rate of growth. The common comparison very frequently drawn is to relate the rate of growth for the United States for the past decade with the rate of growth of the U. S. S. R. for the past decade and then to project the rates of growth for each of the two countries for the next decade or next two decades and come to some conclusions. Much of the warrant for those conclusions pivots primarily around the terminal points selected.

In comparing the growth, and particularly the future growth of two countries, attention must be paid to their different economic stages. For example, a comparison of the United States and Russia from 1945 to 1955 involves a comparison of two unlike terminal points. U. S. S. R. in 1945 started from a much lower point because of the physical toll of World War II and hence its rate of growth is biased upward. Similarly, longer-term comparisons must also be qualified. The United States as a full-blown industrial economy has completed the transition from the agricultural base upon which it rested in the early decades of the last century.

The U. S. S. R., on the other hand, is a relatively new industrial power, still resting upon a large agricultural base. Its growth in recent years may have been more rapid than that in the United States, but that situation may be simply a reflection of the stage of its economic development. A more proper comparison might be the rate of growth of the U. S. S. R. currently with that of the United States in the last century, when it represented a stage more comparable to that of the U. S. S. R. currently; Kuznets' historical work reveals an extremely rapid rate of economic growth in the United States a century or so ago. His estimates show that net national product in constant dollars increased 30 percent to 40 percent during the 1870's and 1880's—a rate 2 or 3 times that of the last decade for the United States of America.

I won't comment on my last reservation which deals with price and exchange rates, since I have already taken more than my time.

(The omitted material follows:)

PRICES AND EXCHANGE RATES

Projections have always been stated in terms of fixed prices in order to focus on the real changes that will take place. The assumption of fixed prices removes one of the factors that has acted as a guide to productive activity in the past and may render any projection erroneous. This is especially true if it is assumed that the relative prices of various elements remain the same.

We can expect price changes to continue to take place in the future and consequently influence industrial activity. If so, the projection would be improved if stated in both current and constant dollars.

Furthermore, the comparison of GNP of two economies involves the use of different currencies and consequently the need to convert them to a common monetary unit. It has been demonstrated that current exchange rates cannot do this job effectively because of the many controlled rates. Investigators have generally found that goods and services of one nation are under valued if converted to the currency of another. This phenomenon is a reflection of the different importance placed upon the goods and services by the citizens of the two countries.

Mr. GAINSBRUGH. I would like instead to close with some statements from the foreword we are publishing in our statistical handbook of the U. S. S. R.:

The statistics released for the Soviet Union emphasize the economic growth, its rapid economic growth, in the past decade but they pay little attention to the economic status of their population as compared with the Western World.

The compilations released, for example, show that since 1913 the output of producers' goods has increased by 52 times. Consumer goods by contrast increased by only 10 times.

But even these figures give no indication of the inadequate output of goods in relation to human needs. Our own president substantiates from his personal observations duing a recent visit to U. S. S. R. what many travelers have so frequently reported, namely the emphasis given to heavy industry which has left the bulk of the population of Russia with living standards that are woefully inadequate as compared with what the masses everywhere enjoy, here and in the industrialized nations outside the Russian orbit. The existence of a planned economy and a political dictatorship makes it possible for the Soviet Union to force its development along certain channels. Impressive overall gains have been made, but compulsion and fear still underlie the record of U. S. S. R. growth and the growing pressures for better living among the Russian people and their satellites are raising more and more doubts as to whether such gains can be continued in the years ahead.

Representative BOLLING. Thank you, sir.

Senator Flanders, do you have any questions?

Senator FLANDERS. Yes, I would like to ask some questions. I just want to say that I think this has been one of the best panel discussions we have had, that it has been very informing and very objective.

I would like first to ask Dr. Keezer a question. He projects shorter hours, which has of course a historic basis, well a projected basis, probably supporting the projection. He projects higher hourly wages, also historical as well as prophetical. And he projects higher output per hour, again historical as well as prophetical.

I wonder whether you have taken the occasion to calculate from these three projections a projection from the major labor cost element in the cost of goods?

Dr. KEEZER. In other words you mean whether we have come out with a dollar cost per unit of labor over this period?

Senator FLANDERS. Yes.

Dr. KEEZER. It has not been a part of these projections but I think we can do it.

Senator FLANDERS. Would you have more or less confidence in such a projection than you have in the elements of which it is composed?

Dr. KEEZER. That probably would lead to the question of whether we will continue to have price increases, I take it.

Senator FLANDERS. The next question I wanted to ask of you, sir, was in your projection of higher production, it was based of course on research and development. It has been said by many people at

different times that the great stimulus to research and development is war. Do you have any thoughts as to the effect of an era of peace—although it looks improbable—and a great decrease in the defense expenditures and activity? Have you any thoughts as to whether that would tend to put a stop to research and development applicable to peace use?

Dr. KEEZER. I think we have some very definite evidence on that. As a part of our annual survey of business plans for investment we asked this year for expenditures on research and development, present and prospective, and the figure for 1956 from a very broad sample of American industrial firms was that they are spending $5½ billion this year for research and development. About one-third of that comes initially from the Government, about two-thirds of that comes from industry itself.

That is an increase of approximately 50 percent from 1953 when the Bureau of Labor Statistics made a survey for the National Science Foundation. We have no way to measure how much a cold war may be contributing. But, we have evidence now that a very new and tremendously important element has been added to the American economy in the fact that American industry on its own motion and without regard to war but simply with regard to markets is making a tremendous investment in research and development. And it is increasing this investment sharply. We asked for the figure of estimated expenditures for 1959 and came out with a figure of $6,300 million as the prospective expenditure by American industry for research and development in 1959.

So I think we do have some impressive evidence that this is not geared up to war or emergency, but it is geared up to estimates of how properly to take advantage of market possibilities.

Senator FLANDERS. Thank you.

Now I would like to turn to Dr. Grossman. On page 8 you speak of the diversion of resources to military end use and say that the magnitude of such diversion at present must be enormous.

With any lessening of military tension, is there not the possibility of a diversion of similar magnitude that might result from the increase and the present diversion into the international economic contest? Aren't the possibilities there, for instance the building of steel mills and dams and other things of that sort, as great as is the military expenditure and might we not find in any endeavor on our part to compete in building up the resources and production of the underdeveloped world, might we not find under these conditions of virtual disarmament that diversion so large as to be very difficult for us to meet?

Dr. GROSSMAN. Sir, if I understand you correctly, you are wondering whether a reduction, a very drastic reduction in Soviet armament expenditures might not be diverted to Soviet aid or other programs in the underdeveloped countries; is that correct?

Senator FLANDERS. Yes.

Dr. GROSSMAN. Yes, I think this is a very real possibility but perhaps rather than answering it with one sentence I may say a few words about it.

It is true that the resources liberated, if they should be liberated—and I might add at this point that I for one, this is more a matter of crystal ball gazing than anything else, I for one do not anticipate

in the near future a very drastic cut in Soviet armament expenditures, but this is anybody's guess—but should such a drastic cut take place, and you will undoubtedly agree that such a drastic cut will be a result of developments in the international situation in which we are as much a factor as the Soviets, and to a large extent it is in our hands whether the Soviets will cut their armament expenditures—then I think we may very well witness a sharply stepped-up flow of resources from the Soviet Union into the underdeveloped areas and in part precisely for the reason I mentioned in my statement, namely that these are, these resources are of such a physical nature, namely engineering skill, metals, equipment and so on, which were relatively little, with relatively little conversion could be used for the purpose you indicate.

However it is very difficult for me to foresee a flow of Soviet aid to the underdeveloped countries which would in any way be of comparable order of magnitude to the resources they are now committing to defense.

They are just so huge and any substantial cut is likely to be so huge if realized that it is difficult to see that all these billions and billions of dollars worth, let us say, would be flowing.

But it is an economic leverage, shall we say, that they will undoubtedly attain if they should so liberate some of their resources. I don't know whether I have answered the question.

Senator FLANDERS. I think you have given us as good an answer as can be given. I would like to ask you another question. On page 9 of your manuscript you use the phrase "World economic power." Can you define that term, or will you? I think you can.

Dr. GROSSMAN. I will try for I obviously had something in mind when I wrote it.

I did not have anything very clear in mind. What I had in mind is this though: That it does take of course a certain economic base to support a certain posture, as the phrase these days goes, in the international scene. Now perhaps we tend to think of this economic base sometimes too much in terms of the guns themselves. I feel pretty certain that the figures that weigh in the Soviet calculations is the economic base of a broader nature, the general industrial potential of the country. And any stepping up of the rate of capital formation may permit them to expand their general industrial base, not necessarily the production of guns immediately but the production of machinery and equipment which at some time in the future will be very helpful in producing guns, and also an industrial potential which may with time also be very helpful in attracting politically the uncommitted countries of the world. So that should there be this stepping up of the rate of creation of this industrial base, we may very well find ourselves, say 10 years from now, facing a much more formidable adversary in the general economic sense than we might if this adversary continued to pour large resources into what after all is in the long run unproductive use, namely guns and tanks and so on. This is a general notion of economic power. It is admittedly vague but, I submit, perhaps not entirely irrelevant.

Senator FLANDERS. Thank you. Now I have some questions I would like to ask of Dr. Schwartz.

One of the thoughts that has occurred to me in connection with competition between the Soviet sphere and the free world is this: Can we not present that competition not in terms of tons of steel and barrels of oil but in terms of the living standards of the people?

Shouldn't the contest lie there and should we not emphasize that politically is the contest? I was interested I think it was you or Dr. Grossman perhaps referred to Gomulka's shifting of the direction of economic development to the raising of the standard of living of the people. Isn't that a contest in which we should advertise and which we should gladly enter into?

Dr. SCHWARTZ. I would quite agree with you, Senator Flanders. The fact that I did not present the relevant data does not mean I consider them unimportant. I consider them quite important. However, I think that this point should be made that from a psychological point of view the Russians have been extremely skillful these past several years in using their data on the growth of heavy industry and using their new plants and their impressive equipment which is turned out in these plants to win friends and gain influence among the underdeveloped countries of the world.

I think if one reads the statements of leaders of countries such as India, for example, Indonesia and so on, one finds to one's dismay that many of the leaders of the presently neutral and underdeveloped countries of the world have been swept away by this Soviet mirage, this notion that if a country concentrates upon building steel mills and machinery plants and so on that this is really what is meant by economic development. So in that respect perhaps the recent developments in Poland and Hungary and to a lesser extent in North Vietnam may have the exceedingly salutary influence or effect upon the leaders of these underdeveloped countries of bringing sharply into their attention the fact that the impressive gains in heavy industry have been purchased at very heavy human cost and that it is really questionable whether a country which is relatively underdeveloped such as India, Indonesia, or Burma should follow the Soviet pattern of industrialization.

I quite agree that the tremendous advantage we have in all areas of the standard of living is one of our very strongest points in the world competition for the minds and hearts of men.

Senator FLANDERS. Thank you.

Now I may say that a year ago last summer I attended an Interparliamentary Union meeting at Helsinki to which for the first time was admitted a Soviet delegation. I was very much opposed to the admission of a Soviet delegation because supposedly the principles of the Interparliamentary Union are that that is the nearest to a direct meeting between people and people you can get.

It represents the meeting presumably of government officials who have been selected by the people. So you get a nearer approach to people to people meeting. The Russians did not meet that definition or that term but there they were.

And since they were there, I addressed myself to them and I made the suggestion in my talk that the time might come when the successful exercise of leadership and of power in the Soviet Union might fall into the hands of intelligent leaders who devoted themselves to the well-being of the people and I have since suggested that in some broadcasts over the Voice of America.

I believe the more we can do so to impress the Russian people with the possibilities of their great country in terms of the welfare of the people, the better we can serve the interests not only of the free world but the Russian people themselves. It is a kind of an offensive that hurts nobody except rascals.

Now, with regard to your statistics on iron and steel and end products, does your information suggest that there is a very high percentage of scrap clear through from the blast furnaces and the pig iron through the conversion into steel and the fabricating of the steel and the production of the end products? Is that large enough in your judgment to in any degree vitiate the overall statistics of tons?

Dr. SCHWARTZ. This of course is a matter on which there are no very satisfactory statistics. There are merely fragmentary statements which appear from time to time. And so all I can give is a qualified and very tentative impressionistic kind of answer.

My judgment would be—and this is purely a judgment—that within the Soviet Union industrialization is now so far along and workers are so experienced that the percentage of scrap of metal which is turned out, which is turned out to be waste metal, which I think you have in mind, sir, is probably not so large as to vitiate these comparisons, any comparisons with say the United States or Great Britain. They obviously have some scrap and then so do we.

Senator FLANDERS. Scrap iron is fed back into the cuppola and scrap steel is fed back into the open hearth furnace, so that to that extent, that can escape the statistics.

Dr. SCHWARTZ. Yes. On the other hand there have been indications that Eastern Europe where industrialization of some countries is a more recent phenomenon and the workers are not as well trained that the percentage of spoiled metal is at times significant and that this might perhaps, if we had the adequate data, somewhat reduce the apparent growth rate in iron and steel production.

But overall, I should not think that any correction made for this factor would have any major impact upon these data. It might change things but for a few hundred thousand tons perhaps in the aggregate for all the countries by a million or 2 million tons but I don't think it would change the essential character of the data.

On the Chinese situation I have no information whatsoever but one might suppose from the newness of the industrialization in China that this is an even more serious problem in China probably than it is in Eastern Europe or the Soviet Union.

Senator FLANDERS. You mentioned the great lacks in the Soviet system in feed and grain, textile raw materials, particularly cotton and fats and oils. What has become of the great Danube Valley, the Great Granary of Europe? What has happened to it?

Dr. SCHWARTZ. That is a very fair question, Senator, and I think that the answer by and large is that the institutional pattern which the Communist leaders of Eastern Europe have attempted to impose upon the agriculture of Eastern Europe has been a manmade disaster.

If one reads the Polish press these days and the Polish press these days is being amazingly frank, one learns that the chief characteristic of economic management this past decade in Poland has been that men sent to run a particular field knew nothing about that field. This was particularly true in agriculture. That is one reason.

The second reason is of course that the peasantry of Eastern Europe has by and large been opposed to collectivism. Very frequently where it has been collectivized very heavy coercion has been employed. The peasant's only possible resistance has been a passive resistance. He simply did not do his job as well as he might have. So the really fundamental answer to what has happened to the Great Danube granary is that the ills of Communist management have so deprived peasants of incentive and have so mismanaged agricultural affairs in Eastern Europe that the countries like Rumania, Hungary, and Poland are today countries which badly need imported grain to feed their own people.

Senator FLANDERS. Before the First World War—I can remember this and you can't—there was a typical line of political action by the Austro-Hungarian Government that was known as pig politics. If they wanted to embarrass the Balkans they shut down on the import of pig products including lard and if they wanted to relieve them they let up the bars. There again there is a great field in which the Communist economy does not open up.

Dr. SCHWARTZ. Much the same answer would apply to this, sir. The raising of livestock is of course a very delicate operation which requires not only care but one might say devotion on the part of the farmer.

The farmer needs an incentive in the way of a proper price structure, and so on, and all these things are missing. In addition, of course, we should remember that although it has not been on as large a scale as perhaps in the Soviet Union during the 1930's in part the peasant's answer to the collectivization in Eastern Europe has been to eat up his pig rather than turn it over to the collective farm.

Senator FLANDERS. Now, you spoke about the necessity, I believe it was you, for our maintaining the prosperity of the free world if we ourselves are not to be overtaken by disaster.

In my series of questions, I think a copy was handed to you——

Dr. SCHWARTZ. Yes, sir.

Senator FLANDERS. No. 7. What possible assistance can we render the Western European countries as great as they can gain for themselves by forming a customs union? That would give them a mass market comparable in its possibilities to our own. Can we do anything better for Western Europe than to encourage what they can do for themselves?

Dr. SCHWARTZ. I take it that this question is intended as a long-range question because obviously in the immediate situation Western Europe very badly needs American oil, but that is an immediate situation.

Senator FLANDERS. Yes, I am speaking of that as long range.

Dr. SCHWARTZ. I do not have particular knowledge about Western Europe. But so far as I have general knowledge, I would agree with the implication of your question that the formation of a customs union so Western Europe would be a unified market would be a tremendous step forward for the benefit of all of Western Europe.

The difficulty lies there in the many vested special economic units in each of these countries of Western Europe which feel that their own special narrow interest would be damaged if faced with competition from other nations.

This is a similar problem to that which we had in the United States for some time.

Senator FLANDERS. May I mention my experience at a conference I attended? I asked this question and asked it after 2 or 3 speakers had developed that the European customs union was a fine idea but, but, but—and I called the attention of the conference to the fact that these but, but, but, buts were exactly the arguments that American business used with reference to lowering the tariff barriers of the United States. And one other question I asked, the answers intrigued me. I said now it is proposed that there shall be a customs union of European countries, is the United States to be admitted into that too or is the United States to be shut out?

Well, that question wasn't directly answered but I could see in the rest of the American delegation an attempt to rather shush me down. What was evidently the situation was that the administration, the economic administrative policy of the administration to date looks simply to the extension of the free-trade area by means of the reciprocal trade treaties and most-favored-nation clause and in the minds of the administration people present this was just simply another approach to the reciprocal trade treaties and most-favored-nation clause.

Everybody, if the United States is to get in on the European customs union, everybody should be allowed to get in and then it loses its specific advantages as I see it for the people of Europe.

Now, I will try to proceed rapidly, more rapidly here. You mentioned the compulsion in production due to the planned economy and their ability to do with their citizens whatsoever they will. And that gives them certain material advantages as compared with the necessities of our free enterprise system.

These questions of mine, Mr. Chairman, are directed among other things toward a matter I ask here in—you would think I had not written this and I was hunting for something but I assure you that I did write it with a lead pencil on a legal size yellow pad with lines on it.

Oh, yes, in six, is there in our underemployed population a resource comparable to underdeveloped natural resources in other countries? It is a labor resource not a material resource. Can we apply knowledge, wisdom, and intelligence to the expansion of this home market if business slows down abroad?

As you know, Mr. Chairman, I have been in strong support of two low-income-group studies that we have had. I have had in mind possibilities for that which have not yet materialized.

I think we have found some of it—at least I personally have found from these hearings some things that I did not know. One is that the great mass of the stubborn low income is to be found in agricultural regions. It is not to be found in cities, even in the slums of cities, there is nothing comparable to the persistent low-income situation in the low-grade agricultural areas of the country.

Now, feeling as I do and as I set forth in these questions that we are liable to run into difficulties in dependence on foreign trade for our industrial activity I raised the question which I just read.

Is there in our underemployed population a resource comparable to underdeveloped natural resources in other countries?

And the thought has been raising itself in my mind as to whether, let us say, in the unlikely event, the unlikely but necessary event of some period of a more or less stable peace, in which we are permitted

to divert a large part of our regular resources from the present wasteful diversion to arms and armament, whether some of a considerable measure of the resources diverted cannot be applied to enormous—because we are talking about tens of billions—to enormous developments of public works, of which one example would not merely be the highways which we have recently embarked upon but also for instance such a widespread provision of sewage disposal that one can take a cup and take a drink of water safely out of any river or stream in the United States. That would take billions.

But would there not be an opportunity there to draw in—that is just one example—to draw in these low-income groups not by picking them up in the dead of night and putting them into freight cars and sending them somewhere but offering them opportunities that they have never had before. And it seems to me that a massive approach to this low-income group problem may become possible, and I hope the members of the committee at least will keep that in mind.

Mr. Gainsbrugh, on page 8 of his paper, on page 8, the fifth and sixth lines, speaking about the productive activity, "The projection would be improved if stated in both current and constant dollars." I have more than once and again within the past fortnight tried to persuade the committee of which I am a senior member to put into its monthly report of economic indicators a gross national product in constant dollars as well as in current dollars and I am very hopeful that my third attempt to get this done will result in its inclusion in the January issue and I submit that for the staff.

I think that is all.

Representative BOLLING. Thank you, Senator Flanders.

At this time I would like to call on the panel as a whole as individuals if they have further comments on comments of other panelists.

Dr. FABRICANT. Mr. Chairman, I would like to note the importance of Senator Flanders' remarks about the standard of living in the Western Countries as compared with the standard of living in those others on the other side of the Iron Curtain, and his further remarks about wage costs and about the low-income distribution. I think it is extremely important that we keep in mind that our economic system prospers the way it does because it draws into the productive process all the energies and efforts of all our people, and by distributing to all our people the product of their efforts in a more or less automatic way. Not only have we increased our standard of living in the United States, but we have improved the distribution of income in the United States in a way I think that could not be matched by countries on the other side of the Iron Curtain.

I think we ought to publicize the fact that, not only a higher standard of living but a better distribution of that standard of living among our people is one of the results of our economic progress.

Senator FLANDERS. Dr. Fabricant, Professor Fabricant, I would like to suggest that if you can get hold of a copy of a little book I published last May entitled "Letter to a Generation" and will read chapter 3, you will see the title of the chapter is "Be Assured." I tried to describe our whole economic system in such a way that the young people would have confidence in it and it would please me very much if you would ask your bookseller for a copy of the book because the principal customer to date has been myself and I am very grateful to anyone who spends his own money for it.

Dr. KEEZER. Mr. Chairman, I would like to make one remark. I think I share all the reservations of this group about the technical and substantive difficulty of projections. I think you have never heard more modest statements about projections in a long time than those made here. But having presented these projections in the first instance, I think I would like to just add that I don't know how you get along without some kind of projections. You are continually making comparisons, you are continually trying to figure out where you are going and where somebody else is going and where you are both going relatively.

If you concentrate solely on the limitations of projections, nothing every happens. With all these limitations we must have projections. We can only make them as best we can.

Mr. GAINSBRUGH. Dexter said you make the projections as good as you can. We would all say that is laudable. But I think we also ought to keep examining them continually from the point of view of, are they good enough?

How can they be improved? What has been the limitations and the reservations of past efforts? Are we building too many models of a similar type? Are we concentrating too much on one type of approach? Are there other approaches that can be employed? I don't think there is any dissent within the panel on the desirability of model building. I think our dissent is primarily upon techniques that are employed. And our emphasis was upon recognizing the limitations of the techniques that are currently employed, with the hope that as we do more of these we perhaps can do better ones—in a sense, learn by doing.

Dr. KEEZER. My point is that there is no dissent in the panel. That is the beauty of it.

Mr. GAINSBRUGH. I am inclined to put a qualification on that. I think too many of these projections are presented as being the best that can be made. I doubt that they are. They are the best that can be made with the resources that are now being committed to this particular problem. But are we putting in enough resources? Do we have enough men at work on this particular job? If it is as important as Dexter says it is from the point of view of business planning and from the point of view of public policy, is this an adequate flow of resources?

Are we continuing to be constantly niggardly about our allocation of resources for this particular purpose? My own feeling is that we have not recognized the significant overtones surrounding these particular projects and that we limit the capacity of the science and the fraternity to perform by our very niggardly ways.

Representative BOLLING. Of course, you know very well as chairman of a subcommittee of this committee, on statistics, we have been working one aspect of that problem and I tend to share the view that the Congress was a little niggardly on occasion. With regard to certain things that might be useful in this particular field, that is.

Dr. SCHWARTZ. May I make two brief observations, one on Senator Flanders' point regarding the low-income population of the United States. I think he has a tremendously important point there. But I think we have to be aware that it is not simply a matter of economics. A very large fraction of these low-income people are Negroes, mainly, Mexicans, and other nonwhites who sometimes tend to be, at least in

practice, if not legally, in the position of second-class citizens. This has very undesirable effects which go far beyond merely the economic sphere. I think this country stands to gain enormously from any effort made to give these underprivileged peoples, and particularly those who suffer from color or similar barriers, the education they need to utilize their native ability to the highest advantage and also the opportunity to become members of our economy and our society on a full-fledged basis. If we were to do that, we would deprive the Communists of one of their most effective political and propaganda arguments: the thesis that the colored person in our society is a second-class citizen subject constantly to the fear of discrimination, bodily harm, lynching. This is terribly important.

The second point I would like to make is with reference to Martin Gainsbrugh's very important qualification regarding the assumption of raw material plentitude. That is, I have been appalled sometimes looking at some projections, not Dr. Keezer's but others which go out to the year 2,000 and seem to give everybody a Cadillac. In making such projections, nobody seems to look at the question, Do we have enough iron or do we have enough coal, do we have enough aluminum? We have tended to assume too freely in the past that natural resources are there and can be had more or less easily. Actually the United States is now in the transition from a have to a have-not nation.

I think we have before our eyes today a tremendously instructive and to some extent frightening example of what happens when you become dependent upon an imported raw material which may be cut off from you. I am referring, of course, to the case of Western Europe and its need for oil from the Middle East. I don't think this is a matter on which I or anybody else has any easy solutions but it would seem to me to be a prime function of the United States Government in these days to do some very careful looking ahead on the raw-material needs of the American economy and the possible resources, domestic and foreign, for meeting these needs. We need to insure that our children and grandchildren have the same access to raw materials that we have had.

On that point, one disturbing factor we know when one looks at the competition between the Communist and non-Communist world is the fact that the most industrialized portions of the Western World, that is the United States and Western Europe, are relatively far along in the depletion of their raw materials. England, for example, once built its economy on coal. Today coal is brought to Newcastle in defiance of the ancient adage.

We built our economy on cheap iron ore and today we are having to bring it in from Labrador, Venezuela, and Liberia and other places. The Communist countries, particularly the Soviet Union and Communist China, are still in very infant stages of depletion of their raw materials. If one looks ahead 10, 20, 30, and 40 years from now they are likely to be in a much better position in terms of raw materials available from domestic sources than we are. This raises some very grave problems which I think the planners of our Nation's future must stay and take into serious account.

Representative BOLLING. One aspect of which my area is involved is the very simple fact one of the limitations of our future growth is the limited availability of something as ordinary as water.

Dr. SCHWARTZ. That is right.

Representative BOLLING. Dr. Grossman?

Dr. GROSSMAN. Mr. Chairman, I have been very interested in all the statements made today but particularly in the statement made by Dr. Schwartz; his remarks were after all addressed to the same part of the world or about the same part of the world that my statement referred to. And I must say that he did an admirable job in the very brief time he had at his disposal. I was particularly interested to hear him make a couple of remarks: one that a major battle ground in this contest is the United States domestic economy itself, that by maintaining full and productive employment, we can go far in winning this contest. I can only applaud these remarks. Incidentally what Dr. Schwartz just said about the problem of second-class citizenship and its bearing on the propaganda contest that we are facing I think is very true too.

But to proceed to another point which I was also very interested to hear, namely the possibility that the most recent events in Eastern Europe such as happened in Poland and Hungary might gravely affect the allocation of resources as between consumer, investment and so on.

I think he is quite right in proffering this possibility, namely that in the Eastern European countries, the pent up privations have come to the point where even the Communist regimes will not be able to ignore the need of the people for a better standard of living. Certainly what has been happening in Poland greatly underscores that.

However, I would like to draw a distinction here between the Eastern European satellites and the Soviet Union. Not that in the Soviet Union the standard of living is so high that the problem does not exist. Certainly it does.

We have heard a few words said on that this morning and I will be the last one to claim otherwise.

However, it seems to me that the political situation is such that we must differentiate between the prospects there and the prospects in Eastern Europe.

For one, it seems to me the Soviet leaders probably have their population better in hand than did the puppet regimes in Eastern Europe until the recent outbreak; and secondly of course the element of nationalism which was so important in Hungary and in Poland has a completely different complexion in the Soviet Union. But still I think Dr. Schwartz is completely right that a reallocation of resources away from military end use even in the Soviet Union is very likely to be in some part in the direction of improving standards of living.

However, I would like to enter this very brief qualification or several qualifications.

One, the physical pattern of the production plant and of the resources is such that it will be much easier for the Soviet planners to shift the resources now going to military use into investment, into foreign economic assistance and perhaps a few other uses than to benefit the consumer immediately and directly.

Secondly, the institutional structure of the Soviet economy is such that even if they tried hard, within the same institutional structure, to do much for the consumer, they would find as they perhaps did

under Mr. Malenkov's previous tenure, very serious internal resistances.

The machine just isn't geared to provide butter and shoes as well as it is geared to provide guns and machine tools.

It is true that the institutions can be changed and if they are changed, from our point of view, so much the better, but in the very near term I am not sure that this is a very likely prospect.

And then finally it seems to me that the very devolopments in Eastern Europe, call them Titoism or call them what you wish, may engender the reverse reaction in the Soviet Union.

Now that the satellites are going their own way from the point of view of the Kremlin may it not be that the reaction of the Kremlin within its own territory would be even further to strengthen what it considers to be the basis of economic power, namely heavy industry.

In other words if you can no longer depend on Polish heavy industry and on the Polish armies in the case of a showdown, is it not likely that it will be the Soviet heavy industry that will have to be strengthened from the point of view of the Soviet rulers. So if there are actual resources to be reallocated such as in the event of a major disarmament which as I said before I do not see in the cards at the moment, if there are such resources to be reallocated I am not too sure for the reasons I have just listed that they will by and large go to the consumer.

My guess would be that they would go into further investment, by and large, and, as Senator Flanders indicated in his question, very possibly for aid to the underdeveloped countries. In both instances, of course, perhaps not entirely to our comfort.

Dr. SCHWARTZ. May I comment briefly on Dr. Grossman's remarks, Mr. Chairman. I certainly agree with Dr. Grossman in his evaluation of what the Soviet leaders would like to do. The really interesting question—we don't have any answer but it is interesting and we have to be aware of it, whether in the new atmosphere and the Soviet leaders have as much freedom of action internally as Mr. Stalin had 5 years ago.

To me it is very interesting, within 6 months of Stalin's death Mr. Malenkov, who was then Premier of the Soviet Union, felt it necessary to announce a policy which promised the Soviet people a sharp upsurge in the standard of living of the Soviet people within 2 or 3 years. He is a politician operating in a different framework than our politicians operate but the characteristics of a politician is that he is sensitive to public pressures.

It seems to me there is a tremendous pressure in Soviet Union for an increased standard of living and that factor the Soviet leaders have to take into account.

The really interesting field for speculation is what line the Chinese Communist leaders will draw from the events of Eastern Europe. If you extend your time horizon to 30 or 40 years, the really frightening thing about the Communist growth is possibility of Communist China with its vast human resources and its not inconsiderable natural resources becoming a major economic power.

Now, the possibility arises and there are no guaranties that the Communist Chinese leaders will look at the events in Eastern Europe and perhaps—I stress "perhaps"—decide that they themselves don't wish to risk disturbances similar to those in Hungary, certainly, and

that they may terefore recast their plans for extremely rapid economic growth.

I don't know. But this is a very interesting possibility and I would hope, I would expect that this committee might interrogate Dr. Eckstein, who is going to testify on China here on Wednesday, I believe on the potential effect upon Chinese economic growth from the political lines to be drawn from the recent turmoil in Eastern Europe.

Representative BOLLING. Thank you.

Are there further comments? If not, gentlemen, I want to thank you very much and say for myself and for Senator Flanders this has been the most interesting and stimulating panel that I have had the opportunity to listen to.

We are very grateful to you for giving to us and others your time and your wisdom.

Have you a further question?

Senator FLANDERS. No.

Representatives BOLLING. With that the subcommitee will stand adjourned until 10 o'clock on Wednesday, when it will meet in this same room on the subject, Economic Growth Trends in Underdeveloped Areas.

(Whereupon, at 12:35 p. m., the subcommittee adjourned, to reconvene at 10 a. m., Wednesday, December 12, 1956.)

WORLD ECONOMIC GROWTH AND COMPETITION

WEDNESDAY, DECEMBER 12, 1956

CONGRESS OF THE UNITED STATES,
SUBCOMMITTE ON FOREIGN ECONOMIC POLICY,
JOINT ECONOMIC COMMITTEE,
Washington, D. C.

The subcommittee met, pursuant to adjournment, at 10: 10 a. m., in room 1301, New House Office Building, Washington, D. C., Hon. Richard Bolling presiding.

Present: Senator Ralph E. Flanders.

Also present: Charles S. Sheldon II, staff economist; Grover W. Ensley, executive director; and James W. Knowles, staff economist.

Representative BOLLING. The subcommittee will be in order.

Last Monday when these hearings were opened, I explained their rationale and objectives. In that connection we heard from a panel of nationally known experts on the general problems of making international comparisons and economic growth projections. Attention was concentrated primarily on the relative development of the great industrial nations with emphasis on the United States and the Soviet Union. Today we are continuing our inquiries by examining particularly the problems of the underdeveloped nations.

Many of these countries are not yet fully committed either in their political alinements or to any single course toward economic development, but they do share some common desires at least among the influential members of their societies. They want to better their material well-being in order to raise living standards but they may also want to industrialize even at some cost to current comfort in the interest of long-run greater bargaining power in the world scene.

The economic resources of the great nations which have already industrialized may be available to influence the course of development and trading relations in these underdeveloped regions. Because so much of the world has yet to experience extensive development and conditions vary widely, we have had of necessity to limit our discussions primarily to a single region. This morning we are going to hear mostly about Asia and the Far East.

We are concerned with the different paths to development open to these countries. We are also concerned about the trade implications for the United States and for these countries themselves.

Before proceeding to the witnesses, I understand that Senator Flanders would like to make a statement.

Senator FLANDERS. I would like to have distributed to the members of the panel, Mr. Chairman, my memorandum of November 14 to Dr. Ensley in which I asked for a reexamination of our trade policy.

I may say that this memorandum was sent to Dr. Hauge and Dr. Burns who doubtless passed it down to Dr. Saulnier and doubtless to Sherman Adams. I believe we need to take a new look at our whole trade policy and the agenda of this particular series of three hearings only touches on these questions in spots. With your sufferance, Mr. Chairman, I will raise them as we go over the spots.

I was interested to find the administration was not going to be represented and I heard it rumored that it is because they were making a new examination of our trade policy. I hope that that rumor is a true one.

Thank you.

Representative BOLLING. Senator, I believe that each of the witnesses today was furnished a copy of your memorandum by mail and I think that each one of them now has one before him.

Our first speaker this morning is Dr. Henry G. Aubrey who is currently the director of a major research project still in its early stages at the National Planning Association.

It is most appropriate that he be here today for that project is in the same context as some of our interests. It is called the economics of competitive coexistence.

Dr. Aubrey was engaged in foreign-trade business for many years, and also since 1950 has been a visiting professor of the graduate faculty of the New School for Social Research. He has been a consultant to the United Nations, Pakistan, and the Organization of American States. Until coming to the NPA, he was on the economic staff of the Federal Reserve Bank of New York. He is the author and coauthor of several books. His topic this morning will set the scene for what is to follow. It is the Meaning and Importance of Economic Development in World Affairs.

Dr. Aubrey, you may proceed as you wish.

STATEMENT OF HENRY G. AUBREY, DIRECTOR OF RESEARCH ON THE ECONOMICS OF COMPETITIVE COEXISTENCE, NATIONAL PLANNING ASSOCIATION

Dr. AUBREY. Mr. Chairman and members of the committee, economic growth of course is nothing new in history. Why is it then that the economic development of the less advanced areas of the world has recently become the subject of such intense preoccupation in world affairs?

And why, in particular, has an active interest in this development become a touchstone of the international performance of an industrial country?

I propose to confine my brief remarks to this question, in order to focus on economic development abroad as an important consideration in the formulation of foreign economic policy.

In the past, the process of economic growth was much more generally taken for granted than now. Over the last two centuries, since the so-called industrial revolution in Europe, economic growth had been left to proceed at its own pace, rapid at some times in certain countries, more slowly in other periods and places. In our time, the less developed countries will not wait; they want their economic revolution now, and they expect its fruits within 2 generations rather than 2 centuries.

The reasons for this radical change of temper and rhythm are, I submit, partly economic, partly psychological-political.

Historically, in the heyday of western economic growth, population increased only slowly and the needs of growing numbers did not call for an accelerated schedule of progress. Today, by contrast, most underdeveloped countries are already densely settled and their population is increasing at unprecedented rates. It takes therefore more rapid growth just to keep up with growing needs. Even faster growth is necessary to raise the generally depressed standard of living. This, then, is an economic reason for making haste deliberately.

While it is increasingly difficult to provide for growing numbers, vast masses of people have become aware of the better things of life and are demanding a greater share. Quite naturally, most governments could not remain passive in the light of such social and political pressures. They feel compelled to act instead of waiting for growth to come about in its own good time.

Thus, as gradual growth is replaced by accelerated development "under forced draft," the role of Government is being transformed in the process: if changes have to be brought about quickly, the Government tends to take on functions of assistance, promotion, or even operation which a more leisurely course of events would not seem to call for. This trend has taken distinct forms in Communist-controlled countries and in free nations. In the former all initiative and activity is centrally controlled, while in the latter important functions are reserved to free enterprise, notwithstanding a measure of programing or planning.

It may be well to recall that a tendency toward broader Government functions is not by any means unprecedented even in the more advanced free-enterprise economies. In times of stress most countries, including our own, have assigned far-reaching functions to Government. Moreover, historically, most free-enterprise economies in the Western World have, at one time or another, relied on State intervention to a much greater extent than is often realized. Nonetheless, such periods of increased Government activity have been followed in due course by more—not less—private initiative after the preconditions for faster growth had been created.

Hence, the prevalance of Government activities in early stages of economic development need not necessarily be taken as prima facie evidence of socialistic tendencies. The need to marshal scarce resources, to coordinate scattered efforts, and to formulate a judicious path of development makes measures of planning unavoidable. It is eminently desirable to distinguish between this need and the overall direction of enterprise which characterizes a Socialist economy.

In fact, the creation of planning institutions that are compatible with democratic concepts offers the best prospects for the new countries to develop a stable alternative to the lure of totalitarian centralism.

By the same token, it would be harmful to allow the Communists to monopolize the idea of premeditated economic development, for they are already trying very hard to be identified with the cause of industrialization in the minds of the people in retarded areas.

In this respect, the Communists have shown themselves well attuned to one of the strongest emotional drives in large areas of the world today—the desire for economic and social betterment.

85589—57——5

This drive, in fact, has linked up with a second and perhaps even more powerful urge—the desire for independence and equal status in international affairs. To be free in a formal sense is no longer enough for those who have already acquired political independence. To be economically dependent upon powerful industrial nations is resented in some instances by underdeveloped countries almost as deeply as the political aspects of colonialism.

Diversification of the economy and, especially, industrialization are seen as a means to reduce this dependence. The urge towards economic development is thus grounded in some of the most dynamic aspirations at large in the world. Hence, we should not be surprised by the near-religious fervor with which it is supported in areas where many people believe, rightly or wrongly, that they have been denied an equality of opportunity in the past by bad fortune or perhaps even intentionally.

No wonder, then, that a country's attitude towards economic development has come to be regarded in underdeveloped countries as a touchstone of its identification with their needs and aspirations. The advanced industrial nations, already under a cloud on account of their accumulated wealth, are alternatively suspected of neglect and of ulterior motives. Russia by contrast postures as a newcomer who pulled himself up by his own bootstraps and who is therefore capable of the best disinterested advice. No matter how historically false the claim and how frightful the cost of the prescription—the example looks attractive to many.

The degree of identification with the development goals of the underdeveloped countries has thus become an outstanding issue in international politics. Moreover, much more than sympathy and interest is expected from the industrial nations. Economic development requires resources which are scarce in underdeveloped areas—financial, technical, managerial, and administrative. These countries are therefore looking to those more advanced for trade and assistance in many guises. However, since such dynamic aspirations are involved, decisions to give or withhold cooperation symbolize much more than the material contribution in question.

The crucial ingredient is an evidence of identification with what these people want most—a better life, greater economic security and independence, and a respected place in the family of nations.

To cooperate or to deny—down to the last detail of negotiation and implementation—the issue is loaded with the emotional impact of those strong desires.

Thus political implications of truly explosive potency have been superimposed on economic issues. When it comes to discussing policies and programs, it may be well to bear in mind that they involve the international manifestations of the most fundamental human aspirations in the world today.

Representative BOLLING. Thank you, Dr. Aubrey.

Our second speaker today is Dr. Alexander Eckstein, of the department of economics at Harvard University. After service in the United States Army in World War II, he was with the FAO of the United Nations and then had a fellowship in Geneva. While in the Department of State, he was a senior economist on far-eastern problems. An important reason for inviting him here today was his recent coauthorship of a book entitled "Prospects for Communist

China." This morning his topic is Red Chinese Development and Prospects.

Dr. Eckstein?

STATEMENT OF ALEXANDER ECKSTEIN, DEPARTMENT OF ECONOMICS, HARVARD UNIVERSITY

Dr. ECKSTEIN. Mr. Chairman, in trying to think through how I might serve the purpose of the committee best, it seemed to me worth while to concentrate on a few major aspects of Chinese Communist economic development, rather than attempt to give a comprehensive and fully integrated analysis of the economic-growth process in Communist China. With this in mind, I would like to address myself briefly to the following five questions:

1. How has mainland China's economy fared since Communist takeover in the fields of agricultural and industrial production?
2. How does this performance compare with that of India and the Soviet Union?
3. Does growth in production seem to be matched by parallel trends in consumption?
4. What effect is Chinese Communist agricultural policy likely to have upon farm output and the character of economic growth?
5. What role does Soviet economic assistance play in Chinese Communist economic development?

In an attempt to answer the first two questions, I assembled the data presented in appendix tables A, B, and C. In these tables you will find output and rail freight turnover data for the principal industrial and agricultural commodities produced in China, India, and the Soviet Union.

In the case of India and China, these refer to developments during recent years and targets for the second 5-year plans.

The Soviet statistics, however, relate to the prewar period and are designed to place the rates of Chinese and Indian expansion against the background of Soviet plan performance from 1928 to 1937.

Proceeding on the basis of the physical output and freight volume data, I then calculated the average annual rate of increase in production and freight volume for China, India, and the Soviet Union.

The results of these computations are presented in table I of the statement that is before you.

One of the things that all of these data indicate is that China's mainland economy seems to have been expanding very rapidly, both during the period of rehabilitation following Communist takeover (1949–52) and since the inauguration of the first 5-year plan.

As one might expect, production grew much faster in the investment-goods industries than in consumer-goods manufacture or in agriculture. However, even in these fields, this appears to have been a period of marked growth.

One of the questions that naturally arises in this connection is, How reliable are the statistics on which these conclusions are based?

In this respect, the situation facing an economist analyzing developments in Communist China is much more complex and difficult than that confronting the Soviet specialist.

In the absence of a central authority capable of exercising full and effective control over all provinces of mainland China, and owing to

a host of other reasons too detailed to be considered here, pre-Communist Chinese statistics were grossly inadequate, and even considerably below the standards of other underdeveloped areas.

What, in effect, has happened is that, while in the last statistical organization and collection was poor, statistical findings were more or less freely reported.

TABLE I.—*Average annual rate of growth in production of selected industrial and farm products in China, India, and the U. S. S. R.*

[In percent]

Commodity	1st 5-year plan period			2d 5-year plan period		
	China [1]	India [2]	U. S. S. R.[3]	China [4]	India [5]	U. S. S. R.[6]
Coal	13.8	2.6	16.1	12.1	10.3	14.7
Pig iron	24.1		17.1			18.5
Crude steel	28.4	[7] 3.4	8.2	21.5	[7] 27.0	24.6
Crude oil	30.4		16.5	22.3		5.9
Cement	16.3	12.2	17.1	16.7	15.8	9.4
Electric power	19.1	[8] 8.1	28.2	21.2	[8] 14.9	21.8
Paper	16.6	9.6	13.5	18.8	14.2	12.0
Cotton yarn	3.1	6.3		11.2	4.0	
Cotton cloth	5.0	6.9	.15	8.6		5.1
Sugar	18.1	9.1	−10.4		6.2	23.9
Food grains	3.9	3.8	−1.1	6.4	2.9	11.4
Rail freight volume	17.7		16.0			16.0

[1] These rates based on first 3 years of the Chinese 5-year plan running from Jan. 1, 1953, to Dec. 31, 1957
[2] Based on the full 5 years of the plan that ran from Apr. 1, 1951, to Mar. 31, 1956.
[3] Based on rates of growth during the 1928–32 period.
[4] Based on projected rates of growth for 1958–62.
[5] Planned rate of growth for 1956–57 to 1960–61.
[6] Actual rate of growth during 1932–37 period.
[7] Finished steel.
[8] Electric power capacity.

Source: Computed from data in appendix tables.

Dr. ECKSTEIN. Now, however, we are faced with greatly improved standards of data collection accompanied by systematic attempts at statistical camouflage.

However, one may detect a noticeable improvement in the quality of Chinese Communist statistics since late 1952. Paradoxically many of the inconsistencies in Chinese Communist statistics are a byproduct of this change in the quality of data; as a rule, statistics published since 1953 are based on a broader coverage and are methodologically more consistent and sounder.

All of this, of course, raises the old problem of the credibility of data published by the Chinese Communists. Are these outright falsifications? It seems to me that this does not seem too likely since the very requirements of internal administration, planning and rational accounting (whatever the criteria of rationality may be), are such that a system of double bookkeeping—1 for propaganda and 1 for economic accounting—would be bound to lead to profound confusion among plant managers, party cadres, and bureaucrats in charge of economic organs.

Thus it is not so much sins of commission as rather those of omission with which the investigator has to contend. He is contantly plagued by conceptual obscurantism, by methodological vagueness, and by a proneness to make exaggerated claims for increases in production or other accomplishments that at times may reflect improvements in statistical coverage and reliability rather than real advances.

These difficulties and statistical pitfalls, however, apply more to magnitudes expressed in money terms where the basis and method of valuation is uncertain than to the type of physical output and volume figures used here.

With these notes of caution in mind, China's performance during its first 5-year plan seems to be more impressive when compared with that of India and the U. S. S. R. than when viewed independently.

Thus, in respect to every category—except cotton textiles—China outdistanced India, at least in terms of rates of growth, and in most cases in terms of absolute levels as well. It is particularly noteworthy that this statement applies even to agriculture, that is to that branch of the economy to which the Indians allotted 33 percent of their public investment resources, as compared to about 7 percent by the Chinese during 1953–55.

At the same time, the rates of industrial growth in China seem to compare quite favorably with Soviet rates based on the 1928 to 1932 period.

However, these comparative relationships may be rapidly changing during the second 5-year plan, with India placing much greater emphasis upon industrial development to the point that in some fields India may be pushing ahead faster than Communist China.

Yet, comparisons based on increases in production alone may be grossly misleading. What about changes in the levels of consumption? Unfortunately the data for assessing the latter are much less satisfactory, particularly for China, so that in this field systematic comparison is not possible.

However, on the basis of the information that is available it would seem that in this respect comparisons may be more favorable to India than to China.

In part this is a matter of deliberate choice and thus reflects two quite different approaches to planning, with the consumer looming much larger in India than in China.

Numerous examples could be cited to illustrate these differences. If I may, let me allude just to one, i. e., the different pattern of railroad utilization in India as compared to China.

In India, about 40 percent of rail transport volume is devoted to passenger traffic, while in China—with freedom of movement controlled and closely circumscribed—it is negligible.

In contrast, the Chinese utilize their rail system for movement of freight to the limit of its capacity. This naturally means that while Indian rail transport does better by the consumer, the Chinese by concentrating on freight movement can make their limited transport capacity go further in serving the purposes of increasing production and commercialization.

These different rates of growth in production versus consumption inevitably raise the question as to what are the appropriate criteria for assessing economic progress in different countries. Obviously from the standpoint of military and war-waging potential, the rate of industrial growth is of prime importance.

From an economic welfare point of view the rate of growth in per capita personal consumption may be the most meaningful criterion.

In terms of political appeal, rising standards of living and dramatic industrialization programs, accompanied by an aggressive power posture, may compete with each other.

Therefore the outcome of an India-China comparison may yield different results depending upon which of these or other possible performance criteria are applied.

I would like to turn to a different set of questions now, namely what effect may Chinese Communist agricultural policy—most particularly land and collectivization policy—have upon farm output and the character of economic growth?

From an economic point of view, collectivization can be viewed as a means for forcing a high level of saving upon agriculture, or to put it another way, it is a mechanism for transferring resources out of agriculture without compensation.

In the Soviet case, this policy was carried to the point that one can legitimately speak of a pattern of industrialization which took place at the expense of agriculture in several respects; that is, in terms of farm output and farm consumption levels.

Agriculture was kept on a comparatively short investment ration while rates of extraction from agriculture were so high that they consistently undermined farmer incentives, even in the collectives.

Yet, it is probable that in spite of these unfavorable factors Soviet farm output would have risen appreciably if not for the two major setbacks incurred by violent collectivization and the devastation of World War II.

This has important implications for assessing economic prospects in mainland China. Mao and his colleagues in adopting the Soviet model of economic growth, embarked upon a collectivization campaign as soon as their plans for a 5-year plan began to crystalize.

However they were apparently determined to learn from the Russian experience and do everything in their power to avoid the violence and the negative consequences of Soviet collectivization, reflected in wholesale slaughter of livestock and radical curtailment of farm output between 1928 and 1932.

Therefore, the Chinese adopted a policy of what may be termed "high-pressure gradualism." This involved a relentless pursuit of the collectivization objective, but based on a series of transitional forms—each successive form involving a greater degree of farm cooperation—and using the weapons of persuasion, propaganda, economic pressure, and economic incentives. In effect, it entailed the use of carrot and stick techniques in judicious combinations.

As a result, according to Chinese Communist pronouncements, 62 percent of farm households were collectivized by May 1956. According to all of the available evidence and contrary to the expectation of most observers, this was and is being carried through without large-scale organized peasant resistance.

There seem to be tensions and excesses here and there, but there is no evidence of mass violence, of livestock slaughter, and of disruption of output.

Unless the situation changes, this may have far-reaching implications for the future course of China's economic development.

It could mean, that unlike the Soviets, the Chinese Communists may be able to have their cake and eat it too. That is they may be in a position to pursue their industrialization objectives and concurrently attain at least modest increases in farm output.

In such a case, the Chinese Communists would be in a position to relax their pressure on agriculture and on the consumer sector in general.

This in turn could mean that other things being equal, the Chinese could place greater reliance upon incentives, even in agriculture, than the Soviets were able to do.

Finally let me turn to the issue of Soviet aid which obviously has an important bearing upon the rate at which the Chinese Communist economy will grow.

May I say that my remarks on this problem are based on a rather detailed study of Sino-Soviet economic relations which I have recently completed for the Council on Foreign Relations.

It should also be added that this is a most complex problem and one on which our information is more incomplete than perhaps on any other aspect of the Chinese Communist economy.

It would obviously be beyond the scope of your present inquiry to go into all these complexities.

I will therefore confine myself to reporting the conclusions of my study with the understanding that the supporting evidence and analysis are pulled together there.

Given Mao's "lean-to-one-side" policy and free world strategic trade controls, Communist China has become almost exclusively dependent upon the Soviet Union for her imports of capital goods and technical skills.

However on the basis of all of the available evidence, the preponderant bulk of these imports seem to be paid for with Chinese exports. Sino-Soviet economic relations have been largely governed by two successive agreements.

The first of these, concluded in 1950, provided for a line of credit equivalent to US$300 million to be extended over a period of 5 years.

The second, negotiated upon expiration of the first at the end of 1954, was much more vague, apparently providing a new loan of 520 million rubles or US$130 million at the official rate of exchange. If this new line of credit was to be extended again for 5 years, the annual proceeds of the loan would not even quite cover the annual payments or repayments due on the first loan. This in combination with (*a*) the Chinese claim that their trade is essentially in balance, and (*b*) other bits of scattered evidence, would strongly suggest that Soviet economic grants-in-aid or loans to Communist China may have been negligible in the last 2 years, the bulk of assistance being confined to military deliveries.

This conclusion would seem to be belied by widely publicized expressions of gratitude for the Soviet aid rendered.

However, in the Chinese Communist vocabulary all imports from the Soviet Union are viewed as aid, and this is quite explicitly stated.

This of course does not mean that the economic ties between China and the Soviet Union are not very intimate or essential from the standpoint of Chinese economic growth.

It only indicates that Communist China's economic link to the Soviet Union is primarily based on trade rather than aid in our sense of the term. This trade naturally carries with it, more or less automatically, a great deal of technical assistance.

Thus on the basis of Sino-Soviet agreements, 156 of the key capital projects inaugurated by Communist China during its first 5-year plan are to be designed, equipped, and installed by the Soviets.

These are projects which the Chinese could never carry through on their own at their present stage of development. But they are projects which are not apparently financed by Soviet grants or loans, but are paid for with Chinese exports.

(The appendix tables previously referred to follow:)

APPENDIX TABLE A.—*Selected economic-growth indicators, Communist China, 1949–55, and targets for 1957 and 1962*

I. INDUSTRIAL PRODUCTION[1]

	Previous peak		1949	1952	1955	1957 plan	1962 plan
	Year	Production					
Coal	1942	61,875	30,984	63,528	93,604	112,985	190,000–210,000
Pig iron	1943	1,801	246	1,900	3,630	4,674	
Steel	1943	923	158	1,349	2,853	4,120	10,500– 12,000
Crude oil	1943	320	122	436	966	2,012	5,000– 6,000
Cement	1942	2,293	661	2,861	4,503	6,000	12,500– 14,500
Electric power	1941	5,955	4,308	7,261	12,278	15,900	40,000– 43,000
Cotton yarn	1933	2,447	1,803	3,618	3,968	5,000	8,000– 9,000
Cotton cloth[2]	1936	45,008	30,178	89,273	103,220	(163,721)	(235,000–260,000)
Sugar[3]	1936	(414)		249	410	686	(2,400– 2,500)
Flour				2,990		4,670	
Paper	1943	165	108	372	589	655	1,500– 1,600
Cigarettes	1947	2,363	1,600	2,650	3,567	4,700	

II. AGRICULTURAL PRODUCTION (IN 1,000 METRIC TONS)

	1949	1952	1953	1954	1955	1957 plan	1962 plan
Food crops[4]	113,181	163,913	166,832	169,512	183,933	192,810	262,500
Rice	48,645	68,426	71,272	70,851	78,024	81,770	
Wheat	13,808	18,123	18,281	23,332	22,965	23,725	

III. RAIL FREIGHT VOLUME

	1950	1952	1955	1957 plan
Actual (billion ton-kilometers)	39.4	60.2	98.1	120.9
Index (1952=100)	65.4	100.0	163.1	201.0

[1] Units: Coal, pig iron, steel, crude oil, cement, sugar, flour, and paper in metric tons; electric power output in millions of kilowatt-hours; cotton yarn in 1,000 bales; cotton cloth in 1,000 bolts; cigarettes in 1,000 cartons.

[2] Figures in parentheses include handicraft production using machine-spun yarn.

[3] Figures in parentheses include sugar produced by nonmechanized methods.

[4] Including soybean.

I. INDUSTRIAL PRODUCTION

	Index (previous peak year=100)		Index (1952=100)		
	1949	1952	1955	1957 plan	1962 plan
Coal	50.1	102.7	147.3	178	315
Pig iron	13.6	105.5	191.1	246	
Steel	17.2	146.1	211.5	306	834
Crude oil	38.1	136.3	221.8	462	1,261
Cement	28.8	124.8	157.4	210	472
Electric power	72.3	121.9	169.1	219	572
Cotton yarn	73.7	147.8	109.7	138	235
Cotton cloth	67.1	198.3	115.6	(147)	(222)
Sugar		(108.9)	164.7	276	(543)
Flour				156	
Paper	65.5	225.3	158.4	176	417
Cigarettes	67.7	112.1	134.6	177	

II. AGRICULTURAL PRODUCTION

	Index (1952=100)					
	1949	1953	1954	1955	1957 plan	1962 plan
Food crops	69.0	101.8	103.4	112.2	117.6	160.1
Rice	71.1	104.2	103.5	114.0	119.5	----
Wheat	76.2	100.9	128.7	126.7	130.9	----

Sources: 1. State Statistics Bureau of the People's Republic of China, Report on the Fulfilment of the State Plan in 1955. Statistical abstracts of this document contained in Hsin Hua Pan-yueh-kan (New China Biweekly), No. 17, Sept. 6, 1956.
2. Eighth National Congress of the Chinese Communist Party, Recommendations on the Second 5-Year Plan (1958-62) Jen Min Jih Pao (People's Daily), Peking, Sept. 29, 1956.

APPENDIX TABLE B.—*Selected economic growth indicators, U. S. S. R., 1913–37*

Production	Unit	1913	1928	1932	1937	Index (1913=100)		
						1928	1932	1937
Coal	Million tons	29.1	35.5	64.4	128.0	122.0	221.3	439.9
Pig iron	do	4.2	3.3	6.2	14.5	78.6	147.6	345.2
Steel	do	4.2	4.3	5.9	17.7	102.4	140.5	421.4
Cement	do	1.78	1.85	3.48	5.45	103.9	195.5	306.2
Crude oil	do	10.3	11.6	21.4	28.5	112.6	207.8	276.7
Electric power	Billion kilowatt hours	2.0	5.0	13.5	36.2	250.2	675.0	1,810.0
Cotton cloth	Million meters	2,672	2,678	2,694	3,448	100.2	100.8	129.0
Sugar	Thousand tons	1,358	1,283	828	2,421	94.5	61.0	178.3
Paper	do	269	284	471	832	105.6	175.1	309.3
Grain	Million tons	80.1	73.1	69.9	120.0	91.3	87.3	150.0
Rail-freight volume	Billion ton-kilometers	76.4	93.4	169.3	354.8	122.3	221.6	464.4

Sources: Central Statistics Office, Narodnoe Khozaistvo S. S. S. R., Statisticheskii Sbornik, Moscow, 1956. State Plan Commission, Third 5-Year Plan, Moscow, 1939. Naum Jasny, The Socialized Agriculture of the U. S. S. R., Stanford University Press, 1949.

APPENDIX TABLE C.—*Selected economic growth indicators, India, 1950–51 to 1955–56, and targets for 1960–61*

Production	Unit	1950–51	1955–56	1960–61	Index (1950–51=100)	
					1955–56	1960–61
Coal	Million tons	32.3	36.8	60.0	113.9	185.8
Finished steel	do	1.1	1.3	4.3	118.2	390.9
Cement	do	2.7	4.8	10.0	177.8	370.4
Electricity (installed capacity)	Million kilowatts	2.3	3.4	6.8	147.8	295.7
Cotton yarn	Million pounds	1,179	1,600	1,950	135.7	165.4
Mill cloth	Million yards	3,718	5,200	----	139.9	----
Sugar	Million tons	1.1	1.7	2.3	154.5	209.1
Paper	Thousand tons	114	180	350	157.9	307.0
Foodgrains	Million tons	[1] 54.0	65.0	75.0	120.4	138.9
Cereals	do	[1] 46.0	55.0	----	119.6	----

[1] Relates to the year 1949–50.

Source: Government of India, Planning Commission, Second 5-Year Plan—A Draft Outline, February 1956.

Representative BOLLING. Thank you, sir.

Our next speaker is well known not only to this committee but also to the Nation. I will not recite his illustrious career in full this morning in the judiciary, the Army, the United States Senate and in diplomacy. Senator John Sherman Cooper has had a rare opportunity to observe at first hand the problems of India as our Ambassador.

As most of you know, he has just returned from a flying trip back to that country. Having just considered Red Chinese development, we

are now privileged to have Senator Cooper contrast for us The Development Effort of India.

Senator Cooper, you may proceed as you wish, sir.

STATEMENT OF HON. JOHN SHERMAN COOPER, UNITED STATES SENATOR FROM THE STATE OF KENTUCKY

Senator COOPER. Congressman Bolling and members of the committee: I thank you for this opportunity to testify briefly before you. I might say that only yesterday I returned from India and I have not had the time to prepare a statement, so I will speak without a prepared statement. I am certain a great many of the things that I am going to say are known to the committee and they represent more a statement of aims and of progress in India rather than of the philosophical ideas which lie behind the efforts that India is making toward development.

I would say that I do not believe that in our country there is a wide impression of the problems which India faces in its development and of the real progress that it is making and as I see it, the importance of that progress to the democratic world.

I think we should always remember that India is the second largest country in the world in point of population with over 380 million people, and that it is the sixth largest in land area. I believe myself from my experience in India that it is because of these facts and so many other factors that India is the actual leader of the countries in that area of the world.

Some of the difficulties which India faces in its industrial development can be very easily pointed up when we realize that its gross national product amounts to about $22 billion, that its average per capita income is approximately $55 and that only 5 to 10 percent of the people of India earn over $300 per year.

Those facts point up the difficulty of securing funds for investment which are necessary for development.

As you know, India has just completed its first 5-year plan, and in March of this year began its second 5-year plan. Its first 5-year plan called for an investment, both public and private, of $7½ billion.

Four and a half billion dollars by what is called the public sector, that is by funds furnished by the Government, both the central Government, or the center as they call it, and the States, and $3 billion by private industry.

Not all of that money was actually spent, but I think perhaps 90 percent of it was actually put into development

The second plan calls for an investment of about twice that amount, approximately $14.9 billion.

Four billion nine hundred million will come from the private sector, that is through private investment, and $10 billion will be invested from funds secured by the center and by the state governments.

I know the question arises—and it arose in my case—as to why these sums should be fixed as the sums for investment either in the first plan or the second plan.

First, I think that the first plan was a natural extension of the problems which India faced at the coming of its independence.

The British had formed in India some kind of an industrial economy. For example, there was a railway system embracing about

34,000 miles. I think it is the third largest in the world and that system, as with many railway systems at the end of the war, had greatly deteriorated and needed rehabilitation.

Second, there were great imbalances in the kind of administration that England had given India and despite this industrial development, the food and clothing needs and educational needs and many social needs of the Indian people had not been taken into full account.

So the purposes of the first plan might be stated to have been directed toward raising the living standards of the Indian people as quickly as they could be. And that meant an emphasis upon agriculture.

That meant, too, attention to the use of fertilizer, to irrigation, and to bringing land back into production.

I think it can be said that their first 5-year plan had quite a measure of success. It raised agricultural production by about 12 million tons of food, an increase of about 20 percent. It raised their cotton production, I think, about double, for clothing. The national income went up by about 18 percent, that is the gross national product; and industrial income in all of its different phases went up about 50 percent.

The second plan in a way, then, became an extension of the first plan. The progress which had been begun during the first plan called for additional expenditures in the second plan. For example, in the first plan multipurpose projects had been initiated in the field of hydroelectric power and there were others which called for increased and continued expenditures.

But in the second plan a new emphasis was given to industrial expansion. There was indicated the need for steel, the need for cement, the need for machine tools. Those things which would build industry and also the tools which would permit the building of other tools which would in turn generate industry in India and produce capital goods.

And yet I think it is important to note that unlike what is generally thought about China, there has not been placed in India the tremendous emphasis upon complete industrial expansion. A great part of (the procedures which are to be developed from) all their resources during the second 5-year plan again go to agriculture to provide food for their people, and for clothing and for social purposes.

It is estimated that the second 5-year plan can raise the gross national product of India by 25 percent and that it can supply employment for the new labor force of about 8 million people.

No one knows exactly how many people are employed in India or what part of employment is in terms of part time, but it is estimated that this second 5-year plan—if it can build industry—can provide jobs to take care of the 8 million who will become employable.

It is also projected that these gains will permit an increase in per capita income from about $55 a year to $66 a year. The gross national product, as I have just said, will increase from $22 billion to $28 billion a year, about 25 percent. And in individual consumption from 12 to 20 percent.

The second 5-year plan provides for public investment of $10 billion and private investment of $4.8 billion. The problems which are inherent in the plan I think can be stated briefly. The first problem is that of financing. The Indian Government assumed it would be able to provide for the financing of half the public sector, that is $5

billion in taxes and borrowing; and that means increased taxes and increased borrowing.

It calls for deficit financing of about $2½ billion. And there is needed foreign exchange of $2.3 billion. The Indian Government believed that it could secure about $200 million in new investment; that from different sources of grants or loans, not taking into account the United States, it could secure around $300 million; that it would draw down something like $400 million of its sterling resources, all totaling roughly a billion dollars and that there would be left a gap of something like a billion three hundred million dollars which is unaccounted for.

While Colombo powers make available a very reasonable amount of aid in different forms not only to the Indian Government but to other governments who are members of the Colombo powers, the two biggest sources left are the Soviet Union and the United States. I think the committee has been acquainted with the efforts that the U. S. S. R. has been making particularly in that part of the world.

The committee now knows that the Soviet Union has agreed to fabricate and build a steel plant in India amounting in cost to about $100 million.

That is, it has agreed to sell India about a million tons of steel. Recently it has made available to India a credit of something over a hundred million dollars.

I don't need to emphasize at great length the political implications of India's plan but I do want to mention it. India, I would think, is the one country in that area other than Japan which has an integrated plan for development. It has a good economic background. It has good economic resources. It has an able, if small, corps of administrators. It is attempting to carry out this development, it is carrying out this development, by democratic methods, by voluntary and cooperative methods.

I would not expect that either India or China would say that they are in competition with each other, but nevertheless a fact is a fact.

They are in competition. And the Indian people have been aroused as to the possibilities of development and the benefits that can flow from development.

If India should fail to achieve its aims, I think there will be a large measure of disappointment in India and there will also be questions raised throughout the whole area as to whether democratic methods of development are efficient and can meet the need of these newly independent countries.

So there are large political problems involved.

I testified at some length before the Foreign Relations Committees and the Appropriations Committees of House and Senate early this year. I myself believe that our aid programs, while they are good and while they have given great help, yet fail to be as effective as they can be in relation to the underdeveloped countries for at least three reasons.

One is the lack of assurance of continuity. We know the constitutional problem which the Congress faces, but these countries must operate under long-range plans for development, particularly if they are developing large scale projects which involve large expenditures of money. But they cannot rely, of course, upon the assurance of congressional action each year. It means that our aid

tends to be used in fringe projects, most of which are not the great wealth generating projects.

Second, even though we are able to furnish money each year to these countries which represents foreign exchange, there isn't any real assurance that that money can be used to buy capital goods in the United States. We know the problem of price has one bearing upon it. But that is not the only factor involved. There is such a tremendous demand for our own product that we are not able to assure the delivery of capital goods to these countries.

I believe this example is significant. India needed the assurance of 6 million tons of steel. It was able to get the assurance of 1 million tons of steel from Russia, 300,000 tons from Poland, the usual deliveries from Great Britain, but as far as I know, they could not get the assurance of a single ton of steel from the United States. There are many factors involved in that. I know those factors. I am not now trying to argue the different reasons which constitute that difficulty. But what I am trying to say is that no matter how much money we furnish in aid, unless we are able in some way—and it must, of course, be through voluntary and cooperative methods—to see to it that some of our great production is available upon assured terms to these underdeveloped countries when that second problem presents itself.

The third problem is one of training. These people are tremendously interested of course in being able to run their own country, to be economically independent, and this demands training.

Our point 4 programs are valuable, but they do not furnish exactly the kind of training that I think is necessary. What is required is the skilled working man or the engineer who will give training in the actual operation and running of the factories and industries that are built.

I might say that with respect to all three of these points, continuity, the assurance of capital goods and the training, the Soviet Union has developed its plan to meet these points.

We have not.

I know they can do it by fear, by order; we can't. But it seems to me that in a country like ours which prides itself, and rightfully so, upon its ability to produce, that in some way—if we are to be effective with our aid to these underdeveloped countries—we have to develop some method of cooperation with industry, if we are going to furnish money and make available some assurance of supply of capital goods and training.

I suppose my time is exhausted, and I will not continue longer, except to say that although I wasn't in India very long, about 15 months altogether, yet I came away with the conviction that the Indian Government was making a great and tremendous effort to develop, and that what it does, whether it intends it or whether we intend it, will have a tremendous impact upon democratic progress in Asia. If India is able to succeed in its development plan, I think it will give impetus to democratic processes in Asia, and I don't think we can fail to take that into account.

We may disagree with policies. We may disagree upon many matters, as we do, but as I see it the important thing is that 10, 15, or 20 years from now India and these other countries emerge as stable, successful democratic countries. That will perhaps be more important

to us in the long run, too, than whether we agree on every matter of policy that presents itself year after year.

Just now this problem of foreign exchange is very urgent for India. It has been heightened by the Suez Canal problem, and by rising costs and some inflation in India and it is a very, very urgent problem.

What the Congress does about it certainly is a matter for the Congress to consider carefully, and I find myself now to be a Member and I will have to be thinking about it myself.

This has been very general, but I wanted to give you these general ideas.

Representative BOLLING. Thank you very much, sir.

Our next speaker is Prof. Jerome B. Cohen of the City College, New York. Dr. Cohen, after service with the Navy in World War II, was for a period in the Department of State and went on a special mission to Japan. His writings on the economic problems of Japan have established him in his profession as this country's leading authority on that subject. Our two previous speakers have given us sketches of the two approaches to economic development.

Japan faced the problems of economic development in an earlier period, and we have asked Dr. Cohen both to contrast the Japanese approach to the problem of development and also to discuss the Japanese economic outlook.

Mr. Cohen, you may proceed as you please.

STATEMENT OF JEROME B. COHEN, PROFESSOR OF ECONOMICS, BERNARD M. BARUCH SCHOOL OF BUSINESS AND PUBLIC ADMINISTRATION, THE CITY COLLEGE, NEW YORK

Dr. COHEN. Mr. Chairman and members of the committee, I find my statement of 37 pages is considerably longer than I can cover in 15 minutes, so let me sample here and there.

In one sense I am here on the wrong day. Your outline puts Japan under the heading of underdeveloped countries. It is far from that.

Over the past century it has undergone an amazing transition in both agriculture and industry so that today it is the leading industrial nation in Asia and it has in agriculture achieved those gains in productivity, which the underdeveloped countries of Asia seek, at present, to attain.

Japanese rice yields per acre, for example, are among the highest in the world. I would suggest that in your printed volume if you have one, you interpose Japan between the industrially developed countries of the west and the less developed ones of Asia.

It may be well to begin by considering Japan in its present Asian setting. Since you are concerned with industrial development will you please turn to page 5 in my statement.

If experts had been assembled a hundred years ago and had been asked to forecast which country in Asia would be the most industrialized a century later, the country they would have been least likely to have chosen was Japan. The Japan of the 1850's was a barren, backward country, largely shut off from the rest of the world for more than two centuries.

Lacking in resources, the 35 million people eked a scanty and precarious living from the seemingly unhospitable soil. So great was

the pressure of population on the land at that time that infanticide was widely practiced by parents too poor to feed another mouth.

Governed by an idle, unproductive, and unimaginative horde of local lords and retainers, the country was torn with dissension and lacked political stability or constructive central government. Yet a century later in this country an economic miracle had come to pass.

A vast economic transformation had made Japan the leading industrial country in Asia. In manufacturing capacity, only Japan and India have significant plant, in all of free Asia.

The region produces only 5 percent of the world's crude steel, 10 percent of cement output, and has 20 percent of world cotton spinning capacity. Japan produces 9.6 million tons of crude steel, 4.3 percent of the world total. India 1.7 million tons. Japan produces 10.6 million metric tons of cement annually, 5.8 percent of the world total. India produces 4.5 million tons. Japan produces 42 million metric tons of coal, 3 percent of the world total, India 37 million tons.

In cotton textile output, however, India exceeds Japan. India has 11.4 million cotton spinning spindles, Japan has 8.1 million, which is 8.6 percent of world capacity.

Japanese output is a major share of the total industrial output of the whole ECAFE region. Japan produces 49 percent of the total coal output of the ECAFE area, 22 percent of the iron ore, 61 percent of the cement, 69 percent of the electric power generated, 66 percent of the steel produced, 35 percent of the output of cotton yarn, and 34 percent of the production of cotton fabrics. By what means and processes Japan transformed herself into the leading industrial country of Asia is a complicated story told so well elsewhere that it need not be detailed here.

I would refer you to the magnificent volume by Prof. William W. Lockwood of Princeton called "The Economic Development of Japan, 1868–1938, which in some 600 pages details this story.

From the depths of defeat, destruction and despair, Japan has, in one short decade, staged an amazing recovery. With one exception, all major economic indices had, by 1956, exceeded prewar peaks. The exception was trade, more especially exports. Manufacturing and mining output, which fell to 30 percent of the prewar level in 1946 had by 1951 exceeded it and by 1956 was twice as high.

The increase in electric power generation has been even greater with output now 3 times the prewar level. Even in the fields of agriculture, forestry and fishery, where the growth of output is usually slow, all except sericulture, surpassed the prewar level in 1950 and by 1956 were 30 percent above prewar levels.

Real national income which was reduced to less than 60 percen , of the prewar figure in 1946 roughly recovered this level by 1950 and had by 1956 surpassed it by 50 percent. Real income per capita rose 40 percent between 1950 and 1955 and by the end of 1955 was 14 percent above prewar.

The average annual rate of growth for mining and manufacturing production during the 10 postwar years has been 22 percent as against about 9 percent in prewar days. The rate of economic growth in terms of real national income has averaged more than 11 percent a year as compared to 3–5 percent prewar. From the outbreak of the Korean war to 1955, real national income rose 50 percent, nonagricultural production by 101 percent, and employment by 14 percent.

Since 1950 Japan has had a more rapid industrial expansion than any other major manufacturing country, even greater than the remarkable recovery in West Germany's industrial output.

Less of the expanded Japanese output was funneled into exports, however, than in the case of West Germany. Between 1950 and 1956 real exports (deflated to 1953 United States dollars) increased by 11 percent for the United Kingdom, 34 percent for the United States, 93 percent for Japan, and 157 percent for West Germany.

The failure of Japanese exports to expand as rapidly as West Germany's may be attributed to three factors: (*a*) The vast inflation which gripped Japan during most of the postwar decade; (*b*) The consequent fact that it was more profitable to sell at home than abroad; and (*c*) production costs in Japan in many lines, particularly heavy goods and chemicals, which were higher than competitors abroad.

All of these factors tended to price Japanese exports out of world markets from time to time. Exports were the one major economic series which failed to recover prewar levels by the end of 1955, when they stood at 75.4 percent of the prewar figure.

The remainder of this section of my statement goes on to discuss the factors that were responsible for Japanese recovery but I won't discuss those here.

Page 16, People and Food. The population of Japan reached 90,017,000 on July 1, 1956, making Japan third among nations in population density. Only the Netherlands and Belgium are more thickly populated. Figures compiled in 1780 and 1846 indicate that the Japanese population remained comparatively stable at about 26 million for more than a century preceding the Meiji restoration in 1868.

The natural increase in population which multiplied the Japanese population by more than 3 times and brought it to the 90-million mark is therefore a development of the past century. In Japan, as in the case of Europe, the increase in population accompanied the growth of modern industry.

Japan's growth has made the problem of overpopulation even more acute than in the past.

In 1935 each hectare (a hectare is a unit of area in the metric system equal to 2.45 acres) or 2½ acres of arable land, had to feed 14 persons. Today the same land area must feed 18 persons. Only 1 acre in each 6 is cultivable. For each square mile of farmland, Japan has more than 12 times as many people to feed as the United States has.

Now some 10 following pages of the paper point out that to live, to bring in the food that this enormous population needs to consume, to secure the industrial raw materials which are necessary for the industrial growth of Japan, Japan is greatly dependent upon overseas markets. Japan is lacking in almost all the basic raw materials and resources a modern industrial nation would expect to have and consequently this problem of earning enough exchange by exports to bring in an essential and necessary and basic volume of imports is the crux of Japan's problem and the paper then proceeds to discuss the trade problem which is the basic economic problem of Japan.

I want to touch on two aspects of that problem and, if you wish on a third, if there is time.

First is trade with the United States. I am on page 26 of my statement now.

In commercial trade with the United States, Japan has incurred large deficits in the postwar period. In contrast, in the prewar period, Japan was able to balance its trade with the United States, principally by sales of raw silk and shipping services.

Over the 1930–34 period, Japan's raw silk exports to the United States averaged 515,000 bales annually. Currently United States silk imports are but a fraction of the prewar figure. In much of the prewar period, a triangular type of trade developed whereby Japan bought raw cotton in the United States and sold finished textiles to other areas (chiefly Asian countries) which in turn sold various raw materials to the United States. Thus, although Japan showed a deficit in its trade with the United States, its exports to the rest of the world yielded the dollars, through conversion, with which to pay the United States. But the currency convertibility upon which such multilateral trade rested in the prewar period has now largely vanished.

Furthermore, the new independent countries of Asia, by exchange control, reserve their dollar earnings for themselves. The large Indonesian balances ($210 million) owed Japan, for example, are not only not convertible, they seem to be largely uncollectible.

The large deficits in trade with the United States in the postwar period could not have been incurred, had it not been for abnormal United States dollar outlays for aid, special procurement and so forth. Having been warned that United States special procurement outlays were to be tapered gradually, the Japanese have been attempting to narrow the gap in their trade with the United States, both by shifting to other import sources and at the same time increasing and diversifying exports to the United States.

In 1955 this policy met with considerable success, though in good part due to two nontrade factors: the large increase in rice production in Japan and the sale of United States foodstuffs under surplus-disposal terms for yen rather than for dollars.

Compared to a dollar trade gap of $514 million in 1951 and of $469 million in 1954, the 1955 figure was narrowed to $103 million. Japanese exports to the United States rose 81 percent in 1955 over 1954.

Japanese imports in 1955 from the United States were 21 percent lower than in 1954. Although the export expansion seemed large percentagewise, total Japanese exports to the United States amounted to only 3.8 percent of United States imports, a much smaller share than Japan's prewar proportion.

Indeed percentagewise Japan is not an important factor, at present, in United States foreign trade, taking but 4.7 percent of United States exports and providing 3.8 percent of total United States imports.

On the other hand the United States is a dominant factor in Japanese foreign trade, supplying 31 percent of Japanese imports and taking 22 percent of Japan's exports (in 1955).

Yet percentages like averages, often conceal more than they reveal. Japan is the best single customer for United States cotton, wheat, rice, and soybeans, and in the absence of convertibility and in the face of diminishing receipts of United States special funds, cannot be expected to maintain its large purchases from us, unless allowed to sell to us.

85589—57——6

There was in 1955 a clear shift to sterling area and other sources of supply and this trend can be expected to continue slowly if we do not close our markets to Japanese products, more rapidly if domestic protectionist interests make their demands prevail in Congress.

In 1955 Japan bought $120 million of raw cotton from the United States. It sold the United States $30 million of cotton textiles. Japan took 647,000 bales of raw cotton, 26 percent of the total exported. United States imports of cotton textiles from Japan in 1955 amounted to 1.5 percent of total United States cotton textile production.

Now may I comment on the trade of Japan and southeast Asia, which, in a way, is directed to Senator Flanders, since it is a point which he raised in his memorandum.

In 1934–36 the countries of south and southeast Asia took 19 percent of Japan's total exports. In 1954 they absorbed 32 percent and in 1955, 28 percent. The area provided 17 percent of Japan's total imports in 1934–36, while in 1954 it supplied 19 percent and in 1955, 21 percent.

These figures indicate that although some gain in trade with the area has been achieved, the frequently voiced hope that the area would prove the main factor in improving Japan's trade position has hardly been realized. Neither as an absorber of exports nor as a provider of imports, has the area measured up to optimistic expectations. There are a number of reasons for this. In the first place, the purchasing power of the area is low; per capita incomes, while rising in recent years, are meager, even by Japanese standards. In due course development programs presently underway will increase purchasing power but this is likely to be a long, slow process, with inflation and population increases absorbing some of the gains.

Secondly the Japanese have had to face stiff competition in export sales to the area, especially from West Germany and Great Britain. Particularly in capital goods and equipment they have been undersold by the Germans, in fertilizer and rayon by the Italians, and in some categories of cotton textiles, by India.

The reparations problem is a third factor which has hindered trade development to a degree.

A fourth and very important restrictive factor is the multiplicity of trade and exchange controls, quotas, lack of convertibility, newly imposed tariffs designed to protect infant industries, etc., which face the Japanese in south and southeast Asia.

Since Japan is not a member of any trading bloc or currency area, but is very much on its own in international trade, these restrictions are a greater barrier than might otherwise be the case.

Indonesia is a case in point. Exports to Indonesia fell from $123 million in 1954 to $68 million in 1955 (although imports rose slightly, from 62 to 67 million dollars). Indonesia's inability to pay either in goods or in foreign exchange caused Japan to reduce its exports.

Factors tending to stimulate Japan's trade with south and southeast Asian countries are: National development programs which tend to increase demand for imported capital goods and equipment, and raise output of goods available for export.

For example, in the case of India, Japan's exports rose from $37 million in 1954 to $66 million in 1955 (imports from $32 million to $46 million).

Other factors include United States dollar aid, such as ICA expenditures in Vietnam, which are used to buy supplies and equipment in

Japan; and Japanese investment in south and southeast Asia. The latter is developing at a slow pace but there are encouraging examples. I cite a few in my statement.

In developing greater trade and investment ties with south and southeast Asia, the Japanese must pursue a wary course. There is still a good deal of suspicion and ill will and bitterness toward the Japanese in much of the area. If they appear to be pushing too much or going ahead too fast, fear of domination will develop and further barriers will rise.

If on the other hand they fail to be resourceful, energetic and quick to seize or develop a prospectively good economic opportunity, the Chinese or Germans or Indians or British can be expected to move rapidly and the Japanese national interest will suffer.

There is a complementarity between the resources of the southern regions, as the Japanese perceived even before World War II, and Japanese industrial capacity, but if the Japanese are too obvious in exploiting it for their own ends, they will develop a hostile reaction. There is growing evidence that they realize that their posture must be one of mutual benefit and mutual assistance.

There follows a section on Japan and the Communist bloc in its economic relations, but I find I have utilized my time.

Representative BOLLING. Thank you.

(Dr. Cohen's prepared statement follows:)

TESTIMONY OF JEROME B. COHEN, PROFESSOR OF ECONOMICS, BERNARD M. BARUCH SCHOOL OF BUSINESS AND PUBLIC ADMINISTRATION, COLLEGE OF THE CITY OF NEW YORK

JAPAN'S ECONOMIC PROBLEMS AND OUTLOOK

Mr. Chairman and members of the committee, in one sense I am here on the wrong day. Your outline puts Japan under the heading of "Underdeveloped Countries." It is far from that. Over the past century it has undergone an amazing transition in both agriculture and industry so that today it is the leading industrial nation in Asia and it has, in agriculture, achieved those gains in productivity, which the underdeveloped countries of Asia seek, at present, to attain. Japanese rice yields per acre are among the highest in the world. I would suggest that in your printed volume you interpose Japan between the industrially developed countries of the West and the less developed ones of Asia.

It may be well to begin by considering Japan in its present Asian setting.

Asia, Japan and the West

Free Asia may be defined as the vast arc of countries stretching from Afghanistan around to South Korea, including Pakistan, India, Nepal, Ceylon, Burma, Thailand, Malaya, Cambodia, Laos, Vietnam (South), Indonesia, Philippines, Formosa, and Japan. Theses 16 countries (including, also, Hong Kong and Singapore) contain 785 million people, or 30 percent of the total world population, and 45 percent of the population of the free world.

If the concept of Asia is broadened to include Communist China, there are then approximately 1,368 million people in Asia, 53 percent of the population of the entire world. Of the world's 7 most populous countries, 5 are wholly in Asia—China (583 million), India (377 million), Japan (90 million), Indonesia (81 million), and Pakistan (80 million).

Asia's population is increasing, at a rate of perhaps as much as a million a month, so that the absolute additions each year are very high. Asia is not, however, as many people think, ahead in the population race. It is gradually losing especially to the Western Hemisphere. In 1850 the population of the world outside Asia was only half of Asia's. Today it is almost equal.[1]

---

[1] See The Development of Asia, background material prepared by the staff of the International Bank for Reconstruction and Development for the Monetary Conference of the American Bankers Association and Columbia University, at Arden House, March 17–19, 1954.

In the light of the overriding power struggle of our times, it is interesting to note that the population of free Asia (785 million), largely neutralist and in the main, uncommitted, is almost as large as that of the Soviet bloc (899 million).[2] If free Asia were to succumb to Communist ideology 65 percent of the world population, or almost two-thirds, would be overwhelmingly hostile to the West.

The combined income of the peoples of free Asia is only about $60 billion, just a 20th of the world total—30 percent of total world population, only 5 percent total income. The gross national product of the entire world is estimated at $990 billion. Of this, the United States accounts for over $400 billion, producing more than 40 percent of the world's goods and services with only 6 percent of the world's population. Free Asia, with five times as many people as the United States, produces only one-sixth of United States output. Japan, with 3.4 percent of world population, produces two-tenths of 1 percent of total output of goods and services.

The economic importance of free Asia

That this region should lag so greatly in output is paradoxical for it is rich in resources. Rice, of course, is its chief food product, with output exceeding 100 million metric tons. This is 87 percent of rice output in the free world and over 60 percent of total world rice production. Communist China is the only other major rice producer, accounting for about 28 percent of the world output. Japan is dependent upon south and southeast Asia for two-thirds of its rice imports.

Rubber leads the list of nonfood agricultural products of the area. It dominates the exports of Indonesia and Malaya and accounts for a major part of the foreign earnings of Ceylon, Cambodia, Vietnam, Thailand, and British Borneo. About 94 percent of the world's natural rubber is produced in south and southeast Asia. It is estimated that world rubber output exceeds 1.8 million tons while production of synthetic rubber is about 750,000 tons. Japan obtains all of its rubber from south and southeast Asia.

Except for cotton, free Asia encompasses the world's main sources of agricultural and animal fibers. The area contributes 92 percent of the free world's supply of abaca (Philippines), 95 percent of its jute (India and Pakistan), 54 percent of its wool (if Australia and New Zealand are added to the area), and 60 percent of its kapok (Indonesia). It is the major source of the world's raw silk (Japan and China) and also accounts for 15 percent of the free world's cotton output (India and Pakistan). Japan imports most of its wool, flax, hemp, and jute from the area.

The region's output of mineral fuels and electric power in comparison with world output is very small (1.7 percent of crude oil, 3 percent of coal output, and 6 percent electric power generation). The Asian region's coal reserves are roughly estimated at 150 billion tons. Free world reserves are about 3,700 billion tons, of which 2,500 billion are in the United States. Japan is totally deficient in high-grade coking coal, essential for steelmaking. Ordinary Japanese coal reserves are estimated at 18 billion tons, adequate but not abundant.

Petroleum production comes mainly from the East Indian Archipelago. Proved oil reserves in Indonesia and North Borneo are estimated at 2.5 million barrels, somewhat less than 2 percent of the world's known reserves. Japan's crude oil output supplies less than 10 percent of her domestic requirements and known reserves are very scanty.

Free Asia has 6 percent of the world's total iron ore output but resources are unevenly distributed in the region. India has 80 to 90 percent of the region's reserves. As a result of vast new discoveries, the total high-grade iron ore reserve of India is now estimated at 20 billion tons, compared to 6 billion for the United States. Japan obtains three-fourths of its total iron ore imports from the area. Her own reserves are very scanty and of low grade. It is estimated that Japan must import 2.2 million tons of iron ore annually to maintain industry at a level needed for 90 million people.

The region is well endowed in tungsten, manganese, and titanium, moderately in chromite and molybdenum, and poorly in other ferroalloy metals. The region is a prominent world producer (20 percent of the free world total) and exporter of tungsten ores, the main sources being Korea, Thailand (and Australia). The area supplies 41 percent of free world output of manganese. India is the world's leading producer of manganese ore and also the region's largest producer of ilmenite (titanium ore), supplying 28 percent of free world total. The Philip-

[2] Including Communist China's 583 million but excluding Yugoslavia's 17 million.

pines is one of the largest producers of chromite in the world, providing 13 percent of free world total. In the case of Japan, among the minerals necessary for ferroalloys, only chromite can be supplied in the desirable minimum amounts.

In nonferrous metals the area has 72 percent of free world tin reserves. Malaya has been the world's largest producer of tin ore, while Indonesia is next in importance, followed by Thailand and Burma. Japan imports all its tin ingot from the area. In contrast to tin, on the other hand, the region produces little copper, lead, and zinc. If Australia is included, output is 7, 19, and 15 percent, respectively, of free world totals. Japan has adequate supplies of zinc, substantial but inadequate deposits of copper, and is deficient in lead. No one deposits for the making of aluminum are available in Japan. She is insufficiently supplied with nickel, antimony, cobalt, phosphate, nitrate, magnesite, platinum, potash, and salt.[3]

The region is the world's most important producer of graphite and mica. India has, for many years, been the world's largest producer of black mica. In recent years radioactive minerals have been discovered in the region. The biggest known deposits of thorium are along the Malabar Coast, Travancore, India. Monazite reserves in India have been estimated at well over 2 million tons. Uranium-bearing ores have also been discovered in India while important uranium resources have been located in Australia. As yet no radioactive minerals appear to have been discovered in japan.

As a result of the region's abundance of resources (except Japan), about 35 percent of United States imports of critical and strategic materials come from free Asia. The area supplies half of our imports of chromite, 99 percent of coconut oil, 66 percent of manila cordage fiber, 100 percent of graphite, 50 percent of kyanite, over 30 percent of manganese ore, 88 percent of mica, 37 percent of palm oil, 96 percent of natural rubber, 58 percent of sapphires and rubies, 95 percent of shellac, 13 percent of talc, 58 percent of tin, 10 percent of vanadium ore or concentratives, and 98 percent of pepper. In addition, the area supplies 95 percent of our burlap, 38 percent of chinchona bark, 20 percent of goat and kid skins, and 73 percent of tea.

The extent of industrialization

If experts had been assembled a hundred years ago and asked to forecast which country in Asia would be the most industralized a century later, the country they would have been least likely to have chosen was Japan. The Japan of the 1850's was a barren, backward country, largely shut off from the rest of the world for more than 2 centuries. Lacking in resources, the 35 million people eked a scanty and precarious living from the seemingly unhospital soil. So great was the pressure of population on the land at that time that infanticide was widely practiced by parents too poor to feed another mouth. Governed by an idle, unproductive, and unimaginative horde of local lords and retainers, the country was torn with dissension and lacked political stability or constructive central government. Yet a century later in this country an economic miracle had come to pass.

A vast economic transformation had made Japan the leading industrial country in Asia. In manufacturing capacity, only Japan and India have significant plant, in all of free Asia. The region produces only 5 percent of the world's crude steel, 10 percent of cement output, and has 20 percent of world cotton spinning capacity. Japan produces 9.6 million tons of crude steel, 4.3 percent of the world total; India, 1.7 million tons. Japan produces 10.6 million metric tons of cement annually, 5.8 percent of the world total. India produces 4.5 million tons. Japan produces 42 million metric tons of coal, 3 percent of the world total; India, 37 million tons. In cotton textile output, however, India exceeds Japan. India has 11.4 million cotton spinning spindles, Japan has 7.8[4] million, which is 6.6 percent of world capacity.

Japanese output is a major share of the total industrial output of the whole ECAFE region. Japan produces 49 percent of the total coal output of ECAFE area, 22 percent of the iron ore, 61 percent of the cement, 69 percent of the electric power generated, 66 percent of the steel produced, 35 percent of the output of cotton yarn, and 34 percent of the production of cotton fabrics.[5] By what means

---

[3] See Japan's Natural Resources, by Edward A. Ackerman, University of Chicago Press, Chicago, 1953, p. 303.

[4] Before World War II, Japan had 11.5 million spindles; India (including Pakistan) had 9.5 million.

[5] Computed from Economic Survey of Asia and the Far East, 1955: Economic Commission for Asia and the Far East, Bangkok, 1956; and the Economic Statistics of Japan, 1955, Bank of Japan, Tokyo, 1956.

and processes Japan transformed herself into the leading industrial country of Asia is a complicated story told so well elsewhere that it need not be detailed here.[6]

Yet, despite the extensive industrial development in Japan, compared to western countries, the nations of Asia, including Japan and India, are far indeed from obtaining the levels of industrial development reached elsewhere. Only 26 percent of Japan's net domestic product comes from manufacturing and mining, as compared with 49 percent for West Germany, 42 percent for the United Kingdom, and 32 percent for the United States. On the other hand, in Japan 21 percent of net domestic product is derived from agriculture, forestry, and fishing, as against 11 percent for West Germany, 5 percent for the United Kingdom, and 6 percent for the United States.

When output is measured on a per capita basis in order to permit comparisons of countries regardless of size or population, we find that India produces 0.005 and Japan 0.108 metric tons of crude steel per capita, as compared to 0.396 for the United Kingdom, 0.427 for West Germany, and 0.643 for the United States. In short, while Japan's per capita steel output is 21 times India's, it is only approximately a sixth of that of the United States and one-fourth that of either Great Britain or West Germany. In coal production, Japan, with 0.0398 metric ton per capita, has almost 4 times the level of India (0.0085 metric ton per capita), but only about one-sixth that of the United States (0.227 metric ton per capita) and of West Germany (0.218 metric ton per capita), and but one-ninth that of Great Britain (0.368 metric ton per capita). Even in electric-power generation, where Japanese development is well advanced, while Japanese output is 33 times India's (0.0596 kilowatt-hour per capita as compared to 0.0018 kilowatt-hour), it is less than one-half that of the United Kingdom and West Germany (0.131 kilowatt-hour for the United Kingdom and 0.126 kilowatt-hour per capita for West Germany) and only about one-fifth of that of the United States (0.276 kilowatt-hour per capita).

The web of trade

In the 5 years, 1951–55, free Asia has absorbed about 11 percent of total world imports and has been responsible for approximately 10 percent of total world exports.

Of Asia's $9 billion of imports, Western Europe supplied some 30 percent, the United States 20 percent, and the Asian countries themselves 32 percent (of which Japan accounted for 6 percent). Of the $3 billion of Asian exports, 28 percent went to Western Europe, 18 percent to the United States, and 36 percent to the ECAFE countries themselves (with Japan absorbing 5.5 percent).

Over the last half decade, free Asian countries supplied about 6 percent of Western Europe's imports and took approximately 7.9 percent of Western Europe's exports. Of United States total imports, these Asian countries supplied 13 percent and took 12 percent of total United States exports.

Trade of these Asian countries with the Soviet bloc was small. In 1954 only 1.8 percent of imports from Europe came from Iron Curtain countries, while 2.4 percent of exports to Europe went to Eastern Europe. Trade with Communist China was also negligible. Thus, free Asia is linked to and dependent upon the non-Communist world for trade and payments viability. In turn, the loss of the $5 billion market which the United States, Western Europe, and Japan have in free Asia would be a serious blow. This would be especially true for Japan, which sends over 40 percent of its exports to Asian countries and obtains over one-third of her imports from them.[7] Free Asia is very important to the United States and Western Europe. It is even more important to Japan.

Japan's amazing recovery

Shorn of her pre-World War II possessions, Japan is now a small country. The 142,300 square miles of the 4 main islands and the small ones nearly give Japan a land area about the size of the State of California, and yet of this area only 15 percent is arable. Into this relatively tiny fringe of land off the Asian mainland are crowded 90 million hard-working, energetic, and industrious people, gravely handicapped in their struggle for subsistence by a frightening poverty of natural resources.

Indeed, Japan is an economic paradox. Once again the world's leading textile exporter, the country must import all of its raw cotton. Although the leading

---

[6] See the Economic Development of Japan, 1868–1938, by William W. Lockwood, Princeton University Press, Princeton, 1954.

[7] A Statistical Survey on Trade Between Japan and Asian Countries, Ministry of Foreign Affairs, Tokyo, 1955, p. 8.

steel producer in Asia, Japan lacks coking coal and has little iron ore. Its large aluminum industry is dependent upon imported bauxite. Japan's fertilizer industry is based upon imports of phosphate rock and potassic salt. Of the 33 metallic minerals used in industry, Japan has only 6. All the rest must be imported as must 95 percent of Japan's petroleum, 78 percent of the salt, and 20 percent of the food it consumes.

As Mr. Joseph Dodge, former financial adviser to General MacArthur and foreign economic policy adviser to President Eisenhower, put it succinctly: "The fundamental problem of the Japanese nation can be expressed in the simple terms of too many people, too little land, and too few natural resources. These combine to press heavily on every circumstance of national life." [8]

By aggression, Japan's militarists had hoped to secure permanent economic well-being through the creation of a Greater East Asia coprosperity sphere which would insure markets for manufactures, an endless supply of essential and cheap raw materials, colonial posts for ambitious and hotheaded young men who might otherwise cause trouble at home, and space for migration to decrease the population pressure at home. Ending as it did in disaster, it not only failed to alleviate such problems, but in fact added to their intensity.

Japan, in losing its empire, lost 52 percent of its area, and with it the dream of integrated economic development. Its access to food and industrial raw materials—to oil and salt and iron ore and rice—became more, rather than less, restricted. Its administrators, colonists, soldiers, and adventurers came pouring back into the 4 home islands—over 5 million were repatriated in 2 years—and the Japanese population, 72 million at the time of surrender, has now grown to 90 million.

Japan's capacity to balance its payments by maximizing its exports of goods and services was shattered by the wartime destruction of its industry and shipping. Approximately 40 percent of the built-up area of the 66 cities attacked by air was destroyed, as was 30 percent of Japan's industrial capacity, 80 percent of its shipping, and 30 percent of its thermal power. Two-thirds of the prewar cotton with capacity of 12 million spindles was scrapped by the Japanese war administrators, and then bombing caused further loss of some 20 percent in spinning capacity and 14 percent in weaving.

From the depths of defeat, destruction, and despair, Japan has, in one short decade, staged an amazing recovery. With one exception, all major economic indexes had, by 1956, exceeded prewar peaks. The exception was trade, more especially exports. Manufacturing and mining output, which fell to 30 percent of the prewar level in 1946, had by 1951 exceeded it and by 1956 was twice as high. The increase in electric power generation has been even greater with output now three times the prewar level. Even in the fields of agriculture, forestry, and fishery, where the growth of output is usually slow, all except sericulture, surpassed the prewar level in 1950 and by 1956 was 30 percent above prewar levels. Real national income which was reduced to less than 60 percent of the prewar figure in 1946 roughly recovered this level by 1950 and had by 1956 surpassed it by 50 percent.[9] Real income per capita rose 40 percent between 1950 and 1955 and by the end of 1955 was 14 percent above prewar.

The average annual rate of growth for mining and manufacturing production during the 10 postwar years has been 22 percent as against about 9 percent in prewar days. The rate of economic growth in terms of real national income has averaged more than 11 percent a year as compared to 3 to 5 percent prewar. From the outbreak of the Korean war to 1956, real national income rose 50 percent, nonagricultural production by 101 percent, and employment by 14 percent.[10]

Since 1950 Japan has had a more rapid industrial expansion than any other major manufacturing country, even greater than the remarkable recovery in West Germany's industrial output. Less of the expanded Japanese output was funneled into exports, however, than in the case of West Germany. Between 1950 and 1956 real exports (deflated to 1953 United States dollars) increased by 11 percent for the United Kingdom, 34 percent for the United States, 93 percent for Japan, and 157 percent for West Germany. The failure of Japanese exports to expand as rapidly as West Germany's may be attributed to three factors:

---

[8] Japan—Its Problems, Progress, and Possibilities, address by Mr. Joseph Dodge before the 48th annual banquet of the American Institute of Banking, New York, February 2, 1952, p. 5.

[9] General Survey of the Japanese Economy, Ministry of Finance, Japanese Government, Tokyo, September 1956, p. 2.

[10] See Survey of Economic Conditions in Japan, monthly circular, Mitsubishi Economic Research Institute, Tokyo, May 1956, p. 12.

(*a*) The vast inflation which gripped Japan during most of the postwar decade; (*b*) The consequent fact that it was more profitable to sell at home than abroad; and (*c*) Production costs in Japan in many lines, particularly heavy goods and chemicals, which were higher than competitors abroad. All of these factors tended to price Japanese exports out of world markets from time to time. Exports were the one major economic series which failed to recover prewar levels by the end of 1955, when they stood at 75.4 percent of the prewar figure.[11]

Naturally several intriguing questions suggest themselves. How did this rapid recovery come about? Since no single simple answer is likely, what were the factors responsible, in part, for what Thomas E. Dewey[12] described as "one of the economic miracles in the history of the world." Whether miraculous or manmade, why was the recovery more effective in Japan's domestic than in her foreign commerce? Why, that is, did exports lag behind and fail to regain prewar levels? Is the recovery firm and lasting? Has normalcy been regained or is Japan in fact, in the midst of a "fragile boom"? Are difficulties overcome major or minor, compared with those yet to be faced? Is the subtle aura of admiration for mutual accomplishment, emanating from both Tokyo and Washington premature or justified?

It is possible to isolate certain factors and claim with some degree of logic, that these were things which were especially helpful in promoting Japanese recovery.

First, the $5½ billion of United States funds poured into Japan during the postwar decade. Since the Japanese national budget provided for an annual expenditure ranging from $1.8 billion in 1950 to $2.8 billion in 1956, this was pump-priming on a major scale. During the first half of the decade it took the form of $2 billion of direct aid (GARIOA and EROA). Over the last half of the decade—the period following the outbreak of the Korean war in mid-1950—it consisted of expenditures of $3.5 billion for special procurement, the purchase of supplies, equipment, services and amusements for United States and U. N. troops in Korea, Japan and the Ryukyus. This injection of dollar plasma rehabilitated industry, balanced Japan's payments for the decade, gave consuming power, built a foreign exchange reserve. It also raised prices, a process in which the Japanese really need little help.

Secondly, it was a decade of expanding world recovery and prosperity characterized by a high and rapidly growing level of world trade. What trade expansion Japan enjoyed did not have to come at anyone's expense. As the pie grew steadily larger, each could have a bigger piece. Between 1938 and 1948 world exports (volume) rose only 1.4 percent. Between 1948 and 1956, world trade increased 61 percent. Between 1937 and 1947 world industrial production rose 21 percent. From 1947 to 1956, world production increased 70 percent. That Japan, under United States sponsorship, should share in and benefit from, a decade of marked economic expansion, was not unexpected.

This element of United States sponsorship constitutes the third factor in Japan's recovery. While in the early days of the occupation, United States policy held that it was up to the Japanese themselves to repair the economic damage they had suffered as a result of the war they had started,[13] this was soon perceived to involve unrealistic assumptions. There followed a wide reversal in the occupation role in Japanese economic affairs—at one point carried to the extreme of using Allied troops to enforce collection of both Japanese rice and taxes—and a wide turnabout in the United States view of the way Japan was to be treated. The immediate postsurrender attitude, that the magnitude of the crime at Pearl Harbor was so great that severe penalties should be imposed, gave way to the theory that Japan, defeated and weak, had to be restored to economic health so that she might cease to be a drain on the resources of the United States taxpayer.

A very large number of measures were undertaken by the occupation, ranging from direct aid to currency reform, tax revision and establishment of a counter-

---

[11] See Nihon Keizai Menpo—1st quarter, no. 90, Toyo Keizai Shimpo-Sha, Tokyo, 1956, 271 pp.

[12] Former Governor of the State of New York and twice candidate for the Presidency of the United States. He made this statement in a speech before the Japanese Chamber of Commerce of New York at a luncheon meeting for Mr. Hisato Ichimada, Japanese Finance Minister, on October 2, 1956.

[13] The original United States Presidential policy statement on Japan made abundantly clear that the responsibility for economic reconstruction was to be left primarily in the hands of the Japanese people and their Government. The statement, made public on September 22, 1945, disclosed in part: "The policies of Japan have brought down upon the people great economic destruction and confronted them with the prospect of economic difficulty and suffering. The plight of Japan is the direct outcome of its own behavior and the Allies will not undertake the burden of repairing the damage." Pt. IV, sec. 3.

part fund, the proceeds of which were to be used for rehabilitation of Japanese industry. After the signing of the peace treaty in 1952, the United States Government sponsored Japan's reentry into world-trade relationship, concluding reciprocal trade agreements with her, securing her admission to the General Agreement on Trade and Tariffs, using its own tariff concession to other nations to secure favorable treatment for Japan. United States firms concluded a wide series of technical-assistance contracts with Japanese companies enabling them to obtain the latest know-how, patents, copyrights, and machinery and equipment, as well as training of their technicians. The United States International Cooperation Administration established a productivity center in Japan to help Japanese industries to become more efficient and competitive. The United States Export-Import Bank granted a long series of revolving credits to Japan to enable it to buy United States raw cotton on favorable terms and under United States surplus commodity disposal agreements with Japan, Japanese textile interests were enabled to purchase United States cotton at prices below those charged United States textile manufacturers. With United States support and urging, the World Bank granted Japan a series of loans to rehabilitate, modernize, and expand electric power and steel-producing facilities. To what extent these and a host of related measures, too numerous to detail, aided Japanese recovery, will be long debated both in the United States and in Japan but it seems reasonably clear that the positive and helpful United States attitude, in contrast, for example, to the negative, truculent and restrictive activities of the Soviet Union, eased Japan's way over the difficult postwar decade.

The postwar world trend toward liberalization of trade policies, slow and limited though it may have been, was a fourth factor which was of some benefit to Japan. In 1938 Japan was responsible for 5.37 percent of total world exports. In attempting to build back to this figure over the last decade—the effort being only half successful since Japan's exports in 1955 were but 2.44 percent of the world total—she was at least hampered less than she might otherwise have been, by the activities of the IMF, the ITO, GATT, the IBRD, the EPU and the painfully slow efforts to restore currency convertibility. While some nations continued to discriminate against Japanese products right down to the end of the decade, the general international atmosphere of disapproval and discouragement of such restrictions, undoubtedly lessened and weakened the extent of the discrimination, which in the absence of this international attitude, might have been much more severe.

The industrial boom, stimulated by the outbreak of the Korean war, was a fifth factor aiding Japanese recovery. By increasing Japanese industrial output to much higher levels than had been realized in the previous postwar years, it netted substantial profits for industry, which when plowed back raised the rate of capital formation in Japan to a new postwar high, permitted widespread replacement of obsolete and inefficient equipment. By raising employment and wage income to new high levels it led to a domestic consumption boom, which brought Japanese output to new peaks. Capital formation in Japan from 1950 on was substantially higher than in prewar years.

Paradoxically, it seems likely that the alternation of several periods of inflationary expansion followed by periods of sound money containment both helped to achieve higher levels of output and employment for Japan. The inflationary excesses of the 1945–March 1949 period, while they perhaps created more problems than they solved, did help to lubricate the Japanese economic machine and start it functioning once again. That the containment policy pursued by Mr. Dodge in 1949 and 1950 (until the outbreak of the Korean war) came just in time and was needed to prevent inflationary excesses from dissipating any gains which the monetary and fiscal acceleration had stimulated and therefore consolidated Japan's economic position and provided a more solid and sound base from which to move forward again, also seems likely. That the industrial expansion engendered by the Korean war, leading into the domestic consumption boom of 1953, carried output and employment to new high levels, was as clear as the inflationary excesses it created. Consequently the classic sound money policy instituted in the fall of 1953 by the Yoshida Government and continued largely into 1956 under the guidance of Hisato Ichimada, at the beginning of the period Governor of the Bank of Japan, later Finance Minister, was a much needed corrective, which by greatly improving Japan's monetary, fiscal and price structure, enabled her to right her international economic position and press on to new gains in this area. This monetary policy in the postwar decade may be regarded as a sixth factor contributing to Japan's economic recovery.

Finally, and perhaps most basic to this recovery, however, was the attitude and know-how of the Japanese people. Hardworking, industrious, firm in their determination to overcome poverty and devastation, they were fortunately possessed of the knowledge of industrial processes and the techniques of foreign trade. Japan is not an underdeveloped country. The Japanse people know well how to produce goods and penetrate foreign markets. They did not need to learn these basic concepts from the ground up as was true in much of the rest of Asia in the postwar decade. All they needed was a chance to apply their ingenuity and resourcefulness and when this came to them at the end of the occupation, along with fortuitous developments (to them) such as the Korean war boom and a favorable international atmosphere of expanding trade and declining restrictions, they simply put their knowledge to work. The encouraging economic results attest to the view held by careful observers of the Japanese scene, that in the context of a peaceful world, with expanding trade and rising standards of living, the Japanese will make their way.

Reviewing their accomplishments at the end of a difficult decade, a note of caution ran through many of the more skilled of Japanese analyses. While the feeling was widespread that the recovery from the immediate postwar chaos and confusion had been achieved and that Japan had successfully overcome her short-run temporary problems, there was the added view that she would now need to face her longer run, far more deep seated and basic dilemmas, before indulging in unrestrained rejoicing.

People and food

The population of Japan reached 90,017,000 on July 1, 1956, making Japan third among nations in population density. Only the Netherlands and Belgium are more thickly populated. Figures compiled in 1780 and 1846 indicate that the Japanese population remained comparatively stable at about 26 million for more than a century preceding the Meiji Restoration in 1868. The natural increase in population which multiplied the Japanese population by more than three times and brought it to this 90 million mark is therefore a development of the past century. In Japan, as in the case of Europe, the increase in population accompanied the growth of modern industry.

Japan's population in 1872 when the first national census was taken totaled 34,800,000. By 1912 it had reached 50 million; by 1937, 70 million. Since the end of World War II the population of Japan has increased by 18 million. The magnitude of this postwar increase can be fully appreciated if one stops to realize that this figure well exceeds the population of Canada, and is twice the population of Australia. Population experts predict that the country will pass the 100 million mark some time before 1970.

It is not the rate of increase in the population, which is now lower than the United States rate, but the increase in absolute numbers—close to a million a year—adding to the present 90 million in relation to a very small arable land area, which makes the long-run Japanese problem serious and difficult.[14]

The Japanese birth rate has declined considerably in the postwar period, and is now less than two-thirds the prewar rate. Yet the death rate has dropped even more drastically and is now less than half the prewar level. The decline in the birth rate was due in part to the enactment of the eugenics protection law (July 13, 1948) under which (*a*) the sale of contraceptives, banned by law up to that time, became legal, and (*b*) induced abortion was permitted if deemed necessary in the judgment of a designated physician and if the agreement of the expectant mother and her spouse was obtained.[15] The latter was probably more effective than the former in contributing to the decline in the birth rate. The number of induced abortions rose from 246,104 in 1949 to 1,140,000 in 1954. Thus the rate of abortions to births jumped from 9 percent in 1949 to a startling 64 percent in 1954.[16]

Japan's death rate is now down to that of Western countries. Although part of the decline may be attributable to the fact that a large number of invalids and persons of weak health died during and immediately following the war, the

---

[14] For a detailed treatment of Japan's population problem, see Nippon Jinko Zusetsu (Graphical Exposition of Japan's Population), by Ayanori Okazaki, 170 pp., Toyokeizai Shinpo-Sha, Tokyo, 1955.

[15] The law was revised in 1952. Under the 1948 act its was necessary to apply to the eugenics protection examination committee for approval in order to perform an induced abortion. This requirement was eliminated in the 1952 act.

[16] See Japan's Population Problems, by Ayanori Okasaki, Ministry of Foreign Affairs, Tokyo, 1956, p. 7. It should be noted that the figures on abortions are only those reported to the Ministry of Welfare in accordance with the law and do not include the large number of cases of unreported illegal abortion.

importation, and subsequent manufacture in Japan, of large supplies of new wonder drugs and, particularly, the remarkable improvement in Japan's postwar public-health facilities, are the main factors responsible for the sharp drop in the death rate.

Japan's birth rate is now lower than and her death rate comparable to those of such relatively unoccupied and sparsely populated countries such as New Zealand and South Africa. In view of the marked decline which has already occurred, the birth rate cannot be expected to go much lower and Japan will do well to hold to the present level over the next decade. Thus relief from the pressure of population on the land, through a further considerable decline in the rate of population growth, is not likely.

Japan's growth has made the problem of overpopulation even more acute than in the past. In 1935 each hectare,[17] or 2½ acres of arable land, had to feed 14 persons. Today the same land area must feed 18 persons. Only 1 acre in each 6 is cultivable. For each square mile of farmland, Japan has more than 12 times as many people to feed as the United States has.

In the century from 1860 to 1960, Japan's population will have tripled, but its area under cultivation will have increased only a third. The area of cultivated land during the 1881–90 decade averaged 4.6 million hectares, or 12 percent of the total land area. Cultivated land was enlarged steadily until 1921 when the area reached 6.04 million hectares. The area remained relatively constant until World War II when some farmland was taken over for military purposes. Land available for crops in 1955 was estimated at 5.1 million hectares, or 14 percent of the total land area. If meadows and pastures be added to cultivated land the total rises to 17.4 percent of total land area. In striking contrast 68.5 percent of the land area of the Netherlands falls in these 2 categories, 79 percent in Great Britain, 68 percent in Italy, and 58 percent in the United States. The mountainous nature of Japan's terrain renders most of it unfit for cultivation.

As a result, Japan has but 0.06 cultivated hectares per capita, the lowest figure for any Asian, African, or Latin American country. India has 0.40, China 0.16, Indonesia 0.14, six and a half, almost 3, and 2 times as much, respectively, as Japan. The Asian comparisons may be stated in slightly different terms. Japan had a population density of 4,519 persons per cultivated square mile to 1,657 for China, 953 for the Philippines, 1,826 for the United Kingdom, 527 for France, and 221 for the United States.

The large gains in agricultural productivity which the other underdeveloped countries of Asia seek have already been attained in Japan. Japanese rice yields per acre, using extensive irrigation and fertilizer, are already among the highest in the world.[18] Despite the fact that in 1955 Japanese rice output reached a new all-time peak, more than 20 percent of food consumed had to be imported. In 1954, Japan spent $624 million, or 30 percent of total imports, for foodstuffs. In 1955, it spent $524 million or 28 percent of total imports. Japan's dependence on imports of staple foods rose from 9.6 percent in 1934–36 to 22.5 percent in 1955.

In addition to the food deficiency, most of the industrial raw materials needed to sustain manufacturing output must be imported. In 1955 textile raw materials cost Japan $492 million; petroleum $214 million, and minerals, metals and coal $192 million, or a total of $898 million—49 percent of total imports. Japan must bring in all the bauxite, raw cotton, raw wool, rubber and phosphate rock it requires, as well as the bulk of iron ore, zinc, salt and a third of the needed coking coal. Japan's domestic production provides less than 10 percent of its petroleum requirements.

In the postwar period this dependence has been heightened, rather than lessened.[19] For one, industrial output, utilizing imported raw materials, is now double prewar levels. Secondly, the loss of colonial areas from which Japan obtained many of these resources prewar, now makes their importation a matter of foreign exchange, rather than yen, expenditure. Thirdly, even the few resources which Japan did possess in some quantity are now approaching a condition of uneconomic recovery. In coal mining, for example, seams are now generally thin compared to those in other mining countries. In most Japanese fields they are broken and discontinuous and some of the important mines must contend with large amounts of ground water. Some galleries even extend under the sea, where water disposal, proper ventilation, and transportation are all

---

[17] A hectare is a unit of area in the metric system equal to 2.45 acres. The Japanese unit of land measure, the cho, equals 1 hectare. One cho is subdivided into 10 tan. Therefore, 1 tan equals 0.245 acre.

[18] Japan's Agriculture, by Seiichi Tobata, Japanese Ministry of Foreign Affairs, Tokyo.

[19] See Economic Survey of Japan (1955–56), Economic Planning Board, Japanese Government, Tokyo, September 1956.

more difficult than in other countries. Because of such conditions mining costs in Japan are relatively high and Japanese mining and manufacturing correspondingly handicapped.[20]

Thus in food, in textile fibers, in metals and minerals, in coking coal, and in liquid fuels, Japan must look abroad for the satisfaction of its basic minimum requirements. Therefore the problem of assuring adequate essential supplies for its economy, and, indeed, of economic viability itself, becomes essentially a foreign-trade problem. Japan must sell enough abroad to pay for essential imports. It must generate a volume of exports large enough to cover necessary foreign-exchange expenditures.

The role of foreign trade in Japan's economy

This Japan has been unable to do in the postwar decade thus far, although the results for 1955 are hopeful. Its balance of payments and its economy have been sustained by $2 billion of United States aid in the first half of the postwar decade and by more than $3 billion of United States (and U. N.) special procurement and troop expenditures during the latter half. In 1954, for example, Japan's overall balance of payments showed a surplus of $100 million, but special procurement receipts that year (included in the balance of payments) amounted to $596 million. In the absence of these abnormal receipts Japan would have run a substantial deficit. In 1955 the balance of payments surplus was $494 million, but this resulted, in part, from an expenditure of $557 million for special procurement by the United States. In the absence of such United States outlays, Japan would have had a small deficit in its international payments.

In the prewar period, Japan's trade amounted to approximately 5 percent of total world trade. This was cut to a fraction of 1 percent in the immediate postwar years, but it has since been climbing. For 1955, Japan's share of world imports amounted to 2.8 percent, its share of world exports to 2.4 percent. Thus Japan is about at the halfway mark in its effort to restore its position in international trade. The fact that the ratio of exports to national income, which was 18 percent prewar, is now about 9 percent tends to confirm this. On a volume basis, Japanese exports in 1955 were but 50 percent of 1937 levels, while imports had reached 76 percent of prewar. When it is remembered that over the same period Japan's population increased from 70 million to 89.2 million, the lag in Japanese exports becomes even more apparent.

Clearly, the key to further growth in the Japanese economy, to industrial expansion and increased employment and higher levels of income, is export expansion. Unemployment is at present a serious problem in Japan. Mr. J. Marc Gardner, of the J. Henry Schroder Banking Corp., in a report summarizing his recent trip to Japan, declared: "However, as many persons are only partially employed it has been estimated that hidden unemployment and underemployment in Japan may total as high as 8 million persons."[21] Yet a domestic production and consumption boom alone, unaccompanied by export expansion such as occurred in 1953 would not only not help Japan's basic economic position, but would actually be harmful. For the increased domestic output would necessitate a larger volume of imports. Increased domestic demand would raise prices in Japan. Producers would find it easier and more profitable to sell at home. Japanese exports would be priced out of world markets and producers would be making little effort to sell abroad precisely at a time when greater foreign exchange earnings were needed to pay for increased imports. Thus the domestic inflation would be accompanied by a worsening of Japan's balance of payments position and the loss of foreign exchange would soon force authorities to curtail imports thus bringing the domestic boom and expansion to a halt. Lasting increases in Japanese industrial output and employment can only be achieved by export expansion.

Costs, prices, and markets—Japan's competitive position

Traditionally, Japan has built its export drives on textiles. In the production of such goods it had, and still has, the comparative advantage of a low cost and efficient operation. Exports of textiles still predominate in the commodity pattern of Japan's sales abroad. In 1955 textiles and textile products accounted for 37 percent of total Japanese exports. For 1954 the comparable figure was 42 percent. Japan has regained its position as the world's principal cotton

[20] See Japan's Natural Resources, by Edward A. Ackerman, University of Chicago Press, Chicago, 1953, p. 179.

[21] Some Observations of Our Vice President, Mr. J. Marc Gardner, on His Recent Visit to Japan, J. Henry Schroeder Banking Corp., New York, January 27, 1956, p. 3.

textile exporter. In 1955 it shipped 1,139 million square yards.[22] India was second with 750 million square yards, Britain third, the United States fourth. In reentering world trade in rayon and other synthetic fibers Japan has had great success. A rise of 55 percent over 1954 occurred in shipments of spun rayon fabrics.

Yet the very importance of textiles in Japan's export pattern presents a future problem and threat. The usual first step in the industrialization of any underdeveloped country is the establishment of a textile industry and the imposition of protective tariffs to protect the "infant" industry. As they develop, countries tend to become quickly self-sufficient in textiles. Despite Japan's No. 1 status in the world cotton textile market, world trade in cotton textiles was 11 percent less in 1955 than in 1954, although world production was 1½ percent higher. Japanese cotton textile exports were one of its few major exports commodities which showed a decline in 1955, 9 percent below the postwar record exports of 1954. This decline, which occurred despite a sharp increase in shipments to the United States, was due primarily to restrictions on exports to Indonesia, which in the past has taken as much as a third of Japan's total cotton fabric exports. The restrictions were imposed to prevent an increase in the unpaid trade balance which Indonesia owes Japan.

For the first time the value of iron and steel exports exceeded that of cotton textiles. While total textile exports ($722 million) still exceed exports of metals, metal products and machinery ($657 million), the latter have been rising, while the former have been declining as a percentage of total exports. Metals and products rose from 14 percent of total exports in 1936 to 27 percent of total exports in 1954 to 33 percent in 1955, while textiles and products fell from 53 percent in 1936 to 42 percent in 1954, to 37 percent in 1955.[23]

This changing export pattern reflects, in part, structural changes in Japanese industry. Before World War II, the textile industry was by far the largest sector of manufacturing industry, accounting for about 29 percent (in 1936) of the value of factory production and for 38 percent of total factory employment. Today, the textile trades employ fewer workers than they did 25 years ago, although factory employment as a whole has more than doubled.[24] These trades are now smaller, absolutely as well as relatively, than they were before the war.

This changing structural pattern creates a problem for the Japanese in international trade because, in contrast to their advantageous cost position in textiles, in iron and steel, metal products, and machinery, they are higher-cost producers than their major competitors. The Japanese Economic Planning Board estimates that Japan still needs twice as many man-hours to turn out a ton of pig iron, or a ton of steel as Britain. Thus, in spite of the relatively lower wages of the Japanese factory hands, the labor cost per ton, is substantially greater, both for pig iron and for steel, than the British cost. The explanation of the 55 percent increase in Japanese exports of iron and steel in 1955 seems to lie in the fact that, although their prices continued to be above those of other suppliers, Japanese producers could offer earlier delivery dates or other special trade arrangements. Over the longer run, however, to cope with British, West German, and United States exports, Japanese prices will have to become competitive, as the advantage of more immediate delivery is lost.[25]

Japanese foreign trade—an overview

Under the impetus of the continued business boom in the United States and Western Europe, Japanese foreign trade expanded encouragingly during 1955. Perhaps the outstanding feature of Japan's developing export trade is the growing diversification both as to products and markets. Except for the United States, no one country now absorbs more than 4 percent of total Japanese exports. Only 15 countries last year bought more than 2 percent of the total. This is an advantageous development for Japan because it means that Japan is flooding no one country with excessive quantities of goods and the impact of Japanese trade expansion is minimized insofar as foreign resentment and retaliation is concerned.

---

[22] But it is far from regaining its prewar export volume of 2,800 million square yards. See Foreign Trade of Japan, Quarterly Fuji Bank Bulletin, vol. VI, No. 3, December 1955, p. 10.

[23] See Foreign Trade of Japan, 1956, Ministry of International Trade and Industry, Japanese Government, Tokyo, 1956.

[24] See Industrial Production and Productivity in Japan, by G. C. Allen in the Westminster Bank Review, London, August 1955.

[25] See The Structure of Japan's Foreign Trade Before and After the War, the Bank of Tokyo, semiannual report, Tokyo, March 1956, pp. 5–33.

During 1955 the trade gap with the United States was greatly narrowed. The previous year's trade deficit with Western Europe was converted into a surplus. Exports to Canada, Australia, and New Zealand were doubled in 1955, and exports to Africa increased by some 50 percent. While sales to Latin America were slightly lower in 1955 than in 1954, Argentina and Brazil, which accounted for about 60 percent of the Latin American total, were the leading purchasers of iron and steel products, exports of which rose 62 percent in 1955 as compared to 1954.[26]

Japanese Ministry of Finance Customs statistics indicate that Japanese exports rose from $1.2 billion in 1953 to $2.0 billion in 1955, an increase of 66 percent, while over the same period imports were stabilized at $2.4 billion.[27]

For the fiscal year beginning April 1, 1955, and ending March 31, 1956, Japanese exports according to the Ministry of Finance, rose to a new postwar high of $2,137,442,000, an increase of 24.4 percent over fiscal year 1954. Export trade during the first 3 months of 1956 (last quarter of fiscal year 1955) was 34 percent above the level of the corresponding period in the previous year. As a result the foreign exchange accounts showed a surplus of $535 million for the whole of fiscal 1955 (ending March 31, 1956) as against a surplus of $191 million for fiscal year 1954.[28]

Trade with the United States

In commercial trade with the United States, Japan has incurred large deficits in the postwar period. In contrast, in the prewar period, Japan was able to balance its trade with the United States, principally by sales of raw silk and shipping services. Over the 1930–34 period, Japan's raw silk exports to the United States averaged 515,000 bales annually. Currently United States silk imports are but a fraction of the prewar figure. In much of the prewar period, a triangular type of trade developed whereby Japan bought raw cotton in the United States and sold finished textiles to other areas (chiefly Asian countries) which in turn sold various raw materials to the United States. Thus, although Japan showed a deficit in its trade with the United States, its exports to the rest of the world yielded the dollars, through conversion, with which to pay the United States.[29] But the currency convertibility upon which such multilateral trade rested in the prewar period has now largely vanished. Furthermore, the now independent countries of Asia, by exchange control, reserve their dollar earnings for themselves. The large Indonesian balances ($210 million) owed Japan, for example, are not only not convertible, they seem to be largely uncollectible.

The large deficits in trade with the United States in the postwar period could not have been incurred, had it not been for abnormal United States dollar outlays for aid, special procurement, and so forth. Having been warned that United States special procurement outlays were to be tapered gradually, the Japanese have been attempting to narrow the gap in their trade with the United States, both by shifting to other import sources and at the same time increasing and diversifying exports to the United States. In 1955 this policy met with considerable success, though in good part due to two nontrade factors: the large increase in rice production in Japan[30] and the sale of United States foodstuffs under surplus disposal terms for yen rather than for dollars.

---

[26] See Our Exports and Imports, Monthly Review of the Mitsui Bank, Ltd., vol. 1, No. 4, Tokyo, April 1956.

[27] Weekly Review of Economic Affairs in Japan, Bank of Tokyo, No. 423, Tokyo, May 5, 1956, pp. 151–153.

[28] News Survey, the Bank of Japan, No. 122, Tokyo, May 4, 1956.

[29] Japan's Foreign Trade, by Ryokichi Minobe, Japanese Ministry of Foreign Affairs, Tokyo, 1956.

[30] The rice crop was 30 percent greater than in 1954. In 1955 Japan produced an unprecedented bumper crop of 79 million koku (1 koku is about 5.12 bushels) compared to an ordinary crop of some 66,700,000 koku. The rice crop for 1956 is estimated at about 73,000,000 koku.

Compared to a dollar trade gap of $514 million in 1951 and of $469 million in 1954, the 1955 figure was narrowed to $103 million.[31] Japanese exports to the United States rose 81 percent in 1955 over 1954. Japanese imports in 1955 from the United States were 21 percent lower than in 1954. Although the export expansion seemed large percentagewise, total Japanese exports to the United States amounted to only 3.8 percent of United States imports, a much smaller share than Japan's prewar proportion. Indeed percentagewise Japan is not an important factor, at present, in United States foreign trade, taking but 4.7 percent of United States exports and providing 3.8 percent of total United States imports. On the other hand, the United States is a dominant factor in Japanese foreign trade, supplying 31 percent of Japanese imports and taking 22 percent of Japan's exports (in 1955).

Yet percentages, like averages, often conceal more than they reveal. Japan is the best single customer for United States cotton, wheat, rice, and soybeans, and, in the absence of convertibility and in the face of diminishing receipts of United States special funds, cannot be expected to maintain its large purchases from us, unless allowed to sell us. There was in 1955 a clear shift to sterling-area and other sources of supply and this trend can be expected to continue slowly if we do not close our markets to Japanese products, more rapidly if domestic protectionist interests make their demands prevail in Congress. In 1955 Japan bought $120 million of raw cotton from the United States. It sold the United States $30 million of cotton textiles. Japan took 647,000 bales of raw cotton, 26 percent of the total exported.[32] United States imports of cotton textiles from Japan in 1955 amounted to 1.5 percent of total United States cotton textile production.[33]

Japan and southeast Asia

In 1934–36 the countries of south and southeast Asia[34] took 19 percent of Japan's total exports. In 1954 they absorbed 32 percent and in 1955, 28 percent. The area provided 17 percent of Japan's total imports in 1934–36, while in 1954 it supplied 19 percent and in 1955, 21 percent.[35]

These figures indicate that although some gain in trade with the area has been achieved, the frequently voiced hope that the area would prove the main factor in improving Japan's trade position has hardly been realized. Neither as an absorber of exports, nor as a provider of imports, has the area measured up to optimistic expectations. There are a number of reasons for this. In the first place, the purchasing power of the area is low; per capita incomes, while rising in recent years, are meager, even by Japanese standards. In due course, development programs presently underway will increase purchasing

[31] These data are based on Japanese foreign exchange statistics of the Bank of Japan. Actual Japanese imports from the United States were somewhat higher than the $572 million (1955) reported in Bank of Japan Foreign Exchange Statistics Monthly because of cotton imports on Export-Import Bank credits and food imports paid for in yen. The discrepancy may be seen in the following:

JAPAN-UNITED STATES TRADE

[In millions of dollars]

	1955		1954	
	Japanese exports to United States	Japanese imports from United States	Japanese exports to United States	Japanese imports from United States
Bank of Japan Foreign Exchange Statistics Monthly	469	572	258	727
U. S. Department of Commerce	416	642	276	847

[32] See Monthly Report of Japanese Cotton Spinning Industry, published by all Japan Cotton Spinners' Association, No. 111, Tokyo, March 1956.

[33] For a more detailed statement, see testimony of Nelson A. Stitt, executive director, Council for Improved United States-Japanese Trade Relations, before the subcommittee on Cottotn of the Committee on Agriculture, U. S. House of Representatives, Washington, D. C., February 7, 1956.

[34] Includes Burma, Ceylon, India, Indochina, Indonesia, Malaya and Singapore, Pakistan, Philippines, Thailand, and Sarawak. Excludes Hong Kong and Formosa.

[35] See table 26, p. 49, of Economic Survey of Japan (1955–56), Economic Planning Board, Jaapanese Government, Tokyo, 1956.

power, but this is likely to be a long, slow process, with inflation and population increases absorbing some of the gains.[36]

Secondly, the Japanese have had to face stiff competition in export sales to the area, especially from West Germany and Great Britain. Particularly in capital goods and equipment they have been undersold by the Germans, in fertilizer by the Italians, and in some categories of textiles, by India.

The reparations problem is a third factor which has hindered trade development to a degree. Although reparations agreements have been concluded with Burma and Thailand, no settlement has as yet been arranged with Indonesia, while the Philippines settlement has just been arranged. In an agreement concluded in November 1954, effective April 1955, Japan agreed to pay Burma $250 million in goods, services and loans over a 10-year period. Likewise, Thailand is to receive $41,666,666 in cash, goods, and services over a period of years. The Philippines agreement, approved by the Japanese Diet in June 1956, provides that Japan is to pay to the Philippines in reparations (goods and services) a total sum of $550 millions during the next 20 years ($25 million annually during the first 10 years, and $30 million annually during the remaining period). In addition, the Japanese Government will facilitate the extension of commercial loans amounting to $250 million for economic development of the Philippines.[37]

A fourth and very important restrictive factor, is the multiplicity of trade and exchange controls, quotas, lack of convertibility, newly imposed tariffs designed to protect infant industries, etc., which face the Japanese in south and southeast Asia. Since Japan is not a member of any trading bloc or currency area, but is very much on its own in international trade, these restrictions are a greater barrier than might otherwise be the case.

Indonesia is a case in point. Exports to Indonesia fell from $123 million in 1954 to $68 million in 1955 (although imports rose slightly, from $62 million to $67 million). Indonesia's inability to pay either in goods or in foreign exchange caused Japan to reduce its exports.[38]

Factors tending to stimulate Japan's trade with south and southeast Asian countries are: national development programs which tend to increase demand for imported capital goods and equipment, and raise output of goods available for export. For example, in the case of India, Japan's exports rose from $37 million in 1954 to $66 million in 1955 (imports from $32 million to $46 million).[39] Other factors include United States dollar aid, such as ICA expenditures in Vietnam, which is used to buy supplies and equipment in Japan; and Japanese investment in south and southeast Asia. The latter is developing at a slow pace but there are encouraging examples.[40] Japanese mining companies and Japanese capital are helping to develop iron ore output in Goa, in Malaya and in the Philippines. Japanese fishing companies have invested capital in Indian and Ceylonese fishing enterprises. Asahi Glass has provided 51 percent of the capital for an Indian glass company. The reparations agreements with Burma and the Philippines are likely to lead to Japanese capital investment in those countries. Prospects for increased trade with the Philippines have been enhanced, not only by the conclusion of a reparations agreement, but also by the revision of the Philippines-United States trade agreement which became effective January 1, 1956. Under the revised agreement, United States products now entering the Philippines free of normal customs duties will lose about 90 percent of this preference at an accelerated rate over the next 10 years. As the United States loses some of this market, which has amounted to about $500 million annually, Japan can be expected to gain correspondingly.

In developing greater trade and investment ties with south and southeast Asia, the Japanese must pursue a wary course. There is still a good deal of suspicion and ill will and bitterness toward the Japanese in most of the area. If they appear to be pushing too much or going ahead too fast, fear of domination will develop and barriers will rise. If, on the other hand, they fail to be resourceful, energetic and quick to seize or develop a prospectively good economic opportunity, the Chinese or Germans or Indians or British can be expected to move rapidly and the Japanese national interest will suffer. There is a com-

---

[36] See Postwar Economic Growth in Southeast Asia, International Bank for Reconstruction and Development, Study No. E. C. 48, Washington, October 10, 1955.
[37] Fortnightly letter, the Bank of Japan, No. 135, Tokyo, May 16, 1956.
[38] See Japan Trade Monthly, No. 126, Tokyo, September 1956, p. 46.
[39] The Trade Between Japan and India, Survey of Economic Conditions in Japan, Mitsubishi Economic Research Institute, Tokyo, July 1956.
[40] The Rehabilitation of Japan's Economy and Asia, by Saburo Okita, Ministry of Foreign Affairs, Tokyo, 1956.

plimentarity between the resources of the southern regions, as the Japanese perceived even before World War II, and Japanese industrial capacity, but if the Japanese are too obvious in exploiting it for their own ends, they will develop a hostile reaction. There is growing evidence that they realize that their posture must be one of mutual benefit and mutual assistance.[41]

Japan and the Communist bloc-economic relations

Large sectors of public opinion in Japan regard increased trade with the Communist bloc as a necessary and desirable objective; some elements even view it as an economic panacea. What are the facts of the situation? How necessary is Communist bloc trade to Japan? How likely is it to develop?

In the midthirties about 20 percent of Japan's imports came from Korea and Formosa, which were then Japanese colonies, and another 10 percent, approximately, from China; about 25 percent of Japan's exports went to Korea and Formosa and about 20 percent to China (including Kwantung and Manchuria). Now (1955) political and economic changes have reduced imports from China, Korea and Formosa to only about 7 percent of Japan's total and exports to 5 percent.[42]

Before World War II, Mainland China (including Manchuria) was a major market for Japanese products, largely as a result of Japanese domination and control as well as Japanese investment in Manchuria. Today mainland China (including Manchuria) and the entire Soviet bloc, including the U. S. S. R. itself, take only 1.8 percent (1955) of total Japanese exports. In the prewar period Japan sold cheap consumer goods and textiles to China and obtained soybeans, edible oil and oil seeds, coking coal and iron ore (from Hainan Island) in exchange.[43] In 1955, Japan obtained only 3.0 percent of its total imports from iron curtain countries, including Red China and the U. S. S. R.

According to the Bank of Japan (Foreign Exchange Statistics), Japan exported $28.3 million to Communist China in 1955 and imported $50.1 million, for a net deficit of $21.8 million. According to the Ministry of Finance (Customs Division), Japan exported $28.5 million to Communist China in 1955 but imported $80.7 million, for a deficit of $52.2 million. By way of contrast, Japan's exports to Formosa in 1955 totaled $58.4 million; imports amounted to $76.3 million.

Naturally, when the Japanese turn to explore avenues of expanding trade with Asia, many of them think nostalgically of the old China trade.[44] The Osaka textile merchants, who have been among the most vociferous of those pressing for expanded trade with mainland China, are quite likely to be disappointed. It is hardly probable that with the state in China controlling foreign trade and committed to the amazing industrialization goals of the first 5-year plan, China will want to, or will have, very much exchange to buy any significant quantity of Japanese consumer goods and textiles.

In view of the huge industrialization effort, in contrast to the minimum agricultural outlays contemplated, it may be that over time China will seek to buy substantial amounts of Japanese capital goods and equipment, but it is difficult to see what can be tendered in payment. The Chinese contemplate that they can raise the index of industrial production (1952=100) to 192 by the end of 1957. They expect to raise crude steel output from 1.2 million to 4.8 million tons, over the same period.[45] Under the circumstances it is improbable that they will have any significant amount of coal or iron ore to spare to send to Japan. Outlays for industrialization absorb 48 percent of 5-year plan expenditures with overwhelming emphasis placed on heavy industry. Agriculture, on the other hand, is relatively neglected in the overall investment pattern, yet it is to be drained of funds in a siphoning-off process to promote industrialization. Peasant resistance, famine, starvation, which may plague Communist China over the next decade, make it questionable that any sizeable quantity of foodstuffs can be squeezed out of the Chinese economy for export to Japan.[46]

---

[41] See A Statistical Survey of Trade Between Japan and Asian Countries, Ministry of Foreign Affairs, Japan, 1955.

[42] Based on Foreign Exchange Statistics of the Bank of Japan and exclusive of any transshipments through Hong Kong, recorded as trade with Hong Kong.

[43] See Present Status of Japanese Trade With China, Mitsubishi Economic Research Institute, Monthly Circular, Tokyo, October 1955.

[44] See Trading With China, the Oriental Economist, vol. XXIV, No. 550, Tokyo, August 1956; and Trade With Communist China, the Oriental Economist, vol. XXIV, No. 548, Tokyo, June 1956.

[45] See The Prospects for Communist China, by W. W. Rostow et al., Technology Press and John Wiley & Sons, Inc., New York, 1954.

[46] See China's Export Capacity, in Sino-Soviet Economic Relations, by Alexander Eckstein, in Moscow-Peking Axis: Strengths and Strains, Harper & Bros., New York, 1957.

85589—57——7

It is possible to qualify this doubt as to China's (or indeed the entire Soviet bloc's) ability to pay for industrial imports. Mr. George Waldstein, a Harvard graduate student, has taken the 17 leading Japanese imports (for 1951 and 1953) and compared them with Soviet bloc exports of the same products to the free world. These 17 key commodity imports accounted for almost 72 percent of total Japanese imports in 1953. It is clear that except for four commodities—coal, soybeans, timber, and oil seeds—the total volume of Communist bloc exports to all Western countries of the items urgently needed by Japan were, in both 1951 and 1953, less than the import requirements of Japan alone.[47]

Extending the analysis to the years 1954 and 1955 reveals that, for both years, hides and skins were exported from the Communist bloc in sufficient volume to cover Japan's import needs. In 1955 pulp requirements could barely have been covered as well. Thus in 1955 in the case of only 6 of the 17 commodities (coal, timber, soybeans, oil seeds, hides and skins, and pulp) was the bloc exporting sufficient quantities to meet Japan's import needs. These 6 commodities accounted for only 12 percent of Japan's total imports in 1955.

In the case of major imports such as cotton, rice, wool, wheat, oil, sugar, scrap iron, iron ore, rubber, and tin, the bloc seems to be incapable of meeting more than a small fraction of Japan's needs. Whether the bloc could furnish all of Japan's coal requirements, or would wish to do so, is not clear in view of the large Japanese imports relative to total bloc exports. Actually, it is unlikely that China will be able to meet even its own needs, let alone those of Japan; as for the rest of the bloc, it might conceivably wish to sell large quantities to Japan, but Poland, the major exporter, is already deeply and profitably committed to sending its coal to Western Europe. Thus it is actually unlikely that Japan could even secure its coal requirements from the bloc.

The 6 commodities—coal, timber, soybeans, hides and skins, pulp, and oil seeds—together in 1955 accounted for $306 million of Japan's imports. This is close to a maximum amount which Japan could hope to secure from the bloc under optimistic arrangements. Actually, because of existing bloc commitments, a more realistic estimate of imports from the bloc of the 6 commodities, plus some salt, would be about $250 million or approximately 10 percent of Japan's imports.

This judgment based on economic grounds must be qualified by a political "but." Communist countries often use trade arrangements as political weapons. Communist China must be presently importing substantial quantities of capital goods and heavy equipment from the Soviet Union, sending in exchange agricultural products and industrial raw materials. It is conceivable that in the future, either because of a desire on the part of Communist China to lessen its dependence on the Soviet Union, or in concert with the Soviet Union in an effort to pull Japan away from the West, China may shift a proportion of its capital goods purchases from the U. S. S. R. to Japan and pay with raw materials presently directed to the U. S. S. R. This would be basically a political decision. It cannot occur so long as Japan adheres to the COCOM restrictions, nor is there any present indication of a Chinese or Soviet effort along these lines.

Indicative of the pressure in Japan for more extensive trade with Communist Asia is the recent signing of an unofficial trade agreement between Japanese businessmen and North Vietnam. This is the sixth such agreement signed between the Japanese and Communist countries, including China and North Korea, with none of which Japan has diplomatic relations. While the Japanese Government has on the surface frowned on such pacts, it is unlikely that any trade could be carried on with these countries without the tacit approval of the Government. Because many of the items which Japanese businessmen promised to ship would violate the COCOM embargo, none of the agreements has been fully implemented. But they are useful to the Communists because they rouse the Japanese businessmen and increase the pressure on the Japanese Government and in turn upon the United States, to relax the trade restrictions. The trade agreements are drawn in such a way as to heighten the pressure. Trade items are divided into three categories. In one are placed those things that Japan wants most, such as coking coal and ores, and that she can get, it is claimed, less expensively from the Communist countries than from the West. To obtain items in this most wanted category, however, Japan is required to ship, in exchange, machinery, tools, and equipment, all of which are on the embargo list. Thus the pressure grows in Japan to relax the embargo and hypothetical trade totals are

[47] See Showdown in the Orient, by George Waldstein, Harvard Business Review, November–December 1954, pp. 113–120.

cited to indicate what Japan is losing in the way of prospective trade, by adhering to Western agreements.

The broad economic conclusion that suggests itself at this writing, however, is that, both in terms of capacity to absorb Japanese exports and more importantly in terms of ability to supply Japan's import needs, the Communist bloc has little to offer Japan. Any Japanese Government which weighed the present position of its trading relationships in the free world against a prospective or contemplated trading role as a member of the Communist bloc, could hardly escape the clear conclusion that, apart from ideological considerations, purely in the national self-interest, from an economic point of view, its future, indeed its economic survival, rests in maintaining and expanding present free world trade relationships. Obviously, Japanese strategy from this point on, however, is likely to be to try and see that they do not have to choose flatly between the Western World and the Communist bloc, but to attempt to maneuver to see if they cannot enjoy trading advantages with both.

Representative BOLLING. The final speaker this morning will also be known to most of those present. Prof. Willard L. Thorp of Amherst College has had a career of important public service. In addition to teaching, he has been an economist in business, and with the National Bureau of Economic Research. His long list of Government assignments includes top posts in the Department of Commerce and 6 years following World War II as Assistant Secretary of State for Economic Affairs. Today in addition to his post at Amherst he is the director of the Merrill Center for Economics. Dr. Thorp is going to speak to us on International Aspects of Economic Development.

STATEMENT OF WILLARD L. THORP, DEPARTMENT OF ECONOMICS, AMHERST COLLEGE

Dr. THORP. Mr. Chairman and members of the committee, this title permits me to talk about almost anything, and in view of Senator Flanders' interest, I think I will focus mostly on the relevant trade problems, if I may.

It is a bit unrealistic to talk about countries nowadays as though they were completely separate units. Certainly every country must give primary consideration to its economic life and program within its own boundaries. However, it is very clear that most countries in the world are unable to go very far alone.

Perhaps the United States and the Soviet Union are the two areas which come nearest to being self-sufficient. Other countries, because they lack certain necessary resources, or are so small that they cannot produce things which must be made on a large scale, or haven't yet developed the capacity to produce certain goods which at least theoretically they should be able to produce, find themselves dependent to a considerable degree on imports.

It is natural for us in the United States to emphasize the export side of things, but for most countries in the world the key foreign trade interest is imports. They need to have goods from abroad, either to maintain their workshop or to help in their economic development.

There are a number of different ways in which this trading process in the world can be organized. I suppose that if there has been any central core in American policy in recent years, it has been to encourage steps toward the development of world markets in which there are limited barriers, goods are available, and currencies are convertible. In such a world, goods would tend to be produced in the most

efficient place and sold where purchasers are prepared to offer the most purchasing power.

Obviously this program has had only partial success. We have come fairly close to de facto convertibility of currencies at times, if not de jure. We still have a great many barriers to trade, and yet I think if one looks at the world one would have to recognize that today goods tended to flow in considerable measure according to these broader economic criteria.

Having said this, I must immediately note that, within the total world picture, there are very decided limitations on world markets.

First are the number of situations in which trade is permitted only according to bilateral arrangements. This, for example, is the Soviet pattern.

I remember once arguing with the Russian delegate in the Economic and Social Council at the U. N. He said this was the fairest way because the two countries were each dealing with each other, and therefore it was equality. This never seemed quite clear to me, since countries are of different sizes and different degrees of pressure. But their policy has been, by and large, to arrange trade on a strictly bilateral, virtually a bartering, basis.

But in between the concept of world markets and the narrow bilateral procedure, there have developed certain regional arrangements. I think it is important that these be given special consideration in the record today.

The most effective regional arrangment, from the point of view of an autarky, is that of the Communist countries. The countries which are now in the Communist bloc used to do something like 25 percent of their trade with each other, and they now do 80 percent of their trade within the bloc.

This has been a matter of deliberate policy. In part it was because of their preoccupation with security and the consequent feeling that they must be self-sufficient and not in any way dependent upon any other areas. It was in part because planners don't like to have a situation in which there is an open end depending upon someone outside their orbit. If you can make a plan with other planners, this would appear to be a better way of dealing with the situation. It was clearly the Russia belief that the political integration sought in this region would be strengthened by economic integration.

It is significant that several months ago there was a newspaper story that the Soviet Union had offered to buy all of the Polish coal for the next year. It is true that the Soviet Union is having some difficulties in meeting its own coal requirements from all I can gather, but I suspect that the small amount, the small tonnage, which this transaction would have involved was mostly for the purpose of reducing the amount of freedom which Poland had in its economic relations with other countries.

This autarkic bloc has been able to function with a limited amount of import from outside. It has had to bring in rubber and wool and tin, just as we have to in the United States. This is one extreme, in a sense, of how trading can be organized.

There are some signs that the bloc is now using the trade process to establish greater relationships outside of the Communist grouping. In the last 3 years there have been a good many negotiations with other countries supported in some cases by extensions of credit. In a

few cases, such as Afghanistan and Burma, has become important enough to be dangerous from the point of view of leverage on these countries. In most other situations, including the Indian one, it is very small in terms of India's total foreign trade. Furthermore, one must remember that credits cannot be set against any single year, but are likely to be spread over several years in their actual impact on trade.

But this new trade offensive does mean that technicians and machinery of the Soviet type will have access to other countries. These programs may have great political impact in that those people in the country who have some tendency toward urging closer relationships with the Communist group will have something to point to as distinct from the aid that has been received from the Western countires. It is an interesting conclusion that autarky may strengthen internal solidiarity, but it also reduce the use of economic foreign policy to strengthen foreign relationships.

There is a second political and economic grouping within the world which has lasted for a long time. That is the sterling area. This is quite a different sort of thing. So for as trade is concerned, it was integrated somewhat, at least the British Empire part of it, by tariff preferences which were set up about 30 years ago. In recent years it has been tied together mostly by the fact that because there was a central holding of reserves, there was really a convertibility among the members of the sterling area, making possible a sort of a clearing arrangement through London.

The sterling area operation involves no planning, except in terms of total levels of trade up and down such as may be required to protect the reserves of the total area. As such, it provides inducements for its members to trade with each other, but sets up no absolute barriers.

More recently, we have seen a significant regional development in Western Europe. This was encouraged by the United States Government. In the early days of the Marshall plan, there was a procedure called conditional aid, which meant we gave assistance to country A if it would spend it in country B; and then country B, receiving those dollars, in turn would get aid from the United States.

This then moved on into the European Payments Union with American dollar backing, and a procedure for general clearing and credits among the Western European countries developed. They reduced quotas more or less in parallel, and their trade with each other expanded as compared with their trade outside. This procedure would largely lose its value if convertibility became more general.

Recently there has been the suggestion, which seems to be meeting a good deal of support in Europe, of the establishment of what is called a common market. This is not a customs union. This doesn't mean that there would be the same tariff rates around all the countries. But as to their trade with each other, there would be no quotas and there would be no tariff barriers.

The common market is to be achieved over 10 years. If the British have their way, and I suspect they will because this is not out of line with the thinking of many other countries, agricultural products, food and feedstuffs, tobacco and liquid products that are potable, would still be permitted to have tariff protection.

It is worth noting that, while the elimination of quotas is not very important because the remaining quotas are mostly on the agricultural items, the elimination of tariffs would permit a producer in any one of these countries to think of the total area as his market.

It is also worth noting that if this common market develops, it will not affect the agricultural picture. It of course will not add to the supply of raw materials which the area needs to get from outside. Its impact would be largely on the manufacturing and industrial efficiency of the area, providing both the benefits of scale and the stimulus of an increased amount of competition.

This is important. It would mean that the development of productivity in the area would be continued, and it should mean a more efficient use of such resources as they have. However, it is important to realize that, unless they increase their tariffs against outside countries, this does not create any strong tendency to autarky. This leaves them still with substantial dependence on the rest of the world for a great many items.

When we talk about developing some sort of a trading region for Asia and the Far East, we have to remember that this is an area in which there is only one really industrial country, namely, Japan, and a lot of other quite underdeveloped countries.

I think it is true, as Professor Cohen said, that Japan has a great awareness of the possibility of expanding its trade with Asia and the Far East. This is natural. An Asian Empire, the so-called co-prosperity sphere, was the dream of the Japanese Empire. It was the way in which they hoped to meet their great population pressure and limited resources of raw materials.

Asia for the Asian economies is still a very live idea in the thinking of Japanese planners and foreign-policy people. A year ago I was in Japan, and I was amazed to find that most of the people interested in this field, in the government and outside, were more interested in talking with me about the prospects of trade with Asia than they were about the situation in the United States.

This seemed to them still to be an area with which they had high hopes, of developing trade and investment, and yet they couldn't find much that they could do about it. They were hoping that the United States might somehow wave a wand in create an Asian area in which Japan would be the central industrial nation.

There are many difficulties in their way and Dr. Cohen has already outlined them to you: The reparations difficulties; the dim prospect for any substantial trade with China; the barrier to trade with Korea at the present time. Korea used to be an important market, perhaps 15 percent of their trade. At the present time Japanese-Korean trade is quite inactive due, so the Japanese say, to Korean policy.

Japan is developing a number of projects with the rest of Asia, and they may be indicative of more to come. These range all the way from a 7-man Japanese team which went to Cambodia to advise them on how to set up a tourist industry, in which the Japanese are rather skilled, to planning a powerplant for Southern Vietnam, and to having an arrangement with India in which they exchange iron ore for locomotives.

However, there is no real regional development. To be sure, there is the Colombo plan, but this isn't a plan in the sense that the European Payments Union represented an interlocking program. It is

a central place where representatives of various countries get together and discuss their mutual problems. It does some distributing of technical assistance. It has some limited funds. But as yet, one sees very little impact of this on expanding introregional trade in the Asian area. However, given the differing nature of the various economies, it seems inevitable that more exchange will take place among them.

In thinking about economic development, we have tended to think largely in terms of capital and technical assistance and not enough about the much greater magnitudes involved in trade. As to what actually can be done through trade, I think it is important to have in mind that the underdeveloped countries are largely suppliers of new materials, and the people who have studied world-trade tendencies are inclined to conclude that the nonindustrial countries are losing ground. The countries which supply raw materials, at least in recent years, have not been holding their own in total world trade as against the development of exchanges among industrial countries.

This is partly because the industrial areas themselves are becoming suppliers of raw materials and fuels. I don't think we think of ourselves as a raw material supplying country, but we are. The amount of petroleum, coal, cotton, and wheat which we send abroad is a major part of the world supply. The United States, while it may think of itself as an industrial country, is to a very large degree a raw material supplying country.

Then as far as Asia is concerned, the development of substitutes has had a drastic effect on its trade prospects. Silk is no longer very important. We have a very good substitute for rubber. Even tin is giving way in many uses to aluminum.

And there is one other thing that is interesting to have in mind if one is looking for general trends, and that is the decline in textiles, percentagewise, as far as the world is concerned. Textiles have a high percentage of raw materials in them, and more and more textiles are now being produced within the country where they are consumed.

Actually, the world trade pattern as it now stands has only about 10 percent of trade from nonindustrial countries to other nonindustrial countries. After all, they don't have very much to sell to each other except to equalize out the supplies of food.

The industrial countries, on the other hand, carry on four times as much trade with each other.

The question, then, of what could be done through trade seems to me to get back to a problem of the extent to which the need for imports which these countries have can be satisfied; it is doubtful, in my mind, whether or not one can anticipate their ability to pay in terms of exports which they can produce.

We can see the conflict very easily in the United States.

Don Humphrey has estimated that 70 percent of America's imports are things which we have to import. These are tropical, agricultural products, and raw and semiprocessed materials. We allow these things to come in usually without any interferences, without tariffs on them. Only 30 percent of our imports represent things which in any sense can be thought of as competitive.

Presumably, we are already getting what we need in the raw materials field, and yet there is a substantial demand for American

goods. They are needed by the underdeveloped countries for their economic development. In the case of Japan, we are important as a supplier to them of food and raw materials.

It should be possible over time for the world's trade pattern to be altered so that other industrial countries will supply more of the needed industrial products and other countries will supply more of the raw materials now coming from the United States. So far as the United States is concerned, this would mean that we would come into balance by reduced exports of items like rice, wheat, and cotton and even of capital goods. The alternative route is for us to continue to supply export items on the basis of admitting competitive imports or of extending credits or grants. May I suggest that none of these routes represents a complete solution, nor are they incompatible. For the immediate future, our policy should involve both trade and aid.

Representative BOLLING. Dr. Thorp, I think I will have to interrupt you at that point. Senator Cooper has to leave in a few minutes, and I know Senator Flanders has some questions he would like to ask him.

Senator, I know you have a very few minutes left, but if you will rejoin the panel, I will entertain the questions that Senator Flanders has particularly to direct to you.

Excuse me.

Dr. THORP. It is all right. I am about done, anyway.

Senator FLANDERS. Senator Cooper, you do not mind my calling you by that title?

Senator COOPER. No; I am perfectly willing.

Senator FLANDERS. It is a prospective title about which I think there is now no question.

As you know, I have been very much interested in the first and second 5-year plans in India. I do not remember whether I have sent you copies of any of my correspondence with our friend, Dr. Katsu. Have I done so?

Senator COOPER. Not recently.

Senator FLANDERS. I felt that the first 5-year plan was well directed and well carried out. I began to be a little dubious about the second 5-year plan, and still more so about suggestions as to the third 5-year plan that I got from the economic sources here in the Indian Embassy. Of course, those are not set yet, but the main point seemed to me to be that any 5-year plan India or any other country, any forward plans of any sort of our own and current policy should be directed toward the well-being of the citizen except as military requirements intervene. There are only those two proper objectives of governmental policy: the well-being of the citizen and the military defense requirements, whatever they may be.

Well, I was just a bit worried about the second 5-year plan, as to whether it had been traced down through to the food, clothing, shelter, and education of the individual Indian. I am not sure, I was not sure that the connection had been made, and that is the objective, because India is not arming.

Have you had any discussions or any light on that question?

Senator COOPER. Yes; I have. And I have also studied, of course, the percentages of the proposed development as applied to various objects. Also, I have studied the announced objectives of India's so-called socialistic pattern of society, which they distinguish from socialism.

As I indicated in my statement, the amount of money which is being applied to heavy industry in the second 5-year plan is the largest percentage of the total amount to be expended.

During the first 5-year plan, the percentage of the total outlay for agriculture and community development was 13.7 percent.

During the second 5-year plan, it is estimated at 11.8 percent.

Of course, there is a larger expenditure, and the total expenditure is greater.

For irrigation and power, the first 5-year plan provided 31.5 percent; the second 5-year plan, 19 percent.

For transportation-communications, the first 5-year plan was 26.1 and the second 5-year plan, 28.9 percent.

That does bear upon the problem of being able to balance their economy because of the necessity for transportation of goods and food to various parts of the Republic.

Social services, in the first 5-year plan, took 21.9 percent. In the second 5-year plan, 19.7 percent.

This is the point to which you may be referring. Industries and mining, in the first 5-year plan, came to 3.8 percent, and in the second 5-year plan it rose to 18.5 percent. But it is only 18.5 percent of the total, and not all of that is in large industry. A very great part of it is in small industry.

Those are just figures. But then I said something about the objectives of the plan, the major objective of which is to raise the gross national product, to supply the people, to increase the average earnings of the individual from about $55 a year to $66 a year, to increase the consumption of the individual by 12 to 20 percent, from about 1,900 calories, currently.

So I think if you would ask the Indian Government or those who are working on this plan, they would emphasize that its purpose is still moving it toward an increase in living standards.

Now, maybe they have reached a place where it is necessary to build a certain amount of heavy industry, to expand steel production, for example, from about 1,200,000 tons to 4½ million tons; to expand cement production to build a tile industry which can supply other industry, if they are to make any progress at all, if they are to go forward at all.

I think another point which has to be kept in mind is that one purpose of this second 5-year plan is to actually give employment to the new labor force which they estimate at about 8 million people. They would claim themselves—as they have stated—that the basic criterion for determining the lines of advance is social gain.

The real problem about the plan, as I see it, is whether or not it may be too ambitious, and whether or not they will be able to carry it out in 5 years.

If they cannot secure the foreign exchange, then whatever they do internally they cannot supply the tools and the capital goods which will make their internal expenditures effective. That would mean either that the plan would be extended for another year or several years, or in fact it might mean the actual stopping of some projects that have already gotten under way.

Senator FLANDERS. I might say one of the things that bothered me was the emphasis on millions of tons of steel, and I was afraid that they had been contaminated by the statistical achievements of

Chinese and Russian communism, which measures their industrial advance in tons of steel instead of in the well-being of the people.

Senator COOPER. I think the committee will have to compare the objectives and the percentages of development in, for example, China, with what is being done in India. I can only say, again, that they are not using forced saving, they are not keeping down the consumption of the people. They are trying to increase the consumption of the people.

They are trying to provide additional cloth for the people for clothes. The two main needs are food and cloth.

They are not using the methods that were used in China and in Russia. The real problem, I think, is whether or not they will have the ability to carry out this plan.

As to their objectives, I don't think that they are what you suspect. I don't say "what you suspect"; what you intimated by your questioning.

Senator FLANDERS. I am only questioning whether they have carried through tons of steel to the individual well-being of the individual citizen. The pertinence of this to our study, as I see it, Mr. Chairman, is that the Indians are going to feel that we need to help them finance this second 5-year plan. That is why it comes within the purview of the work of our committee.

Senator COOPER. I did not talk about that at all, because I did not think that was the problem you wanted.

Senator FLANDERS. You do not need to.

Senator COOPER. I was talking about the problem of the plan itself.

Representative BOLLING. We understand you must leave, and I do not want to delay you.

Thank you very much.

Senator COOPER. I will leave it now to the real economists.

Representative BOLLING. Dr. Thorp, I apologize for the interruption, but the exigencies of the situation required it.

Dr. THORP. I think I would rather not pick up the discussion at this point, because I am sure if there are further points that I want to make, I will have a chance to do so.

Representative BOLLING. You will have one right now, because I will ask the panel if any of the things that other members of the panel have said cause them to desire to make any further comments at this point.

If not, Senator Flanders, will you ask any questions you desire?

Senator FLANDERS. I noted that Dr. Eckstein, on page 5, in connection with his analysis of Communist China, the first paragraph beginning on that page, does raise the question of consumption as being a criterion. That, plus military and war-waging potential, are the two economic end products of a country's activity. I am interested to see that so far as Communist China is concerned, that analysis of the consumption, which seems to bring evidence that the military and war-waging potential plays, as it does in the Soviet Government, a large part of the purpose of the economy.

Now, on page 9—I did not ask a question, did I? I made a statement. That is what Senators, as distinguished from Representatives, are inclined to do.

Representative BOLLING. This is a distinction that does not always hold up.

Senator FLANDERS. On page 9, a little way down in the paragraph which begins on that page:

> However, on the basis of all the available evidence, the preponderant bulk of these imports seems to be paid for with Chinese exports.

I am wondering what large-scale exports can be made from China that are not taken out of the skins of the Chinese people.

Dr. ECKSTEIN. Senator, I think the points you pointed up are among the most essential which need to be made. There is no question that the whole policy and the whole program, the whole goal of the Chinese Communists' 5-year plan is very different from that of India, and it is, of course, very true that one of the keys in this program is to extract, to obtain as high a rate of extraction from agriculture in the form of taxation, in the form of manipulating the price relations or the parity position, if you like, of agriculture, in such a way that it is unfavorable to agriculture.

Through these various devices, the rate of extraction from agriculture is, of course, very high, and some of this or a certain proportion of this goes into exports. The bulk of Chinese exports are agricultural exports.

However, much of these are exports that always used to be Chinese exports products, such as soybeans, for instance. Then, too, varying other types of comparatively minor products, such as tea, for instance, play a certain importance in the trade with the Soviet Union.

Relatively small proportion of the large staples, such as rice or wheat, which are the major food staples of the peasantry, go into exports.

But it is doubtless true, at least as far as we know, that the bulk of the saving, the bulk of the capital mobilized in the Chinese economy, is mobilized out of agriculture, and that some of this takes the form of exports in order to import capital goods.

So, in effect, you have a mechanism through which savings out of agriculture, forced savings, are transformed into capital development through the mechanism of exports of agricultural goods for imports of capital.

Senator FLANDERS. Would you consider that China is now a self-sufficient area in food supply?

Dr. ECKSTEIN. While China used to import a certain amount of foodstuffs even before the war, the bulk of her exports were also farm products. The imports were mostly to a few port cities, particularly Shanghai, and were to a large extent a function of very poor internal communications; for instance, it was cheaper to import wheat to Shanghai from the United States than it was to import wheat from the countryside of China itself.

This situation has radically altered now with the administrative and political unification of the country, with absence of civil war and with the transportation system more or less rehabilitated.

So that one could say that China has always been more or less self-sufficient in food. The margin of exports and imports was always very small in relation to total production, and for the food staples this is still the case even today.

Senator FLANDERS. As I get it, then, you feel that with good transportation, China can be self-sufficient in foods and still have a surplus of various agricultural commodities to export?

Dr. ECKSTEIN. Certain things, such as soybeans, tea, a series of so-called native products, certain livestock products.

This isn't a function of the fact that the Chinese peasant is so well off. It is a function of the fact that the Chinese have to export in order to be able to import.

Senator FLANDERS. I was just asking whether it came out of the skins of the Chinese citizens.

Dr. ECKSTEIN. Yes, I think to some extent, or to a large extent, that is true. But even in the absence of a Chinese Communist regime, some of this trade would take place, although perhaps not at the same level.

Senator FLANDERS. Yes.

That covers the points that I wished to ask Dr. Eckstein.

I was particularly interested in the available exports from China, from the standpoint of what would happen if freedom of trade would develop between Japan and China, for instance. If she was willing to let coal and iron ore go in Manchuria, of course, and accept manufactured goods, there would be a lively trade between Manchuria and Japan. Manchuria was a food surplus area before the war.

Dr. ECKSTEIN. Much of these exports, even now, come from Manchuria. Soybeans, for instance, are mostly from Manchuria.

Senator FLANDERS. Now, I would like to ask a question or two of Dr. Cohen.

First let me say that—I might as well say it now—in connection with your use of the word "autarky," I want everyone who has a copy of my memorandum of November 14 to replace "ch" with "k" wherever you find it. There is a vast difference in the definitions of those words. Someone in my office thought "k" was a mistake, but it wasn't, when I handed down the manuscript.

Dr. THORP. I have had the same struggle with a secretary for some time.

Senator FLANDERS. Turning to page 30—I have to turn quite a ways to get to page 30, but I finally arrived at that.

A larger number of pages as full of meat as your 37 pages are, is seldom offered to the committee.

Dr. COHEN. Thank you, sir.

Senator FLANDERS. Thirty-seven pages are a good record.

Under page 30, the bottom paragraph, I wonder why there should not be a lively export between Japan and Indonesia. Why should there not be a lively export of petroleum products and rubber? They have fallen to about one-half.

Dr. COHEN. I would say that basically a broad, overall reason is that the income level of the average Indonesian is so low. let's say about $40 to $45 per year per capita, that there is just no mass civilian purchasing power to take the products that Japan sells, other than textiles.

The individual peasants can't even buy a cheap radio. Perhaps the village can, but the individual can't.

Senator FLANDERS. So it is due to the lack of purchasing power in Indonesia, rather than the needs of Japan; is that what you are saying?

Dr. COHEN. Yes, in part.

Senator FLANDERS. You say:

Indonesia's inability to pay, either in goods or foreign exchange, caused Japan to reduce the exports.

That brings me down to No. 9 in my memorandum, which relates to the Greater East Asia Co-Prosperity Sphere, which was, it seemed to me, an economically sound idea. The accomplishing of it by military means was a disaster. And I have to bring Dr. Thorp into this discussion. He seemed to think that there was nothing much we could do about that.

I wonder if that is true. Something, I think, has to be done, because we are not going to allow continuously certain important industries in this country to be undermined by Japanese imports. We are just not going to allow it to be done. So we have to find some substitute and put in some thought and some work, and perhaps some financing into it.

It seems to me, as I said here, that if you could take the whole area of eastern and southern Asia from Pakistan to Japan, you could build up an integrated economy that would solve a number of problems.

I might just mention one of them, and that is that the Japanese are unacceptable as merchants, practically anywhere in the world. On the other hand, the Indians are fairly acceptable. They are not quite as adept as the Chinese; yet the Indian merchants throughout the whole Asian, the Pacific area and the Asian area, do fairly well.

When I suggested here that the free nations in this area largely supplement and complement each other economically, and can move forward in cooperation rather than in competition, it seems to me that one of the resources that India has to bring to that is a commercial ability and a commercial acceptability which might help to move products more freely between the countries involved.

There must be some way found to make Japan economically viable, and to increase India's range of exports and imports, without doing it at the expense of American industry.

That is at least my conviction, and I am wondering whether we are helpless in the matter and whether the whole thing must be left to decay on the vine.

I ask the same question of you two men.

Dr. THORP. I will take it first, and then Dr. Cohen will probably give you a fuller answer.

What I intended to say was that I was bothered by the degree to which the Japanese were, in a sense, hoping that we would be able to resolve this problem for them. I didn't mean to say that there weren't things which we could do, nor to say that this isn't a regional trade development which has real possibilities.

I did mean to suggest that it would take some time to bring it about.

I think we have already taken some steps. For example, we have tried to get trade barriers down in all countries against Japanese goods by supporting the entrance of Japan into GATT. I was our representative in GATT when this proposal first came up, and it took several years of continual argument on our part before any considerable number of the nations were willing to accept their admittance.

But this was to open up all markets to the Japanese. It didn't focus exclusively on the coprosperity sphere, although many of those countries were included, and India was one of the countries that went along with respect to the program.

There have been a number of suggestions for stimulating Asian trade which haven't developed, but which I think are possible, in terms of some sort of triangular arrangement whereby, let us say, the United States might finance a development of iron mines in some Asian country, with the expectation that this would provide iron ore that would eventually go to Japan.

There is also the possibility that we might make funds available to Japan for her to extend credit in terms of developing industries in the Asian area.

I think if we are prepared to use credit facilities, and not tie them exclusively to American goods, such a triangular arrangement is a possibility. One of our difficulties is that the Export-Import Bank must extend credit when it will directly facilitate American trade.

Senator FLANDERS. If you will excuse me a minute, there is a question I wanted to ask Senator Cooper, and you may be able to answer it.

What happened to the financing of Tata, which fell between two schools when I was in India, the one being the Export-Import Bank, to use American equipment which would cost a lot more, and the other was the unwillingness of the Tata Iron Works to work through the World Bank.

What was the situation there?

Dr. THORP. I believe the World Bank has finally worked out an arrangement with them to provide this development. But I think it is also true that the long delay there was in getting assistance from either private or public sources in this country, had something to do with the Indians searching in other directions.

We came along rather late in the procession rather than early in it. It might have been a rather different picture if we had been in it at an earlier point.

Senator FLANDERS. I am afraid I interrupted. You were talking about a triangular arrangement.

Dr. THORP. Yes.

If it were a development of iron mines in an area, if our credit for that could be related to the purchase of the necessary equipment from Japan, then this would start a relationship within the area which might be useful. But at the present time we would require that American equipment be sent, and therefore Japan would only hope to get byproduct benefits from it when the final product was available.

I think there are things of that sort that could be done that would help in the development of the area, and Japan is a natural market for raw materials that are produced there.

I should also hope that we will continue to give support to the Colombo plan.

Senator FLANDERS. What do you think the chances are of getting the Congress to agree to this kind of a solution of the Japanese problem which does not seem immediately to advantage the United States, but is it a long-range advantage?

Dr. THORP. You can set this problem up in terms of advantage to the United States. In other words, somehow we must make Japan viable without being dependent upon us. I should think some Members of the Congress might be rather sympathetic to that objective.

Senator FLANDERS. That is the argument.

Dr. THORP. Yes.

Senator FLANDERS. That is the argument to use.

Will someone—Dr. Cohen, will you tell me what a hectare is? I do not have my conversion table handy.

Dr. COHEN. 2.45 acres.

Dr. ECKSTEIN. Almost 2½ acres.

Senator FLANDERS. Almost 2½ acres to a hectare. All right, thank you.

I still do not see, Dr. Cohen, why the trade between Japan and Indonesia should not be lively, since Japan needs rubber and oil. Does that mean that the sums which Japan or any other country pays for rubber and oil do not stay in Indonesia?

Dr. COHEN. I am not an expert on the Indonesian economy. Most of the Indonesian oil which is extracted by foreign companies goes to Western Europe, it doesn't go to Japan. The oil which goes to Japan is largely dollar oil which American companies send to Japan.

You will have to look very thoroughly into the question of international cartels and arrangements in the oil industry to explain why Indonesian oil should go mainly to Western Europe and Arabian oil should come to Japan, but that is the way it is; I believe that is the way it works.

Senator FLANDERS. That is an interesting sidelight.

I just want to say that I had an article in the Atlantic Monthly in September of 1931, 25 years ago, and I didn't use that word "autarky." I used "natural economic empires." I think perhaps that is a better phrase, particularly in view of the misspelling.

And the suggestion is made that the Indonesians need capital goods according to their plan of development, and Japan is able to supply them. It seems too bad that they cannot find a natural exchange between goods that are so much needed in both places.

Dr. COHEN. There is another factor that ought to be mentioned, and Professor Thorp suggests it. There has been no reparations settlement between Indonesia and Japan. Under these circumstances, Japan is reluctant to grant credits. Indonesia needs long-term credits to buy the goods which Japan can supply.

The Japanese are quite worried that any credits that are tied up in Indonesia may be seized by the Indonesians as part and parcel of a reparations settlement, so credit facilities between the two countries are difficult.

Senator FLANDERS. That is a case in point.

Now, I would like to make one more short speech.

Representative BOLLING. Proceed, sir.

Senator FLANDERS. I would like to tell Dr. Thorp the reasons for my doubt about going further with the established trade policy of this and the previous administration without further illumination, and I want to suggest that after I have made the statement of my reasons, that if he would be willing to reply to them, preferably by a brief manuscript, and have them incorporated in the record, it might not do any good to anybody else, but it might do me some good.

Representative BOLLING. I am sure it might do us all some good if Dr. Thorp would do this.

Senator FLANDERS. All right.

This memorandum results from a growing concern with our trade policy, and has developed from what seemed to me to be three changes in world trade which are not taken into account in the policies for freer trade or virtually free trade.

The first change is that for that policy, that theory, to be valid, it has to assume a peaceful world, which no longer exists. That is item No. 1.

Item No. 2 is that it is supposed that the dollar, for instance, with which we buy foreign goods, has no value except as it is returned to us in the purchase of American goods. I would like to inquire whether that still holds good, in view of the fact that dollar balances are so tremendously desirable that every effort is made to hold the dollars and keep them from coming back to us. It seems to me that represents a change in conditions.

And the third change is that American industry has now and is now developing into the sort in which a comparatively free export of American capital and a comparatively free export of American know-how can make use of low-income labor without special training. And, as we know, there is a great movement of American industry into other areas of the world, and it seems to me that poses a problem and raises a question, which I think—yes, that is No. 3 here—as to just what industries would survive under free conditions.

I suggest the products of our expensive agriculture would survive if we were willing to put them into free competition, which at present we are not.

And there are other questions raised, also, which I hope you will touch on, and I raised them at a round table last year in an introductory way.

Supposing a great part of our production here could be more efficiently produced abroad? Is there any effective balance that comes into operation in connection with inflation, deflation, and the rates of convertibility? And, if so, what effect does that correction in the value of international funds and exchange have on our economy and the prosperity of our people?

I think there is an area there which would be useful to have incorporated in our report. So I nominate Willard Thorp or any of the others who wish to dip into that. Why not have this a free-for-all? Anybody can get in. Not "or" but "and."

That is the end of what I had in mind, Mr. Chairman.

Representative BOLLING. Thank you, Senator Flanders. I hope, Dr. Thorp, you will be able to respond.

Dr. THORP. I have never been able to refuse any request from Senator Flanders. I will be glad to try it.

(The information referred to follows:)

MEMORANDUM SUPPLIED BY WILLARD L. THORP TO THE JOINT ECONOMIC COMMITTEE IN RESPONSE TO THREE QUESTIONS BY SENATOR FLANDERS

1. How should trade policy be altered in the light of the importance of security objectives today?

Security considerations place emphasis on two aspects of trade policy. The first relates to the mobilization base and the second to our relationship with our allies.

There can be no argument as to the necessity of being prepared for war. This includes not only an adequate defense establishment but an economy able to meet the requirements of war. The first question obviously is that of the kind of war envisaged. If it is an atomic war, then the only thing that counts is immediate offensive and defensive capability. Only if it is to be the kind of war of attrition with which we are unfortunately familiar will economic capacity have any important significance. In that case, the most critical area would seem to be that of foreign supplies. For this purpose, probably the most im-

portant requirement is an adequate stockpile program. To the extent that there are essential and strategic domestic industries which are endangered by foreign competition, and under any rigorous test this would be an extremely short list, we should not rely on the inexact instruments of protection. These give no assurance that we will have the kind, amount, and location of capacity which is essential. Other means, such as Government contracts or Government rather than consumer subsidies, can be used to achieve such a result with certainty, and certainty is what one desires. Actually, most industries which are important for security purposes are the very ones in which we excel.

But modern security involves the strength of the entire free world. Restrictive trade policy will almost inevitably injure one or another of our allies and our relationship with them. If security is to be achieved by a cooperative effort, the same atmosphere must pervade trade relationships. And if we are concerned about the economic strength of our allies, we must remember that they are much more dependent upon foreign trade than we are, and that measures which interfere with their ability to earn foreign exchange can seriously impair their economic capabilities. We have recognized this in our assistance programs by including certain economic requirements in our calculations of contributions to and allocations for mutual security. The considerations which were so clear in the Iceland fish fillet case are present in less sharp outline in all proposals for trade restriction whenever the proposed barriers are to be raised against one of our allies.

The Communist bloc has a central planning agency which arranges trade patterns among its members. The free world has no such centralized direction, and the danger is that each member will view its prospective foreign economic policy actions in domestic terms and not in terms of the total impact upon the free world. Trade barriers tend to be established strictly for domestic considerations, and these are often quite limited in scope. The appropriate policy for maximum security purposes would seem to be one which was based not upon national programs of protection but upon the most efficient use of resources through the ready access to goods and to markets within the free world, and one which strengthens the feeling of cooperation and mutual interest internationally.

2. Is the theory that increased imports will lead to increased exports disproved by the present accumulation of dollar balances abroad?

The balance of payments for any country involves its trade in commodities; trade in current invisible items, such as travel, shipping, interest payments, and the like; and capital transfers. Thus, if more funds become available to a foreign country it may use them for any of these purposes.

During the prewar and war years the gold and dollar balances of the European countries were greatly reduced and American reserves increased. Because of the shortage of reserves, currencies have had to be specially protected. One of the hopes for improving the functioning of the world economy is for currencies once again to be convertible. The importance of convertibility is that it permits multilateral trade through a kind of overall clearing of accounts. At first, the postwar shortages were so extreme that all available funds had to be used at once for the import of goods. Once this stringency was passed, the importance of building up reserves was recognized, and efforts have been made in that direction. To that extent, it is true that dollar earnings have not been completely reflected in increased American exports. The additional dollars placed by the United States in the International Monetary Fund are also a kind of reserve available to members to meet temporary balance of payment difficulties.

In a sense, this situation is caused by the fact that existing reserves were exhausted in purchasing American goods during the thirties and forties. It is important that reserve positions be reestablished to permit convertibility again. Although various countries are restricting the demand for American goods in order to protect and build reserves, this is not a policy without end, nor one which can be very large in relation to total trade. It would be economically unwise for them to build up reserves, which are essentially nonproductive, beyond the point where they are adequate.

In the world today, the great worry of most countries is their requirement for payment to the dollar countries. Their supply of dollars is dependent upon American prosperity, our military spending abroad, and economic-assistance programs. In fact, reserves today are thought of in foreign countries as being accumulated for use in payment to the United States in case some one or more of these or other sources of current funds should be reduced. The reserves thus

might actually serve as something like a stabilization fund, in case the American economy should repeat recessive patterns such as those of 1949 or 1954.

3. What would happen if a great part of our production could be more efficiently produced abroad in terms of balancing forces and their impact on our economy and the prosperity of our people?

One implication of the assumptions of the question has to do with the impact of the rise in productivity on the other economies. Incomes are the reflection of productivity and therefore one should expect a rapid rise in individual incomes and national incomes. The greatest volume of foreign trade is carried on between the countries where incomes are highest. While it might be expected that this tremendous increase in markets might be captured in large part by these new producers, the result might not be a loss but even an increase in American exports.

A second impact on trade from these assumed conditions arises from the fact that real costs of production are not only dependent upon technology, but will vary according to the availability of the factors of production—resources, labor, capital, etc. Since we do not have mobility of these factors, the efficiency of various economies in producing particular products will depend upon the proportions of the factors required in the products. Thus products requiring large capital investment may be low cost in the United States while labor-intensive products may be low cost in other countries, even assuming that the same technology is used in both places. When the difference in resources is taken into account, it is clear that a basis for trade will exist, even with universal technological equality (though this itself is an extreme assumption).

If the question disregards these considerations and is taken simply to mean that our exports would fall and our imports would rise under these new circumstances, the first result would be a tendency for gold or dollars to go abroad, or for foreign accounts to build up in our banks. The converse would happen in foreign countries. As a result, foreign price levels might rise compared with the American price level, thus tending to discourage imports to the United States and encourage our exports until a new balance is reached. Another equilibrating force would be that increased incomes abroad would encourage foreign buying while the reduction in our exports, by reducing incomes at home, would reduce the demand for imports. Furthermore, the tightening of credit in this country relative to other money markets, might induce a flow of capital to this country and reduce the attractiveness of foreign investments or foreign bank deposits by Americans. In other words, through various balancing factors such as those indicated, there would be a tendency for exports and imports (in total balance of payments terms) to come into a balanced relationship. This balance might well be at a higher level of trade than at present. It probably would require some structural changes and consequent expanded foreign markets for some American industries and increased foreign competition in the case of others.

At least two additional elements in the problem need to be noted. First, the impact of foreign trade on the American economy is so small that the adjusting forces might work rather more at the other end than here. Forces of inflation in the foreign country might actually be the controlling ones. Secondly, with present-day political insistence on the maintenance of employment, no one can forecast the degree to which the basic policy of domestic stabilization will override the balancing of foreign payments by the monetary-income forces.

As to the basic situation forecast, the immediate impact of increased efficiency in other countries would not be so much an invasion of the American market as a more vigorous competition in third markets, and an improvement in the economic position of Western Europe and Japan.

However, at the same time, we should not assume that the United States will be standing still. In fact, the new situation might have real value for us. Our own productivity is not entirely the result of our own inventiveness and skill. If we have a rapidly expanding world, with many people in many countries active in improving processes, our own productivity is certain to benefit.

Representative BOLLING. As the Senator said, if the spirit moves any of the others of you, we would be delighted to receive your comments.

I would like right now to have Dr. Thorp or some of the other members of the panel comment on the 11th question of Senator Flanders: Why not adopt the slogan, "Aid, not trade"?

Dr. THORP. I think that question is basic, the answer starts with the fact that we probably don't need as much in the way of imports as other countries would like to have of American goods. Perhaps one could even say, they need, if one recognizes economic development as a part of the requirements of the world at the present time.

And, given this situation, if we hope to make progress in the free world, the problem is to support the flow of American goods. If one is thinking in terms of the other countries and the goods which they require, the key is whether or not they receive those goods or not. The question of trade or aid is then secondary.

I suppose most people who have argued for trade rather than aid have had two reasons for it. One is a feeling that it is not a healthy kind of relationship for one country to be the world's philanthropist, and other countries to be receiving assistance. And therefore, we want to get away, as far as we can, from the situation in which the United States is continually giving and the other countries were in a position of continually receiving.

The aid process includes psychological difficulties, and difficulties in international relations.

Senator FLANDERS. That is a perfectly proper observation.

Dr. THORP. I think the other reason is perhaps one that is more related to the fundamental approach of an economist, namely, that normal economic life involves being paid for what you provide, and that we ought to be able to be ingenious enough to figure out ways in which we can get something as a return for these things which we are giving; some things we clearly need because we cannot produce them. Other things we might benefit from by the principles of comparative advantage. It should be possible for us to get something in return for these goods which we send abroad.

In other words, one is sort of a psychological argument, and the other is the desire that there would be a payment, in the form of expanded trade.

I think it is amazing that our trade has expanded in the last decade to the degree to which it has with such a very small amount of difficulty. This difficulty is certainly intense at particular spots, but I suspect if one took the total billions of goods that have come in and tried to figure out how much of that actually was threatening American industry or particular industries, we would find that it is a rather limited total.

The questions are whether there is some way of modifying such disturbances as are created; whether our economy isn't, by and large, an economy that makes progress by being disturbed and by competition; whether we may not actually be carrying on inefficient operations, expensive operations, with protection as a form of subsidy. Perhaps we ought to find other ways of doing it if we are going to subsidize them, rather than put the burden on the consumer.

But I think these are the two general areas that I would suggest: One, the psychological one; and the other, the feeling that as an economy we should try to have resources coming in as an offset to whatever resources go out.

Representative BOLLING. Dr. Eckstein?

Dr. ECKSTEIN. I was just going to say something, but please proceed.

Representative BOLLING. Proceed.

Dr. ECKSTEIN. I very much agree with what Dr. Thorp has just said. I would like to underline 1 or 2 things which seem to me particularly important on the psychological and political side, that is, in terms of aid and what effects aid may have had in the underdeveloped countries.

And it seems to me it is important to make a distinction there between grants-in-aid and loans. I think, again, there is a very important psychological difference between the two. And if one compares this with what the Soviets are currently doing in these underdeveloped areas, it is particularly important, as I am sure Dr. Aubrey will agree.

You have a situation where our aid programs are particularly of a character where we send ICA or ECA missions to countries, the countries have to present their programs to the missions, they have to justify these programs.

There is a great deal of back-and-forth about what are economically rational projects, and so on and so forth, which in some respects may seem to be a very good procedure to make sure that these funds are properly used, but politically and psychologically may be very disadvantageous because it creates tremendous frictions and frustrations. While if you give a loan, which has to be justified in terms of strictly rational economic criteria, it is a give-and-take proposition; you don't have the same kind of factors involved, it seems to me, that you have in the case of grants-in-aid, and this, of course, is even more true if you have trade and as part and parcel of trade you render some technical assistance.

So I would very strongly plead against future grants-in-aid funds for underdeveloped areas.

Representative BOLLING. I would like to throw in this question. I do not understand how, under this concept of loan, such things as roads, that are so necessary in the initial developmental stage in building up an industrial economy, could be taken care of. I do not think there is an economic way to make a loan on a road.

There are many other things that fall in this category. You know what I mean.

Dr. THORP. I don't completely agree on that. I think what you do then is make a loan to the government. This is a loan against the total economy which it uses for roads. On the theory which you suggest, a State government shouldn't borrow for a road, it is not productive, but it does against its general credit. Likewise, I would think that a foreign government could borrow on its general credit, so to speak.

Representative BOLLING. Let's take India, for example, trying very hard to squeeze out the $10 billion of Government funds over its next 5-year plan. Do you think that you could devise a loan which would be economically sound? I would be very pleased if you could.

Dr. THORP. I think the problem that is created by loans is the obvious one. You would have to set up a program of aid and future trade.

This is where you would come out.

Senator FLANDERS. May I say that that slogan "Aid, not trade," was put in there to be provocative.

Representative BOLLING. It succeeded.

Dr. Aubrey, you wanted to make a comment?

Dr. AUBREY. I wanted to make a brief remark with regard to Senator Flanders' profound question, which is very provocative, indeed. It is more an observation rather than attempting to answer it.

It is a queer situation, in a way, that the Russians have taken away what for a time was a western slogan, "Trade, not aid." And they are the ones that are now stressing their preference for trade because it made for more equal relations.

As a matter of fact, they almost present trade as if it were aid when they buy stuff which certain producing countries cannot sell otherwise.

One of the aspects of turning the thing around would be, then, this: Would there be a possibility—I am not saying it would be desirable or a necessary outcome—of a division of labor in the international scene in the way that the Russians would be doing more trade than aid, the way they are attempting to do—it also happens to be cheaper—and that we would be doing more aid than trade, and that the underdeveloped countries would find something perhaps attractive in such a division of labor?

I should not like to be misunderstood. I am simply asking a subsidiary question to one that merits a great deal of attention. I am not trying to point to this as the likely or the desirable outcome.

Represenative BOLLING. Did you have a comment?

Dr. COHEN. Yes.

Representative BOLLING. Proceed.

Dr. COHEN. If I may.

It seems to me that we are taking this 11th point too seriously, and I don't think Senator Flanders meant it to be taken too seriously.

At first, until he grinned, I was a bit sad to feel that he had succumbed to the Madison Avenue technique which the present administration has used.

Representative BOLLING. Those of us who know Senator Flanders know this was meant to be humorous.

Dr. COHEN. The original slogan was "Trade, not aid." This was one extreme, which the present administration did not live up to, because they continued with aid for 4 years.

This slogan, "Aid, not trade," is the other extreme, which is equally untenable and unfeasible. Obviously, a country as large and powerful and as important in world trade as we are, must use both factors. The question is: What mix? What combination is best? This is the basic issue.

I don't think we ought really seriously to treat either extreme alternative as a real possibility, because in fact when you get down to it, neither of them are.

Representative BOLLING. That is particularly true in view of the point that ex-Senator Cooper made, that in certain cases neither is at all effective. He made the point that if you made a grant or a loan, and the capital goods or the raw material that was desired was not obtainable under the terms, then this was a situation where the aid or trade was totally ineffective.

That raises another question in my mind. I know in wartime, steps are taken to see that resources go where they are considered to be most urgently needed for the national interest. And Senator Cooper's followup remark, that this must be done in a voluntary and cooperative way, certainly that must be tried first.

But suppose this were to fail. Suppose we considered it a crucial matter of national policy that in what appears to be some sort of an economic and other competition between India and China, in Asia, suppose we came to the conclusion that it was a crucial question, as I think it is, that one rather than the other, or that at least both succeed; would it not be a rational policy for us to go beyond the voluntary and the cooperative if the voluntary and cooperative did not succeed in getting for these underdeveloped nations the resources that they must have?

Dr. THORP. I think it would be worth just remembering that the war powers continued long enough so the early years of the Marshall plan were made effective by United States Government control over exports.

I can recall, for example, meeting with the people in the industry producing electrical equipment and talking with them about how much of this should go abroad. There was a tremendous need for it in the United States, and as far as they were concerned, they preferred the American market.

This was where their customers were closest, and it required Government action to get the necessary exports.

As a matter of fact, this same thing happened with the textile industry in terms of textile exports in the immediate postwar period. They were very uncertain about whether they were going to have any considerable foreign markets, and it required action by the Government to meet demands from abroad; so that this has happened in peacetime, although with the benefit of carryover war authority.

I would think it would be particularly important to have in mind if anything of the sort that is implied in some of Senator Flander's questions should happen, that is, if we decided to plan imports, then we would have to plan exports to keep our international account straight, if for no other reason.

But this problem of the Indian steel is a tough one. There is no doubt about it. They tried to buy it in the United States, and they couldn't get on the order books. The order books were full. So now the steel is being bought in the Soviet Union.

This is an authority which the Government doesn't have at the present time, as I understand it. And it conceivably could be necessary, although perhaps normally the United States has sufficient capacity so that it can meet demands without runing into difficulties.

Representative BOLLING. If we were to adopt the approach suggested by Senator Flanders' questions, we would in effect, because of our power in the world, be creating a planned, highly organized, doing much to create a planned, highly organized world economy.

How long would our own mixed, basic economy of the market place inside the United States last under these conditions?

Dr. THORP. We are rather rugged individualists, in general, but certainly this would require that the Government take responsibility for bringing in and distributing and reselling these items, if one were really to do it effectively. This would create much the same kind of allocation of materials that we had to do during the war.

This would be limited to the raw materials which we import, and wouldn't necessarily affect the whole economy, but it would mean a slice of our economy which moved over into very clear-cut Government planning, I would think.

Representative BOLLING. The impact of those imports, unless I misunderstand, is at least indirectly very widespread. And it seems to me that if to make certain kinds of steel we had to import certain kinds of this or that, that then the tendency would be for this to roll up; that if you had an involvement in the original product, that then you might have a concern about the end product, and so on.

This does not necessarily follow, but it is not at all inconceivable that it would.

Dr. THORP. I would assume that in this kind of picture, the Government would overbuy for a period of time and build up a stockpile in this country. This would seem to me the business way to handle it.

Then again you run into all the worries on the part of businessmen when they feel that the Government has a stockpile, and the release of that stockpile might disturb the commodity prices.

Senator FLANDERS. Mr. Chairman, I am being led by this discussion along paths which I do not choose to follow, nor am I sure that it is necessary for me to follow them, but I doubt that we work that discussion out today.

Representative BOLLING. I am delighted to hear it.

Dr. Eckstein, I have one question.

Dr. ECKSTEIN. Yes, sir.

Representative BOLLING. You spoke of the relationship of the Chinese economy to the Soviet economy. I am curious to know if there are any or many signs of the Chinese Government using economic policy as an instrument of foreign policy, aside from this major relationship.

Dr. ECKSTEIN. Well, there are 2 or 3 instances of that. Two instances are the case of North Korea and North Vietnam, which are, of course, members of the bloc, but for which China carries the major responsibility as compared to the Soviet Union. That is both politically and economically. This expresses itself in the form that it is the Chinese that carry the major burden of aiding North Vietnam and North Korea, rather than the Soviets, although the Soviets are also making a contribution.

Another very important problem there is Japan, as Dr. Cohen I am sure would testify. I think the Chinese would like to use foreign trade and foreign economic policy as a weapon or as a tool in their relations with Japan. That is, it seems to me that the drive for greater Sino-Japanese trade not only has an economic tradition and is not only economically based and motivated, but that it has certain political motivations, both on the Chinese side and, to some extent, also as far as certain political elements in Japan are concerned.

I wouldn't like to be misunderstood. I wouldn't suggest that an increased level of trade between China and Japan would not have a very definite economic rationale. I am saying that over and above the economic rationale there are strong political undercurrents which are present here that the Chinese wish to use and, to some extent, are using as a political weapon in Japan.

Representative BOLLING. Are they in part stopped from using it more by their own stage of development?

Dr. ECKSTEIN. It seems to me that sort of operates both ways, in a sense. That is, if you consider coal and iron ore, for instance, which are the commodities that Senator Flanders mentioned before, and that

used to be among the major export commodities from China to Japan, well, coal production in China seems to be expanding fairly rapidly.

If it continues to expand at this rate or at the projected rate, then the Chinese should have enough left over, over and above their own industrialization needs, to meet export commitments to Japan at higher levels than in the recent past.

It seems to me this is much less true in the case of iron ore. However, this can, of course, be altered if, for instance, Japan and China should enter into an agreement whereby Japan would send mining equipment and help to modernize many of the Chinese mining methods, which would increase the productivity of mining in China, in return for, let us say, some increased exports of iron and coal from China.

I don't know what Dr. Cohen's views on this are.

Dr. COHEN. They are on pages 32 to 37 of the paper, and I don't want to delay the proceedings with them now, Mr. Chairman.

Dr. THORP. I would like to emphasize one thing in this, though: The political implication of not trading in this case.

In Japan, the state of mind is, as created by the Chinese, that there would be a great volume of trade if it were free, and it is the United States which is standing in the way; and, therefore, the dilemma has the usual two horns—the problems if there were trade, that Dr. Eckstein mentioned, but also the problem, as long as there isn't trade, of that fact being used as the basis for an anti-American attitude.

Representative BOLLING. Thank you.

We thank you all for your time. It has been a great help.

With that, the subcommittee will adjourn until tomorrow at 10 o'clock in this same room, and the subject will be The Challenge of World Economic Competition and Growth.

(Whereupon, at 12:50 p. m., the subcommittee recessed, to reconvene at 10 a. m., Thursday, December 13, 1956.)

WORLD ECONOMIC GROWTH AND COMPETITION

THURSDAY, DECEMBER 13, 1956

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON FOREIGN ECONOMIC POLICY OF THE
JOINT ECONOMIC COMMITTEE,
Washington, D. C.

The subcommittee met, pursuant to adjournment, at 10:10 a. m., in room 1301, New House Office Building, Washington, D. C., Hon. Richard Bolling presiding.

Present: Senator Ralph E. Flanders.

Also present: Charles S. Sheldon II, staff economist; Grover W. Ensley, executive director; and James W. Knowles, staff economist.

Representative BOLLING. The subcommittee will be in order. This is the third and final day in the current series of hearings on world economic growth and competition for the Subcommittee on Foreign Economic Policy. Last Monday we reviewed economic growth trends in the industrial nations. Wednesday our attention focused on the underdeveloped areas, and particularly on those trade problems of the Far East related to economic progress. The 10 witnesses who appeared have developed for us in orderly fashion key points of the analysis and facts of economic growth.

Sufficient material has been presented already that combined with today's presentations, some weeks of study and review of this information will be required on the part of the subcommittee. I believe I am correct in stating that the results of this effort probably will be incorporated in the report of the full committee early next year when the President's Economic Report undergoes its annual assessment. Certain supplemental materials for the record have been requested during the course of these hearings, and I will order that these and a limited number of other pertinent materials be made a part of the record.

On this third day of the hearings, we are fortunate in having another high-caliber group of men to help us explore some of the implications for the United States of the world economic growth we have under study. We are concerned as to how both the relative growth of rival economies, and their absolute levels of attainment will affect us and the policies we should pursue in the broad realm of our economic strategy both at home and abroad.

The United States is interested in promoting peace with justice, and economic progress with sustainable increases in well-being for individual people both in our own country and abroad. But we are also conscious of the presures of some international rivalries, and know that the realities and dangers in some parts of the world will demand special economic responses from us that would not otherwise obtain.

Before proceeding to the first witness, Senator Flanders, do you have a comment you would like to make?

Senator FLANDERS. My comments are getting shorter and shorter and shorter each morning. I may have occasion in questioning, Mr. Chairman, to refer to certain questions that I have been posing which do not always bear directly on the subjects of these panels, but I am going to ask to have these questions put in front of each member of the panel so that if I happen to raise any questions, they will have them before them.

Representative BOLLING. I think that is being done, Senator.

Thank you, Senator.

Our first witness this morning is Prof. Henry L. Roberts, director of the Russian Institute of Columbia University. Dr. Roberts has earned advanced degrees on both sides of the Atlantic, and has served our Government both in war and peace as a specialist on European and Communist affairs. After first heading the program on East Central Europe at Columbia, he has now become head of the notable Russian Institute. We look to him this morning to bring us perspectives on the Soviet use of economic growth for military and political purposes.

Dr. Roberts, you may proceed as you wish.

STATEMENT OF HENRY L. ROBERTS, DIRECTOR, RUSSIAN INSTITUTE, COLUMBIA UNIVERSITY

Dr. ROBERTS. Thank you.

After having accepted the invitation to participate in these hearings, I must confess I developed serious doubts as to whether I had much to contribute, more so after I saw the names of the very excellent and informed people who are contributing. I am neither an economist nor a military expert; I am a historian trying to think in the future, and in my few remarks this morning, I shall doubtless raise more problems than answers, but that is perhaps a useful task especially as I am the first on the panel.

I assume that there is no need for me to dilate on the general question of Soviet aims and purposes. I am willing to accept Stalin's statement that the fundamental problem of Leninism is the problem of power, to which I should add, power organized in the service of an ideology, communism.

The Soviet Union is still, and explicitly Leninist. Hence, I would simply propose as a starting point that the U. S. S. R. will attempt to utilize and organize all available components of power—economic, military, political, and psychological—in the pursuit of its purposes, the preservation of the present Communist base, and the further expansion abroad.

I would personally be reluctant to accept any other premise as a working assumption.

Hence I take it that my task is to look at the problem of the particular ways in which the growth of the Soviet economy may be effectively translated into power factors, whether military or political, that can promote the general Communist objectives. I gather that you have already discussed on Monday the general question of Soviet economic growth, in absolute and percentage terms, and in comparison with the United States. Therefore, I shall only state my own understanding of the situation without any attempt to elaborate.

First, that Soviet economic growth has been rapid, more rapid than that of the United States, that the rate may slacken in the future, but could well remain above our own.

Second, that in absolute terms, American production remains much greater, perhaps in the order of 3 to 1, and that this difference is such that for the next several years, the absolute difference between American and Soviet production will increase rather than diminish despite my expectation of an unfavorable rate differential.

In the long run, of course, if present projections of the rate of the growth continued, this advantage would disappear.

In other words, as a first general statement, I should say that the Soviet Union, in terms of its own past and present, should be in an increasingly favorable position to take advantage of its economy growth for military and political purposes. Though when this is said in terms of comparison with the United States, the picture is at once more complicated. I think that in this particular topic with which I am dealing, comparison is of the essence.

This, of course, is too general, and we have to turn to the use to which this growth may be put. One obvious use and one that has raised much interest is the possibility of achieving political gains abroad through increasing activity in foreign trade, technical assistance, capital export, and the like, to win friends or to ensnare them. Inasmuch as, however, Mr. Heymann is slated to discuss trade and technical assistance, I shall not pursue this topic myself.

A second and possibly related way is via what we call economic warfare, that is, using the economic capabilities abroad for directly disruptive purposes rather than for apparent construction: dumping, dislocating markets, using gold stocks, and the like.

I am not persuaded that this is a particularly significant possibility, at least under present circumstances. In the first place, it would run counter to the effects hoped for in the first use, and I doubt if it would be particularly effective. Perhaps I underestimate this possibility, but it would seem to me to be of rather marginal importance at this time.

Rather than to develop these and possibly other themes of economic activities abroad, to take advantage of economic growth for political and military purposes, I should rather stress the more direct translation of this growing economic potential into military and political capabilities. With respect to military power, I think the first thing to say is that because of the tremendous impact of recent technology on military affairs in the area of armaments, strategy, bases, and logistics, it is next to impossible, certainly for a layman, to gain a clear picture of the relation of economic to military strength.

I think that the most I can do is list some considerations. First, under the conditions of thermonuclear conflict, economic potential may not correspond, through its conversion, to military potential, since, it might be totally destroyed.

Moreover, there is the question as to the requirements in economic potential when both sides enjoy what has been called atomic plenty and the means of delivery.

However, these considerations do not dispose of the competitive economic and technological race before any such war, nor of a war fought by other means, nor of a situation in which a war does not occur, but weapons still serve an important political and strengthening role as a deterrent, as a means of blackmail, as bluff.

Hence, I would conclude that it is not correct to assume that thermonuclear power makes economic growth irrelevant with respect to military capabilities.

Second, while it is extremely difficult to anticipate the nature of war in the future, if there is to be such, our very uncertainty suggests that the growth of the economic base is of the greatest importance in preparing a state for a variety of military needs and contingencies, and in this respect the continual growth of the Soviet economy clearly, if only in this general sense, contributes to its military potential.

Moreover, when we look at those sectors of Soviet economic growth which appear most relevant to military potential, the more formidable does the Soviet position appear. In comparing Soviet and American production, we find on the whole that the more immediate relevant the economic measurement is to actual military capabilities the less favorable is the ratio to the United States.

That is, as we proceed in our comparison from gross national product to industry, to war supporting industries, to military end items, the relative picture is increasingly favorable, I believe, to the Soviet Union.

Fourth, given the relatively great capacity of the Soviet Union to determine its sectors of most intensive growth, we should anticipate an improvement in their situation, that is, greater flexibility in meeting the manifold requirements of an uncertain and changing military-technological situation.

Fifth, against this, however, is the growing cost of military equipment and armaments as the art of war becomes increasingly technical and technological. Here, given the fact that the creation of armed strength is on a competitive basis, this rapid growth of costs of equipment could work to the disadvantage of the Soviet Union because of its smaller, absolute production and hence, limit its flexibility.

That is, a crash program, for example, to develop a certain weapon or range of weapons could be a greater strain on the Soviet Union than on the United States despite its greater relative leeway in allocating effort and resources.

With respect to political power, this is, of course, a rather intangible field. One can make a general statement that Soviet economic growth obviously serves to back up and strengthen its various political instruments in the areas of political warfare, propaganda programs, and the like. In my judgment, however, the greatest value here is simply the fact of economic growth, its political and psychological impact upon the rest of the world, this image of a relatively poor country pulling itself up by its bootstraps to being the second industrial power in the world, bidding to overtake us.

This itself is an enormous political instrumentality in bolstering communism claims, in making the Soviet Union appear to be, for all its nasty features, an effective and vigorous going concern.

As one last point, I should like to raise a question I touched on previously, the meaning in power-political terms of a situation in which the Soviet Union is growing more rapidly percentagewise than the United States, but because of our headstart and greater absolute production, our absolute advantage continues, for a time at least, to increase and improve.

That is, to put it arithmetically, while A divided by B is diminishing A minus B is increasing. The question arises, Who is gaining in this situation?

You have doubtless found people taking both sides of this particular question. In general, I would conclude that it depends on the question whether there is a specific use to which this growth may be applied.

If it is just a matter of general relative situations, building up of general potentiality, then it seems to me the Soviet Union clearly gains through acquiring greater leeway, flexibility, and margin for its policies, whatever they may be.

If, however, it is a matter of a specific objective which is to be reached, for example, as I have suggested, a crash program to develop a new weapon or weapons systems, particular competition in a certain field, say, of technical assistance, then it seems to me our growing absolute advantage could well work to our benefit as against the Soviet Union.

Representative BOLLING. Thank you very much, Dr. Roberts.

Our next witness this morning is Mr. Hans Heymann, Jr., the representative of the economics division of the Rand Corp., that unique organization which combines many disciplines for assault on the most knotty problems of concern to the defense of the United States.

Of necessity, however, Mr. Heymann today speaks only for himself. His own record of research and publication, including coauthorship with Prof. Abram Bergson of a major study on Soviet national income and product, makes him a good choice to analyze for us a vital problem. His subject is, Soviet Economic Growth as a Base for Trade and Technical Assistance.

Mr. Heymann, you may proceed as you wish.

Mr. HEYMANN. Thank you very much, Mr. Chairman.

STATEMENT OF HANS HEYMANN, JR., REPRESENTATIVE, ECONOMICS DIVISION, THE RAND CORP.

Mr. HEYMANN. I welcome the opportunity to testify before this committee on the relationship between the growth of the Soviet economy and its participation in foreign trade and technical assistance, because I believe that this is an important subject, and one about which there appears to be currently some misapprehension. Is there a necessary connection between the growth of the Soviet economy, and the extent and nature of its involvement in foreign trade?

In the course of the last 2 or 3 years, the Soviet bloc has appeared quite dramatically as a supplier of capital goods and technical know-how to the underdeveloped areas, in exchange for some agricultural and raw material surpluses of those areas.

This development has given rise to some interesting speculation as to the meaning of the new policy for the future of Soviet foreign trade. The Soviet economy, it is argued, is approaching maturity. For more than 25 years the Soviet Union has consistently devoted its best resources to the development of the capital-goods industries, while neglecting its agricultural sector; as a result, the Soviet economy has experienced a shift in its cost structure, so that now it enjoys a comparative advantage in the production of capital goods and suffers

a comparative disadvantage in agricultural and raw-material commodities.

Because of this, the argument continues, the Soviet Union now finds it economic to export capital goods and to import raw materials and food products; the new economic reality is causing the Soviet Union to abandon its traditional insistence on autarky, to depend more and more on foreign sources of supply for a significant part of its agricultural and raw-material needs, and to emerge rapidly as a major supplier of capital goods in the world market.

So runs the argument. If true, it would be a momentous development indeed, calling for a drastic reassessment of the Soviet Union as a formidable economic competitor with the West. But is it true? Is there any indication that the Soviet economy is in fact dismantling its autarkic barricades and embracing radically new attitudes and patterns of trade?

I believe that even a cursory look at the size, direction, and composition of recent Soviet trade activities is sufficient to dispel this notion, and to suggest that the Soviet trade and aid potential is, at least quantitatively, still quite limited.

In looking at recent Soviet economic activities abroad, we tend perhaps to be overly impressed with one aspect of these activities, namely, its new venture into the realm of foreign aid, and we tend to lose our sense of perspective as to the dimensions of this venture and its place in the overall volume of Soviet trade. The aid efforts of the Communist bloc are certainly novel and spectacular, but the magnitudes involved are still relatively modest.

I have here attached to my statement a tabulation of all of the agreements concluded to date, and I believe this tabulation is up to date. I respectfully submit it for the record.

Representative BOLLING. Thereby accepted in the record.

(The document referred to was inserted as follows:)

Foreign aid and credits of the U. S. S. R. to underdeveloped countries [1]

Country and project	Date of agreement	Amount	Interest rate	Duration of credit	Brief description of project
1. Afghanistan:		*Mil. dol.*	*Percent*	*Years*	
(*a*) Grain elevators, flour milling and baking plants.	Jan. 27, 1954	3.5	3	5	Credit to cover Soviet equipment and services of technicians.
(*b*) Oil storage tanks	July 1954	1.0			Do.
(*c*) Asphalt plant and paving project.	Oct. 5, 1954	2.1			Do.
(*d*) Economic development loan.	Jan. 28, 1956	100.0	2	30	Credit to finance several economic projects.
(*e*) Arms credit				8	Reported in PM (Daud) address made on Aug. 25, 1956.
2. India:					
(*a*) Steel mill project	Feb. 2, 1955 [2]	115.0	2.5	12	Credit to pay for Soviet blueprint, equipment, and technicians used in the construction of the steel plant (1 million tons).
(*b*) Industrial diamond mining project.	June 19, 1955				Soviet machinery to be supplied on credit to owners.
(*c*) Plant for files and rasps	Oct. 24, 1955				Contract with private firm for Soviet equipment.
(*d*) Commodity credit	Nov. 15, 1956	126	2.5	12	To cover purchase of Soviet heavy industrial machinery.

Foreign aid and credits of the U. S. S. R. to underdeveloped countries[1]—Con.

Country and project	Date of agreement	Amount	Interest rate	Duration of credit	Brief description of project
		Mil. dol.	*Percent*	*Years*	
3. Finland:					
(*a*) Gold (or free exchange).	Feb. 7, 1954	10	2.5	10	
(*b*) Gold (or free exchange loans).	Jan. 25, 1955	10	2.5	10	
4. Yugoslavia:					
(*a*) Industrial development (fertilizer production).	Jan. 13, 1956	110	2	10	Soviet equipment on credit for 2 plants, 1 power station.
(*b*) Raw materials credit...	Feb. 2, 1956	54	2	10	Credit to cover Soviet shipments of raw materials during 1950–58.
(*c*) Gold (or free exchange) loan.	....do.....	30	2	10	For use during 1956–58 to be repaid in 10 years, beginning Jan. 1, 1959.
(*d*) Atomic energy reactor..	Jan. 28, 1956				
(*e*) Industrial development.[2]	Aug. 3, 1956	40	2	(4)	For coal, shipbuilding, oil and gas, reclamation, agriculture.
(*f*) Aluminum combine [3] (50,000 to 100,000 tons).	....do.....	175	2	(4)	Project to include aluminum plants, hydroelectric power stations, bauxite mines.
5. Burma:					
(*a*) Technological Institute.	Dec. 6, 1955				Soviet assistance in construction to be paid in rice.
(*b*) Hospital, theater, sports stadium.	Apr. 1, 1956				Do.
(*c*) Industrial development.	Dec. 6, 1955				Announced in general terms: agreement still to come.
6. Egypt:					
(*a*) Laboratory nuclear physics.	Feb. 10, 1956				Covers Soviet equipment and exchange of technical personnel.
7. Indonesia	Sept. 15, 1956	100	2.5	12	To cover several unspecified industrial projects, Indonesia given 8 years to spend credit on specific projects.

[1] From the files of U. S. Department of Commerce.
[2] Indian Government accepted Soviet project study on Mar. 8, 1956.
[3] Further utilization January 1956 industrial development credit.
[4] Long term.
[5] In conjunction with GDR; this credit covers first installment of deliveries to be made in 2 stages

Mr. HEYMANN. This tabulation shows the credit agreements actually concluded by the bloc now aggregate roughly $900 million (exclusive of military credits). Most of these agreements were concluded during 1956 and the credits will be drawn on over a period of about 5 years, so that the annual flow of trade resulting from these arrangements is not really going to be large.

Moreover, both this and other Soviet efforts to promote trade with the underdeveloped countries have been launched from an extremely slender base of existing commodity exchange, so that despite these new trade and aid arrangements, hardly any underdeveloped country as yet conducts more than 10 percent of its trade with the bloc.

I do not wish to imply that the Soviet effort in this area may not be highly effective. As I shall point out later, I happen to think that it is. But it certainly does not derive its effectiveness from its size.

Another point to bear in mind is the fact that the Soviet excursion into the underdeveloped areas represents only a small portion, and a quite unrepresentative portion, of overall Soviet trade activities.

The overwhelming bulk of Soviet trade (more than 90 percent) is conducted within its own bloc and, to a lesser extent, with the countries of Western Europe. It is here that we must look for a clue as to whether Soviet trade is in fact undergoing a transformation. What do we find when we look at the commodity composition of this trade?

Within its own bloc, we find the Soviet Union a net importer of capital equipment, absorbing nearly half the capital goods exported by the satellites, while the bulk of Soviet exports is made up of raw materials, fuels, and food. This at least was the case in 1954, the last year for which such estimates are available.

But I can think of no reason why this relationship should have been reversed since then; on the contrary, recent events in Eastern Europe would be more likely to have intensified it. When we look at Soviet trade with the West, we similarly find that its exports continue to be dominated by the same food, fuel, and crude materials that have been the traditional export staples of Russia for decades, and that its imports continue to be predominantly manufactured products.

Soviet imports of machinery and equipment, particularly, have been growing steadily while its exports in this category remain quite small.

I have a small tabulation here from the Department of Commerce which shows the extent to which the Soviet economy is still a net importer of machinery and equipment.

Soviet trade with the free world

[In millions of dollars]

	1953	1954	1955
Soviet imports of machinery and equipment	106.7	145.1	184.7
Soviet exports of machinery and equipment	3.6	11.4	15.9

In other words, when we look at what has actually been happening to the commodity structure of Soviet trade, we find very little, if any, shift away from the traditional pattern. And yet, in terms of current Soviet economic needs, such a shift would seem to be very much in order.

There can be no doubt that the steady growth in the scale of industrial production both in the U. S. S. R. and more recently in the satellites, has increased considerably the bloc's needs for imported raw materials.

The stagnation of agriculture, which is also a blocwide phenomenon, similarly would seem to argue for a greater Soviet reliance on imports in this sector. At the same time, clearly, the Soviet economy now produces machinery and industrial equipment on a vast scale and in great variety.

It may in fact now have a comparative advantage in the production of this type of goods relative to agricultural and crude products. One would expect that the existence of the ever-growing annual pool of industrial goods would have long since led to a significant net flow of industrial exports to the outside world. Why has this not occurred, and why, in my view, is it not likely to occur on a really substantial scale in the near future?

In part, the answer can be found in the critical equipment needs of the domestic Soviet economy, engendered by the ambitious growth rates of the 5-year plan, by the necessity to achieve rapid productivity gains, by the ever-multiplying requirements of a modern defense industry.

In part, the answer lies in the heavy claims on Soviet machinery production of the developing economies of Eastern Europe and China. But most important, it seems to me, is the underlying reluctance of the Soviet leaders to abandon their long-held doctrinal ideal of autarky.

At this stage in its development, the Soviet economy could certainly enjoy more of the benefits of foreign trade, if only it were willing to tolerate even a modest degree of dependence on external supplies of food and raw materials. But such a fundamental revision in the Soviet attitude toward foreign trade has not taken place.

True, there appears to be now some official recognition of the advantages of international specialization, and some efforts on the part of Soviet economists to promote at least an intrabloc division of labor; moreover, the current economic offensive in the underdeveloped countries indicates an important trend toward a more flexible and confident Soviet behavior in international economic affairs. But while the Soviet planners no doubt have considerable latitude for expanding trade within the limits of the principle of autarky, the principle continues to be very much in force and to exercise an important limiting influence on the magnitude and normal growth of Soviet foreign trade.

I have, so far, concentrated only on the magnitude and growth aspects of the Soviet trade offensive, and I have suggested that it is not now large, nor has it so far shown much promise of becoming large. But it would be a grave error if we were to consider only these quantitative aspects of the Soviet effort. We would be foolhardy to draw comfort from its modest dimensions, and ignore the highly effective way in which the Russians have deployed their limited aid resources.

In this respect one cannot help but be impressed with several features of the Soviet program:

1. The shrewdness with which the Soviet planners have selected their economic aid targets and weapons, to achieve maximum political impact at an acceptable cost. Instead of frittering away their resources on numerous countries and projects, they have carefully conserved their main effort for use in 4 or 5 key areas, Afghanistan, India, Yugoslavia, Indonesia, certainly, and possibly Egypt and Burma as well; and, within each of these areas, they have concentrated their support on a few spectacular projects dear to the hearts of the local population. Moreover, Soviet preference runs distinctly toward long-term economic aid arrangements rather than a straightforward expansion of normal trade, since the aid approach does not involve them in a large immediate export commitment, but allows them to string out their shipments over a much longer period of time, thus reducing the immediate burden on their hard-pressed equipment industry.

2. The adroitness of Soviet policies in exploiting some of the weaknesses of existing western aid programs. Recent Soviet loans, for example, uniformly carry an interest rate of 2 to 2.5 percent, about half the rate at which such credits are available from the West.

85589—57——9

More important, repayment terms tend to be attractive to the underdeveloped countries since the Soviet Union is willing to take repayment in the form of local export goods. Moreover, in the process, the Soviet Government has shown itself prepared to help the recipient countries dispose of agricultural surpluses, which could not be readily disposed of in the world market.

But above all, the Soviet salesmen have conspicuously abstained from tying their commercial undertaking to demands for political loyalty or military alliance. This "no strings" approach to aid has no doubt struck a strong responsive chord in the uncommitted part of the world.

3. And this brings me to the final aspect of the Soviet program to which I should like to call attention. It is the perceptiveness of the Soviet leaders in knowing how to appeal to the pride and sensibilities of the underdeveloped countries. Recognizing the desire of the newly independent countries for status and respect, the Russians have spared no cost in sending top-ranking Soviet officials to carry out negotiations and conduct technical programs.

To head the Soviet steel mill project in India, the Russians sent no less an authority than a Deputy Minister of Construction of Chemical and Metallurgical Enterprises of the U. S. S. R. Great emphasis has been placed in the Soviet aid program on the provision of technical training of local specialists, on extending opportunities for educating local technicians in Soviet institutes, on establishing research centers and technical schools in the local areas; this effort cannot help but exert a powerful influence on the intelligentsia in each of the target countries.

In the short run, there can be no doubt that the modest but ingeniously designed Soviet effort has reaped large political rewards, quite out of proportion to its size.

Whether this performance can be sustained in the long run, as the program develops and suffers inevitable bureaucratization, remains to be seen.

Representative BOLLING. Thank you, Mr. Heymann.

Our next witness is Prof. Walter W. Rostow who is a product of both our university system and Oxford University. Dr. Rostow served in the United States Army in World War II, has been an official of the Department of State, a professor on both sides of the Atlantic, and a prolific author of books on economic growth, including studies on both the Soviet Union and Red China. He is now teaching at the Massachusetts Institute of Technology in the Center for International Studies. His subject this morning is United States-Communist Struggle in the Underdeveloped Areas.

STATEMENT OF W. W. ROSTOW, CENTER FOR INTERNATIONAL STUDIES, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Dr. ROSTOW. Mr. Chairman, my subject is so broad that I submitted a formal statement (The United States-Communist Struggle in the Underdeveloped Areas). I suspect that statement contains little that will be new to you, and it is not worth reading this morning at length.

If there is any virtue in including in your series of statements one on so broad a subject as mine it is, I suspect, only that the military, political, and economic strands in the problem of our struggle with

communism in the underdeveloped areas be brought together and, especially, that certain of the relationships among those strands be examined. In the light of that view I shall only briefly summarize the main lines of my formal statement and devote the balance of my time this morning to making some off-the-cuff extensions of the fourth part of that statement, which concerns American policy.

The statement begins with an attempt to summarize the nature of the American interest in the evolution of the underdeveloped areas. Three interests are identified: one of them is the direct American military interest, that these areas not pass into the hands of communism or otherwise go hostile to us. Their location, population, resources, and future prospects make them, quite simply, a balance of power area in Eurasia and therefore of direct strategic interest to the Soviet Union whose stable aim is to disengage the United States and the free world from the balance of power that we precariously hold. Therefore the evolution of the underdeveloped areas has a direct military bearing on our status in the world.

Second—and I would rate this as of equivalent importance—should these areas go politically totalitarian or Communist, they would be lost to the part of the world which is loyal to the pursuit of democratic values. Their ideological loss would tend to make the United States an island in a totalitarian sea, with very grave costs for the quality of our domestic life.

The third relationship of the United States to these areas is not very hard to perceive as one reads the papers these days. It hinges simply upon the relationship of these areas to our other allies; namely, the industrialized countries of Western Europe and Japan. Their political destiny and their economic viability hinge on the maintenance of some kind of unity in the free world between its industrialized and underdeveloped parts.

When that unity is shattered—as it has been over the Suez issue and oil—we can see the extreme consequences for Western Europe. The Atlantic Alliance, instead of being a part of the world alliance, is thrown back into a limited orbit; and the free world's hold on the world balance of power is put in jeopardy.

These are, then, the three substantial American interests in the evolution of Asia, the Middle East, and Africa.

The second thing I tried to do in my formal submission was to characterize, in general, the forces at work in these underdeveloped areas. I tried to find a way of talking about these areas in general; because it is evident that India is a very different place from South Korea, which is a very different place from Egypt, and so on.

There is, however, one central clue which has, in the end, a special meaning for American policy. The key characteristic of these areas is that they are in a process of political transition toward status as effective modern states. They are evolving toward modern statehood out of forms of politics and society based on regions, where power lay usually in one form or another of land-based, regional authority. What we are seeing in the world is a massive version of the transition which Western Europe itself had to make in postmedieval history.

If you start with that familiar and very broad generalization, certain things become clear. One thing that becomes clear is the reason why we tend to find in these areas forms of politics that are not very democratic. What is happening in these areas is that those groups

who feel they have a vested interest in making strong modern states form coalitions. The elements in these coalitions are without stable, long political roots, without clear common interests. These coalitions are ad hoc groupings: their one point of agreement being that they want to convert these regional societies into effective modern states.

The common motive is nationalism; but nationalism has many facets. One group which has figured in virtually all the modernization efforts that one can think of, for example, Attaturk's in Turkey, the earlier Japanese effort, Bismarck's creation of the modern German nation—has been the military, whose motive was to see their nation establish a position of dignity on the world scene. There is a continuity from Germany and Japan in the 19th century to Nasser and his colonels, and the military officers we are training in South Korea.

Another group has been made up of commercial men whose national interest was in free trade on a national basis, and who found the regional organization of the country awkward.

These ad hoc national coalitions we can see around the world struggling toward modern nationhood can move in any 1 of 3 directions. They can move to try to redress old national humiliations by having external ventures. We see that acutely in the present stage of Nasser's policy. But we can see it also in the manner in which the Kashmir issue hangs over Pakistan and India, and the issue of West Irian generally hangs in the balance of politics in Indonesia. And to go back to Ataturk, who is a good model of the process, we can recall his trouble with the Greeks. This is a classic form for the expression of the new nationalism.

The second is the use of the nationalist spirit, energy, and resources to consolidate the domestic base. We have seen this in Diem's exercise in South Vietnam, in his cleaning up the sects, a phase of consolidation which has the equivalent in all these nations.

Finally, the nationalist leaders can turn to modernizing their economy, their educational system, and their society in its widest sense.

These are the three basic directions in which nationalism can go; and I believe it is possible to characterize the nations of the underdeveloped areas with respect to the proportion of their energies that go in each of these three directions.

A reason for this somewhat abstract and academic description is that I think it gives some insight into the way the Communists are operating in these areas and into the way we should operate.

Communist policy is based on an attempt to exploit whatever strands and directions nationalism is taking to disrupt the unity of the free world; to draw these nations as far as they can be drawn toward communism in the short run; and to prepare the way for Communist takeover in the long run. Communist policy is extremely flexible in this respect. Where they find a Nasser—or any national which has an acutely felt external objective or grievance—the aim of Moscow is to aline itself if possible with that grievance, and thus to produce conflict in the free world and exploit that conflict when it is brought about. Where Communists find relatively stable states, like India, they try to detach these from the free world by associating themselves with their aspirations for economic growth, with their general sentiments against colonialism and for peace. Where Communists find areas that are susceptible to guerrilla operations they continue—as in Malaya and in Burma—to prevent the consolidation of these new

nations by tactics which draw away their energies on the negative tasks of defense.

Mr. Heymann has described with great accuracy and with fresh and important data one facet of Communist policy: the policy of expanded trade, loans, and technical assistance. I think it is extremely important, however, to realize that Communist policy is playing the whole spectrum of possibilities opened up by the transitional state of the underdeveloped areas, not merely the possibility of attracting the new nations by assisting their economies.

In terms of this quick view of a large matter what is the task for American policy?

First, we must make it as unattractive as possible for either Communists or non-Communists to seek their objectives in these regions by means of force.

An ability to deliver H-bombs is not a sufficient deterrent against limited hostilities generated either by communism or by the acute nationalist aspirations of certain of the underdeveloped areas. And I would add that support for the U. N. without an American force in being and the evident will to use it if necessary will not for long hold the line against the destructive forces which exist or which may be stirred up in the transitional areas. The first prescription that flows from this definition of the transition is, then, a military one: we require in being a force for limited hostilities, a force sufficient to make it mightily unattractive either for Communists to stir up limited war or for certain of the more ardent nationalist leaders to believe it to be safe and profitable to engage their forces beyond their borders.

Put another way I think we must have a spectrum of deterrence which includes not merely deterrence against Soviet delivery of H-bombs but force in being sufficient to make it mightily unattractive for anyone in these areas to envisage the substantial use of force.

Our second job is this: we must make it as attractive as possible for the political leaders of the transitional nations to concentrate their own energies and the powerful nationalist sentiments of their people on the third job I described; that is, on the domestic tasks of modernization.

Here, evidently, we require a pool of loans and technical assistance available not merely for those nations who join us in military alliance, or for those who have already been brought to crisis by Communist tactics, but also for all those nations prepared to move forward peacefully and with reasonable efficiency on the road to modernization.

I would say that our difficulty in the Middle East crisis has been that we had neither a stick nor a carrot capable of controlling and guiding the forces at work in that area; and I would add that I can envisage no solution to the Middle East crisis which does not involve the generation by the United States of both a new stick and a new carrot.

Let me refer now to a third problem which perhaps should rank with the other two. It is a more subtle problem. It concerns those transitional areas which face serious military problems. I am thinking, for the moment, of the problem of South Korea, counterpoised against the great Communist weight across its border; of Southern Vietnam and the SEATO area; of the problem of Taiwan across the water from Communist China; and of certain others among our mili-

tary allies into whose economies and societies we have invested the bulk of our foreign-aid resources in recent years.

I think we should be clear that, in general, the maintenance of these large military establishments are a cost to the modernization of those societies. They may well be a necessary cost; but it is worth looking and relooking at the military calculus very closely to see if we cannot find ways cheaper in their energy and resources to guarantee their security, so that a higher proportion of their energy can be diverted on to the tasks of modernization. And we should be very clear as to whether, in fact, establishments on the scale that they now maintain are necessary, or whether the maintenance of an American pool of mobile force might not permit them to cut down, to a degree, their present military commitments and devote a higher proportion of their resources, energy, and talents to the tasks of modernization. This is a matter of degree, a calculus as between alternative objectives; but it is one we should honestly face, because the maintenance of these very large local military establishments are, in general, a drain on limited energies, talents, and resources needed for other purposes.

And where we must, in the common interest, maintain substantial military establishments in the transitional areas we should be more imaginative than we have been in the past in trying to make those establishments contribute constructively to the modernization of their societies. I have in mind an analogy with the history of our own Corps of Army Engineers which played a distinguished role in the building up of this economy in the 19th century, helping to lay out the railways, clear the rivers, build the canals; and I believe we should try to pass along, as one of the most valuable bits of lore in American history relevant to the development of these societies, the possibility of using in democratic ways a military establishment to help an underdeveloped country onto its feet. In other words, where we must maintain with these peoples major military establishments, we should try to make those military establishments contribute in so far as possible to the total movement toward modernization.

Generally speaking, then, I conclude that we need a usable stick and a readily available carrot if we are to deal constructively with the powerful forces at work in the transitional areas. A stick to convince one and all that the use of force outside of international agreements is likely to be expensive and ineffective, a carrot to help draw the energies and attention of men onto the great acts of construction on which the fulfillment of their ambitions depend.

The central task of American foreign policy in the underdeveloped areas is to create an environment in which the use of military force is ruled out, and within that peaceful area then to help men face and conquer the problems which must be solved if the transition of their societies to modern status is to be achieved without recourse to totalitarian methods.

This is a job I believe required urgently by the American interest; it lies fully within our economic and military capabilities; and it is consistent with our deepest national traditions and values. It is time we got on with it.

(The document referred to is as follows:)

STATEMENT BY W. W. ROSTOW, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

THE UNITED STATES-COMMUNIST STRUGGLE IN THE UNDERDEVELOPED AREAS

The American interest in the evolution of the underdeveloped areas of Asia, the Middle East, and Africa is both direct and indirect.

Directly, the evolution of the underdeveloped areas is likely to determine the outcome of the power struggle between the United States on the one hand, the Soviet Union and Communist China on the other. The location, natural resources, and populations of the underdeveloped areas are such that, should they become effectively attached to the Communist bloc, the United States would become the second power in the world. More immediately, of course, these losses would directly affect our military base structure and would make more expensive and difficult the maintenance of an atomic striking force capable of continuing to deter a Soviet effort to take out American retaliatory power at a blow.

Directly, again, the loss of these regions to communism would radically diminish the area governed by loyalty to what we might broadly call democratic values. The United States would tend to become an isolated democratic island in a totalitarian sea; and under such garrison-state circumstances the maintenance and further development of our traditional way of life would be put in jeopardy, quite aside from the ominous military implications of such isolation.

Indirectly, the evolution of the underdeveloped areas is likely to determine the fate of the Western Europe and Japan and, therefore, the effectiveness of those industrialized regions in the free world alliance we are committed to lead. If the underdeveloped areas fall under Communist domination, or if they move into fixed hostility to the west, the economic and military strength of Western Europe and Japan will be diminished, the British Commonwealth as it is now organized will disintegrate, and the Atlantic world will become, at best, an awkward alliance, incapable of exercising effective influence outside a limited orbit, with the balance of the world's power lost to it.

In short, our military security and our way of life as well as the fate of Western Europe and Japan are at stake in the evolution of the underdeveloped areas.

We evidently have a major national interest, then, in developing a free world coalition which embraces in reasonable harmony and unity the industrialized states of Western Europe and Japan on the one hand, the underdeveloped areas of Asia, the Middle East, and Africa on the other.

If we are to do this we must be clear about the job we face. This brief testimony is designed to outline in very broad terms the nature of the job.

Specifically, I shall try to answer three questions:

First, what forces are at work in the underdeveloped areas of the free world?

Second, how are Moscow and Peking exploiting those forces?

Third, how must the United States work with these forces if our national interest is to be protected?

II

First, the forces at work in the underdeveloped areas.

The underdeveloped areas could better be designated "transitional"; for the basic fact about them is that they are in a process of change. Where are they going?

Politically, they are caught up at various stages in the process of making effective modern states. At an earlier time they were organized along traditional political lines that gave power not to a national government but to various regional leaders. These regional leaders usually had their roots in large-scale landholding; and the whole society was built around the relatively low productivity, self-sufficient agricultural life that resulted. Colonial administrations, where they existed, were usually superimposed on this traditional, localized political and economic structure.

In most of the underdeveloped areas these traditional societies have been undergoing piecemeal change for a century, or even more. Commerce expanded, at home and abroad; new ideas came from the West; and gradually groups emerged intent on making effective, independent, national states.

The motives of these revolutionary groups have varied. Some, including often the younger military men, wished to create a national state capable of maintaining independence in a world of modern power, to avenge the old humili-

ations of colonial status, to assert their sense of national dignity. Others have contested the power of the traditional regime in order to carry on commerce or industry unencumbered by the regional obstructions of the traditional society. Others—sometimes touched by ideas from the West—have been moved by an ideological or religious desire to see the material and spiritual lot of their people improved; and for this they appreciated that a centralized modern state was required.

What has happened in the postwar decade is that many of these societies, long in slow transition, reached a stage where they could and did successfully assert their independence. The world is full of new nations. Nationhood was usually achieved by a coalition among those groups in the society who shared an ambition to see emerge an independent modern nation. Lacking any stable basis for democratic politics as we know it, these groups tended often to rally around a single leader.

The formal achievement of independence has proved, of course, only a stage in the process of transition. Freedom is one thing; an effective modern state is another. We should recall that, even in our own history, it was one thing to defeat the British in the War of Independence; it was quite another to fashion a Constitution capable of holding together the American States under circumstances that would permit us to defend our independence against foreign powers and to build a truly national economy.

The great political engine at work in these transitional areas is, of course, nationalism. But nationalism can take three forms: It can be channeled off along military lines—into external adventures or in efforts to maintain hard-won independence from foreign powers; it can be used to consolidate effective political power at home; it can be used to modernize and develop the economy and social life of the new nation.

If we look at the transitional areas of the world we can see some—like Nasser's Egypt—where the primary channel for nationalism has recently been external adventure; others—like Indonesia—where the task of internal consolidation of power is incomplete; others—notably India—where the tasks of economic and social modernization are absorbing the bulk of the new nation's energies; still others—like South Korea—where defense against an external power dominates the scene and absorbs the nation's best talents and the bulk of the margin of resources above subsistence.

How does economic growth enter the picture? Economic growth is an essential condition for each of the aspirations of the new nationalist spirit. Effective armies cannot be maintained without modern industry. The old colonial dependence on the export of a few raw commodities cannot be altered without effective economic development. The interests of the commercial and industrial classes require economic expansion. Finally, standards of education, health, and welfare cannot be improved unless the economy expands more rapidly than the population. And as the new nations are formed—freed of their old colonial status—their citizens come to expect that their extreme poverty, previously attributable to the colonial power, will be rapidly alleviated.

In short, the desire for economic growth in the transitional areas arises directly from the deepest hopes and aspirations of their poitical leaders and their peoples: it is an essential means for the creation of effective modern states capable of achieving and maintaining independent status on the world scene, capable of providing a regularly rising standard of welfare for their citizens.

But it is one thing to want economic growth; it is another to create the conditions for a sustained increase in output per head. In order to achieve sustained economic growth, the leaders must organize the scarce talents and resources available to them around thae concrete, often humble tasks of capital construction; the introduction of new techniques in agriculture; the building of efficient and honest government administrations; and all the rest of the familiar agenda. In many cases the new transitional nations have emerged with no clear sense of direction, with their politics and social life still disunified, full of large visions of independence and progress, but without the clarity or the effective will to turn wholeheartedly to the great tasks of modernization at home.

It is this highly charged situation, where ambition is not matched by day-to-day performance, that Moscow and Peking are seeking systematically to exploit.

III

How, precisely, are the Communists proceeding in the transitional regions? Their general objective is to exploit the ambitions and frustrations of the leaders and peoples in these areas to disrupt the unity and cohesion of the free world in the short run and to prepare conditions for Communist takeover in the long run. Since the situation differs somewhat in each of the transitional areas, Communist tactics are adjusted to fit the possibilities, case by case.

As we have recently had a rare opportunity to observe in the Middle East, where ambitions for external expansion are strong, Communist policy seeks to inflame the nationalist passion to undertake external adventure. As it is most successful this leads in the short run to wars within the free world, tending to fracture the unity of our coalitions; and in the long run, by drawing energy and resources from the tasks of economic and social development, it leaves the areas concerned increasingly vulnerable to the domestic appeal of communism. From Moscow's point of view the sequence of events set in motion by the Egyptian arms deal could not have been a more successful short-run exercise.

Although the Middle East has been the most obvious example of this Communist technique, it is not the only example. For example, Soviet maneuvers with respect to India, Pakistan, and Afghanistan have been carefully calculated to produce maximum friction in the Indian peninsula.

Where, as in India, communism confronts a reasonably stable government, unlikely to be pushed or enticed into an aggressive war, Moscow has sought to detach that nation from the free world by associating itself with peace and, especially, with the local drive for economic development. In the short run the loans and trade agreements made by Moscow with, say, India, Burma, and Afghanistan are designed to insure a high degree of neutrality in their diplomatic behavior; and in the long run they are designed to encourage the spread of an atmosphere favorable to the development of communism in those areas. As a matter of ideological conviction, Communists believe that democratic efforts to achieve self-sustained economic growth in the transitional areas are bound to fail. They do not believe that their loans and trade are likely to represent the margin between success or failure. And so they make their friendly agreements with the present rulers while working directly and indirectly to subvert their citizens to communism. It was some such perception of Communist purposes by the Indian Government which led to the marked cooling between New Delhi and Moscow after the visit of Bulganin and Khrushchev in 1955.

A third Communist method is that recently applied in Malaya and, to a degree, in the Philippines, Laos, and Burma. By maintaining armed insurrection—even on a minor scale—the energies and resources of the transitional governments are diverted away from the tasks of domestic consolidation and the modernization of their economies. They are rendered, thereby, more vulnerable to Communist political attack.

This method is, of course, simply an early tactical phase of that employed to seize total power in China and in Northern Vietnam.

In all areas, whatever the special technique judged applicable, Moscow and Peking maintain some form of Communist Party and a heavy flow of propaganda designed to persuade men that only through communism can their ambitions for rapid economic progress and effective national independence be fulfilled. In this unrelenting effort Chinese communism has, to an important degree, supplemented and, to a degree, superseded the Soviet Union as the showcase of what communism can accomplish in an underdeveloped area.

IV

Now, briefly, United States policy. I shall not attempt to characterize what our national policy toward the underdeveloped areas has been, except to say that in a strict sense we have had no policy. The United States has moved in Asia, the Middle East, and Africa in a series of reactions to events. These events have usually been precipitated by the Communist effort to exploit the possibilities inherent in the transitional areas. In short, with minor exceptions, our policy has been to counter Communist initiatives as best we could when they have resulted in acute crises: for example, the civil war in China; the Communist attack on South Korea in 1950; the salvage of Southern Vietnam after the Geneva Conference of 1954; and now the problem, belatedly faced, under extremely difficult circumstances, of making a settlement in the Middle East.

It is evident that a reactive, convulsive policy, focused negatively around opposition to communism, has not fulfilled the American interest in the transitional areas. What we require is a steady, positive policy, which would indeed

prevent the spread of Communist power into the transitional regions, but would do so by alining American influence with the peaceful, constructive forces at work or potentially at work in those regions.

Specifically, there appear to be two major elements required, now missing from American policy.

First, we must make it as unattractive as possible for either Communists or non-Communists to seek their objectives in these regions by means of force. An ability to deliver H-bombs is not a sufficient deterrent against limited hostilities; and support for the U. N., without a United States force in being—and the evident will to use it if necessary—will not for long hold the line against the disruptive forces which may be stirred up in the transitional areas.

Second, we must make it as attractive as possible for the political leaders of the transitional nations to concentrate their own energies and the powerful nationalist sentiments of their peoples, on the domestic tasks of modernization. Here, evidently, we require a pool of loans and technical assistance available not merely for those nations who join us in military alliance or for those who have already been brought to crisis by Communist tactics, but for all those nations prepared to move forward peacefully and with reasonable efficiency in the road to modernization.

In short we need a usable stick and a readily available carrot if we are to deal constructively with the powerful forces at work in the transitional areas: a stick to convince one and all that the use of force is likely to prove expensive and ineffective; a carrot to help draw the energies and attention of men on to the great acts of construction on which the fulfillment of their ambitions depends.

The central task of American foreign policy in the underdeveloped areas is, then, to create an environment in which the use of military force is ruled out and, within that peaceful arena, then to help men face and conquer the problems which must be solved if the transition of their societies to modern status is to be achieved without recourse to totalitarian methods.

This is a job required urgently by the American interest; it lies within our military and economic capabilities, and it is consonant with our deepest national traditions and values. It is time we got on with it.

Representative BOLLING. Thank you, sir.

This morning, the first three witnesses have described some of the problems and possibilities of competition in the military, political, and economic and trade fields, which the United States faces as a result of Communist economic growth. We have asked two very able men to pursue for us the implications of these challenges for our country.

Prof. Milton Katz, of the Harvard University Law School, is going to help us identify possible courses for United States foreign economic policy. To this task, he brings some unique experiences. In addition to his work in the fields of international and administrative law, he has had a wide range of assignments. He was executive officer of the Combined Production and Resources Board before serving overseas with the United States Navy. During the period of the Korean war, he carried the rank of Ambassador, heading the United States representation in the Economic Commission for Europe, and being Chairman of the Defense Financial and Economic Committee under NATO. Professor Katz, we are pleased to have you here this morning.

STATEMENT OF MILTON KATZ, HARVARD LAW SCHOOL

Mr. KATZ. Mr. Chairman, I have a written statement which I shall submit. I will make no attempt to read it since I think that will be too long for our purposes this morning.

As I see it, Mr. Chairman, the foreign economic policy of the United States is a part of the foreign policy of the United States.

It derives its objectives from our foreign policy and must serve those objectives. It is also part of the general economic policy of the United States. It must serve the objectives of our general economic policy. Finally, since the economy is the underpinning for our Military Establishment, it must also make sense in terms of our national-security policy.

We seek, therefore, when we face these problems of foreign economic policy, to identify lines of action which make sense in terms of our foreign policy, our general economic policy, and the needs of our Military Establishment. Not only must our foreign economic policy make sense in those terms, but it must be also so considered and so applied as to make sense for each of the main contingencies which face the United States today. As we look ahead of us, it appears that we face three principal contingencies. One is an indefinite prolongation of what is sometimes called the cold war. I have been told recently the time has come to retire that term and find another form of words to use. Let's call it an indefinite prolongation of current tension and unrest. That is one of the prospects we face. The second contingency we might have to meet would be a general war. The third contingency is the possible development of an authentic general peace. It is the central purpose of the United States to achieve the third—general peace—and to prevent the second, that is to say, to prevent general war. I should also assume if any one of us in this room were to be asked to guess which one of the contingencies was most likely to develop, he probably would bet on the first.

However, the prospects are so uncertain and the consequences of the wrong guess, and the wrong judgment on these matters would be so serious that it is not permissible for us to develop a policy on the assumption that any one of these contingencies will be realized.

We have to pursue policies which will prepare us at the same time for all three. In broad terms, then, the tests which our foreign economic policy must meet are these: It must be one which prepares us for all of these contingencies, or any one of them, and it must make sense in terms of both our general foreign policy and our general economic policy.

The actual problems that will confront us from week to week and month to month and year to year as we go on are infinite in number and in variety. The process of government in this sector, as in all sectors, will be a process of reaching decisions from day to day, week to week, month to month, on an unnumbered group of concrete problems.

That raises this question: Is it possible to find certain themes, certain main themes of policy, which will make sense in terms of the contingencies I have mentioned, which will make sense in terms of foreign and economic policy, both, and which will serve as useful and workable guides for the concrete decisions which will have to be made on the concrete facts that will govern in each case? I would like to suggest that there are such themes, two main themes.

One I would call the theme of economic growth—in the United States, in the nations politically allied or associated with it, sometimes referred to as the free world, and in the areas which Mr. Rostow discussed in his statement, and which, for convenience, I shall call the uncommitted areas.

The second theme is the theme of cohesion, economic cohesion. In the time remaining to me, I should like to talk about economic growth

and economic cohesion in terms which, while general, will be sufficiently specific to make clear what I am talking about.

In regard to growth within the United States, we see a fortunate and important harmony between the primary objectives of our general economic policy and the primary needs of our foreign policy. Growth within the United States is an accepted, indeed an almost instinctive, objective of American life and has been throughout our history. It is taken for granted in almost every policy statement by any American business group or labor group or farm group or professional group. It is the theme of successive administrations, Republican or Democratic, and it has been a thread which has run through the entire course of our history.

Growth in all respects, qualitative and quantitative, is, I should say, the main objective of our general economic policy. It happens also to be a key to our foreign policy. Why?

Let me just tick off the obvious elements. In the first place, a large and powerful economy represents not only in an immediate sense the underpinning for our Military Establishment, but in an unpredictable world in which we never can be quite sure what kinds of military power we will need, a vital element in our preparation for the long pull is to have an economy strong enough, big enough, and varied enough to enable us to go in any possible direction.

In the second place, the growth of the United States economy is vital if we are to create available markets for the products of the areas which I have called for convenience the free world and the uncommitted areas. There is a great deal of talk, and rightly so, about the need for tariff reduction and the need for a wise and farsighted United States import policy. I suggest, however, that a sustained and vigorous growth in the American economy may perhaps mean more in creating the possibility of markets for the products of these other societies, than any tariff reduction which seems to be politically likely in the next 5 or 10 years. Conversely, a collapse in the American economy might well do more damage to the market possibilities of these other societies than the tariff.

I think that our friends throughout the so-called free world and throughout the uncommitted areas are well aware of the stake which they have in a steadily growing, vital and stable United States economy. This is an objective which is supported by the common consent of the entire world outside of the Soviet Communist bloc.

Now, there is another respect in which the sustained growth of the American economy is vital from a foreign policy point of view and that is this: To achieve in the uncommitted areas what Mr. Rostow has been talking about, it will be necessary for them to mobilize every resource which they have available to them. Even assuming they are successful in mobilizing their own resources, and even assuming that our friends in Western Europe are successful in mobilizing theirs, the job to be done is too large to be accomplished without the resources of the United States. After all, we do represent close to half of the economic activity of the world outside the Soviet Communist orbit today.

In addition, when we look at these areas throughout the world and particularly the so-called uncommitted areas, we have to remember one widespread and deeply felt emotion which runs through them.

It might be described simply in these terms: What was good enough for grandfather ain't good enough for me.

This has been called the revolution of rising expectations. They are not just going to be satisfied with what they had or papa had or grandpapa had. They want more. They are struck by the possibilities of modern science, modern technology and modern industry. They have gotten it into their heads that the resources of a modern industrialized society are such that it is possible at last to solve the age-old economic anxieties of man. Maybe they are wrong and maybe they are right. The point is that this is the way they think; and some indication of progress in that direction is necessary if any government in those societies is to survive. Such progress in adequate measure does not appear practicable without resources from the United States. When I speak of resources, I have in mind not only facilities and raw materials but also the principal resource of all, which is skilled manpower.

We talk of technical assistance. That is manpower. We talk of technological development. That is eventually the brains of man. There will be a worldwide shortage of these, and they have to be maximized. This again underscores the importance for our foreign economic policy of a vigorous growth, qualitative and quantitative, in the United States economy.

The growth of the economies of the free world is also vital from the point of view both of our own domestic economic purposes and our foreign policy objectives. To speak first about our own domestic economic growth, I simply want to focus on one facet of the problem. That is, the facet of raw materials.

It has been brought out to you, I am sure, by previous witnesses that in the period since 1939 the industrial growth of the world has run about 5 or 6 times more rapidly than the growth in the worldwide supply of raw materials. To state this more specifically in American terms, I should like to refer back to the report of the President's Materials Policy Commission, sometimes called the Paley Commission. You will recall that this report appeared about 1951.

The report brought out that even at that time we were already importing some part of every single metal we used in our industry except, as I recall it, two, magnesium and molybdenum. As we look ahead, we face the prospect of a growing population and a growing rate of productivity. Assuming the persistence of current rates of growth, by 1975 we will need to import about 20 percent of our raw materials and 55 percent of our metals for American industry.

Obviously, if our armament needs expand, that deficiency will be greater. It is therefore vital to the growth of the American economy that there should be a worldwide expansion of raw material supply. We can't have an expansion in raw material supply apart from the general growth of the economies in the countries within which the expansion of raw material supplies may be sought. Thus, for the necessary growth of our own economy, a general growth of the free world economies and those of the uncommitted areas is necessary.

When we pass to considerations of foreign policy, we recognize that we want these areas to be stable and independent. We want it to be possible for them to move in the political directions which will be consistent with our own. That won't be possible unless they have some realistic possibility of economic growth on a sufficient scale to commend itself to the instincts and feelings of their populations.

Now, I would like to consider what are the key sectors in which growth is necessary.

I have already mentioned one, that is raw materials. Another, I think, is equally obvious when you think of the uncommitted areas. That is food.

The 5-year plan of India, for instance, may be regarded primarily as a plan to increase Indian food production at a sufficient scale so as not only to keep pace with the rapid increase in the Indian population but if possible pass it.

The problem of south Asia is largely in economic terms a problem of food production.

Because of the immense food production in this country, and our problem of surpluses, we are in danger of losing sight of the fact that, on a worldwide basis, there is an acute need for an expanded food production, particularly in Asia and Africa.

The third sector I would stress is less obvious than food and raw materials. Yet it is perhaps the most important of all. I have already described it as quality manpower. Here, Mr. Chairman, if you will permit me, I will say some things which may be obvious, but which have to be said. The principal natural resource of any society isn't steel, oil, or coal or uranium. It is people. It is the character and intelligence of men and women. If you were to seek to strike a balance sheet of strength between the United States and its friends on the one hand and the Soviet Union and its friends on the other, you would see that speaking broadly their advantage is numerical and our advantage is qualitative. If they should ever add a qualitative advantage to their numerical advantage, our prospects would be black.

If they equalize qualitatively and retain their numerical advantage, we would be in trouble.

What is our qualitative advantage? You will say it is the organization of our industry and agriculture. What does that rest on?

You will say our technology. What does that rest on? You will say our science. What does that rest on? Our total intellectual heritage and activity.

What does that rest on? That rests fundamentally on the great traditions of the free and self-reliant mind.

What does that rest on?

A belief in the dignity of man and the fact that the function of society is to enable the individual to realize his potential qualities, his potentialities for growth. This is not only morally right, not only a beautiful thing, not only a nice thing to have, not only a thing we would love to have, it is necessary to our survival.

I will try to state this as an engineer might state it; and I hope Senator Flanders, who is one, won't think I am trespassing on his field.

In engineering terms, one might say that the test of the efficiency of a society is whether it is so organized as to make optimum use of its principal resources. If I am right when I say the principal resource is the character and intelligence of men and women, in the long run a free society is the most efficient, because, to the extent that it vindicates its own principles, it gives the maximum range to human talent.

This means that it has to remember where its strength lies. This brings me to something that may be paradoxical. At the core of our

economic problem today, and at the core of our foreign policy today, there is a problem to which I would call your attention. That is the problem of the American educational system. Not so long ago, it was suggested by a leader of our Government that we should be prepared to make available to countries throughout the world teachers of science. I am told by people who have looked into the condition of the teaching of science in American high schools that we face a current shortage of many thousands of individual teachers. The American educational system lies at the core of our qualitative growth. It has to be enlarged, greatly enlarged, greatly strengthened, greatly invigorated. In stating this, I earnestly ask you to believe that I am not just playing with words.

Just as surely as skilled manpower is the key to our winning out, so our educational system—which right now is in very serious trouble in relation to the demands being made upon it—lies at the heart of our current economic and foreign policy programs.

I have referred to economic cohesion as the other aspect of this large problem, the other of the two main themes. I am sure that some of the witnesses must have called the attention of the committee to a paper of Stalin's published shortly before his death at the time of the 19th Congress of the Communist Party in 1952. I am not going to bore the committee by repeating what you are familiar with, but you will recall that Stalin sketches out a plan of action in the economic sphere. He points out that there has been a steady disintegration in the world market. He called it the capitalist market. He pointed out that ever since the Soviet Communist bloc came into being and was enlarged by the addition of China there are now as he put it 2 parallel world markets, the Soviet Communist bloc and the free world market.

He argued that there has always been a tendency to dissension and disintegration in the free world markets. He sketched out a systematic Soviet plan designed to exacerbate those divisive tendencies and add to the disruptive influences. His plan in the economic sector was consistent with the general Soviet strategy, which Mr. Roberts described to us this morning.

It is a strategy of disruption. We have to meet it—in fact we have met it—by a strategy of cohesion. What does that mean—economic cohesion or cooperation? It is more than preaching and more than hoping. We have to identify actual concrete economic interests which the United States has in common with the nations of Europe, and Asia and Africa and South America. We have to build arrangements which give effect to those common interests. We have to identify places where our interests in fact diverge or conflict, not kid ourselves about these, and we have to build arrangements to minimize the effect of such divergences or conflicts in interest.

This brings me to the whole question of ends and means. You will notice that up to this point I haven't said a word about multilateral trade, tariff reductions, economic aid, technical assistance, private investment or any of the other things one is supposed to talk about when one talks about foreign economic policy. I have refrained up to this point deliberately, Mr. Chairman, because I think in this sector there has been some tendency to confuse ends and means. I have heard arguments about economic aid, for instance, in which the proponents talked as if it were somehow good in itself and the opponents attacked it as evil in itself. That is like arguing whether a hammer

is good or a screwdriver is bad or whether one is better than the other. It depends on what we may be trying to do; what our purpose is; what our target is. It also depends upon whom and what we have available to achieve our purpose. This problem of means is fundamental when we seek to translate aims into action. I would point out that the various means available—import policy, tariff policy, multilateral trade, monetary policy, economic aid, technical assistance—in their various forms are all instruments which if wisely used can be effective in bringing about the growth which we need and the cohesion which we need.

In the remaining few minutes I would like to talk about one illustrative aspect of multilateral trade and one illustrative aspect of economic aid and technical assistance.

As to multilateral trade:

I have referred to our shortages of raw materials, and our need for a worldwide expansion of materials. This shortage and this need make it to America's interest to encourage a flow of private investment into those areas so as to maximize the growth of those materials. It is also in America's interest to buy them. We will buy them because we will need them. This is not theoretical. George Humphrey's company, the Hanna Co., has been developing iron ore deposits in Labrador on a vast scale. I understand that Bethlehem Steel has been doing the same in Venezuela. The iron ore and steel companies are also looking for iron ore in Northwest Africa. The copper companies get copper from South America. We get uranium from Belgium. I have only to say the word "oil" and it tells its own story. Here is an opportunity for a flow of dollars. Through investment and buying by us, dollars would move into these areas of raw material supply.

Western Europe needs dollars. It has a capacity to produce things needed in the uncommitted areas. These areas themselves are hungry for growth, for national economic vigor.

Here then is a basis for a constructive pattern of multilateral trade which would pull us all together. But there are other parts of this story.

The same underdeveloped areas which desperately need this capital in many places have states of mind which are such that it is the last thing they seem willing to take. They are moved by a fervent nationalism. They are also sometimes moved by the kind of judgment which comes out of inexperience and confusion. They may adopt policies which run directly counter to their own economic needs.

We may do the same. Protectionist thought or the impact of certain kinds of raw material development on certain places within the United States may be such that we may pursue policies directly counter to our long-range interests. Western Europe might do the same by adhering to outworn methods of management and organization which increase their unit costs.

In short, here are some facts. If we handle them one way, we can turn them into instruments for pulling the whole free world together and making it strong. If we handle them another way, we can play down the alley Stalin described, and turn them into instruments which tend to disrupt the free world.

Now, economic aid and technical assistance: Here, I merely want to serve a warning against using a term such as "technical assistance"

or "economic aid" as a rubric to cover many different things, without remembering that they are different. I had the honor of being the head of the Marshall plan in Europe for a year and a half. The process of economic aid, which the Marshall plan evolved, was to my mind very different from the process of economic aid to a state like India. It was aid to a sophisticated and advanced economy. It was aid to societies where the acute need was for capital equipment and the reconstruction of intricate patterns of trade. It was aid to societies which had very skilled and experienced governments with skilled classes of public officials and management, labor, and professional categories. It was aid to a society which had already made up its own mind about what it needed, and developed a comprehensive plan for 16 or 17 nations; and it was aid to a society between which and the United States the problem of communication is relatively easy—I am not saying it is really easy, but it is comparatively easy.

When you pass to aid to India you have a very different kind of problem. You have a society whose central immediate economic need is food. You have a society whose own economic plans center on agricultural expansion. You have a society with a government which is strong for that part of the world, but less strong and less experienced than the governments of Western Europe. There is a devoted civil service, qualitatively very high but very limited in numbers. When you move out into the general population, you find much less industrial skill, management skill, agricultural skill, skilled labor, professional cadres of skill than in Western Europe. Finally, you have a society which is less clear about whether its objectives are really in harmony with ours than in the case of Western Europe. It is a society with which communication is much more difficult.

When you pass to a place like Indonesia, you come to a third set of problems. There the central economic need again relates to agriculture and food production. For this purpose, and others, technical assistance is needed. That is a word. What does it mean? It means men who can help train other people. It means the need to proceed through a set of human relationships. Among other things, this means that America's capacity to help may be much more limited than our capacity to help Germany or France or Japan or England. If somebody needs refineries or machine tools, we can give them a lot of that. But, suppose that somebody needs the kind of a man who is able and willing to live in the wet tropics for 2 or 3 years, who is not only a skilled agriculturist but who has the kind of personal sensitiveness that enables him to work with people whose whole background, tradition, and outlook are remote from his own; a fellow who can work with the people who don't speak any language that he has ever heard of before; a fellow who can adjust his agricultural techniques to working with primitive tools and with people who have very limited training. Our capacity to furnish that kind of man—and especially that kind of man who has a wife who has the same attributes—is much more limited than our capacity to furnish machine tools and refineries. There is no point in criticizing anybody about this. But we might as well face the facts of life.

Furthermore, the capacity of England, Germany, or Japan to absorb aid in the form of machine tools or refineries is very great. The capacity of a society like Indonesia to absorb the other kind of aid is

85589—57——10

limited by the rate at which training is possible. They can't absorb such aid at rates faster than we can find Americans that can help train Indonesians, or at rates faster than the trainees can learn. That limits the aid and limits the dollar expenditures.

In summary, I see it this way: It is necessary that we pursue policies aimed at growth and cohesion, in order to meet any of the contingencies which confront the United States.

Such policies make sense for our own domestic economic needs, the needs of our foreign policy, and the needs of our national-security policy. To carry them out, we have available a variety of tools or instruments—the right kind of trade and import policy, the right kind of monetary policy, the right atmosphere for the flow of American private investment and private skills that go with private investment, the right kind of economic aid, the right kind of technical assistance. It is hard to generalize about these in a useful way, except to say they are all appropriate instruments which we should be ready to use, as may be indicated by what we want to accomplish in any particular place at any particular time.

Thank you, Mr. Chairman.

(The document referred to is as follows:)

TESTIMONY OF MILTON KATZ, HARVARD LAW SCHOOL

UNITED STATES FOREIGN ECONOMIC POLICY IN MEETING THE WORLD CHALLENGE

The foreign economic policy of the United States is a part of United States foreign policy. It is also a part of general United States economic policy. It must make sense in terms of both. Since the economy also furnishes the underpinning for our Military Establishment, it must make sense in terms of United States national-security policy as well.

The problems of United States foreign-economic policy have to be appraised in reference to three contingencies: An indefinite prolongation of international tension and unrest, a possible eruption of general war, and the possible emergence of authentic peace. Most Americans would probably estimate the first as the most likely to be realized, while it is our objective as a nation to prevent the second and to seek the third. Despite our expectations and purposes, the uncertainties are so profound, and the consequences of miscalculation would be so serious, that we cannot wisely base our policies on a definite assumption that any one of these contingencies would be realized. We must seek possible lines of action which would prepare us for all three.

I believe that two large themes of United States foreign economic policy can be identified which would be valid for all three contingencies; and also make sense in terms of United States foreign policy, general economic policy, and military policy. These themes are economic growth and economic cohesion: economic growth within the United States, the nations allied or politically associated with it, and the uncommitted nations; and economic cohesion among these societies.

UNITED STATES ECONOMIC GROWTH

Significance as a common objective of domestic economic policy and foreign economic policy

Growth is an accepted objective of United States domestic economic policy. It has been a central theme of American life throughout our history; it is explicitly or implicitly assumed in the prevailing attitudes of American businessmen, labor unions, farmers, and professional groups; and it has the express endorsement of a succession of administrations, Republican and Democratic. Paradoxically, the stability and vigorous expansion of the United States domestic economy is also a primary requirement for a successful United States foreign economic policy.

Significance as a factor in protecting the United States against the threat of the Soviet Union

The growth of the United States economy is necessary to protect us against the contingency of a general war, since the economy would be the source of the

armament and equipment needed for the Military Establishment. If the current international tension and unrest should be indefinitely protracted, a high rate of growth in the United States economy would be necessary to bring time to our side; i. e., to improve our relative position as time goes on.

Significance as a factor in creating markets for the products of other societies

The American economy represents almost half the economic activity of the world outside the Soviet Communist orbit. In consequence, even a relatively minor and transient downward movement in the American economy can have multiplied adverse effects in the economies of Western Europe, Latin America, Japan, Australia, South Asia, the Middle East, and Africa. Conversely, a sustained and increasing rate of activity in the American economy can enlarge America's availability as a market for the products of these economies. Our friends throughout the free world and in the uncommitted areas are quite clear as to the stake which they have in a vigorous and growing American economy. This is a central need, supported by the common consent of the world outside the Soviet Communist bloc.

Significance as a source of human and physical capital needed by other societies

The nations of the free world and the uncommitted areas will require skilled manpower, facilities, and materials to give their peoples the standard of living which they will demand; to maintain themselves against economic pressure or the threat of economic pressure; and to achieve any sort of capacity to defend themselves against armed attack or the threat of such attack. Whatever their own resources may be or may become, the requirements will greatly exceed their capacity to meet them. Their own resources will have to be supplemented by those of the United States. In a maximum measure, it is to be hoped that these resources may flow through the channels of an expanding international trade and investment. They may also flow through the channels of Government loans, grants, or technical assistance. Whatever the channel, the resources must exist in order to be available. These resources will only be available in adequate measure if the American economy continues to expand.

GROWTH IN THE ECONOMIES OF THE NATIONS OF THE FREE WORLD AND UNCOMMITTED AREAS

Significance of such growth for the American economy

It is improbable that the American economy can grow at a satisfactory rate if the economies of the other free societies and uncommitted areas do not also expand. Our experience would suggest that a widespread depression in Europe, Asia, and Latin America would scarcely be conducive to American prosperity. Our historic experience and the commonsense of this appraisal are supported by concrete data. The problems and prospects of raw materials supply furnish a sufficient illustration. As long ago as 1951, the report of the President's Materials Policy Commission gave warning that the requirements of the United States for metals already exceeded our capacity to produce them except in the case of two metals: Magnesium and molybdenum. In substantial degree for some metals, and in some degree for all metals other than magnesium and molybdenum, the needs of American industry must be met through imports. American productivity grows steadily year by year, as does our population. Even if the years ahead of us should be years of peace, the annual domestic deficit in metals and the need for importation will continue to grow. Any acceleration in the rate of armament would intensify the shortfall. It has been estimtaed that by 1975, if present growth rates are maintained, we shall have to import at least 20 percent of our total raw materials requirements and no less than 55 percent of our requirements of metals. In consequence, the United States has a long-range need for growth in metal supplies, and other raw materials supplies, throughout the free world. The production of raw materials and metals cannot be separated from the economic life of the countries within which this production must be sought. It is unrealistic to expect the necessary expansion in these supplies except as part of a vagorous general growth in those areas.

Significance for American foreign policy and national security policy

The fundamental point has already been made that United States foreign economic policy must support United States foreign policy and national security policy. The United States has a vital stake in the stability and independence of such areas as Western Europe, the Middle East, Latin America, Japan, and South Asia. It is scarcely necessary to labor the point that these areas cannot

achieve stability or maintain their independence if their economies should be feeble and undependable. This point if underscored by what has been described as the worldwide revolution of rising expectations. To put it somewhat more simply, there is a widespread conviction among the peoples of Europe, Asia, Africa, and Latin America that what was good enough for grandfather is not good enough for them. Rightly or wrongly, wisely or unwisely, they have become convinced that modern science and technology, and the whole apparatus of modern industrial society, are adequate to enable them to take a long step forward toward meeting their age-old economic anxieties. This is one of the central political facts of our time. This surge of demand—these rising expectations—will mean grave instability and danger unless there is a sufficient prospect of economic growth to give these peoples hope that their expectations will to some degree be met.

KEY ELEMENTS OF GROWTH

Up to this point, I have spoken of growth in general, and of its significance in relation to the objectives of United States foreign policy, national security policy, and general economic policy. It seems to me also important to identify certain key sectors within which growth is critical. In broad terms, of course, we must emphasize growth in the capacity of the United States—and of the nations of the free world and uncommitted areas—to produce those goods and services which are essential to a sound standard of living, as a sound standard of living would be understood by responsible and influential elements of opinion in the respective societies; and also growth in our capacity to produce those goods and services which are in fact vital to our defense in the contingency of a general war. Within these very broad terms, I should like to suggest the need for special attention to three factors:

Quality

This, it seems to me, cannot be overemphasized. In the alinement of forces in the world today between the United States and other free societies on the one hand and the Soviet Communist bloc on the other, the essential advantage of the latter may be said to be in numbers and the central advantage of the former in quality. I am speaking in broad terms, of course, but the qualifications to which so broad a statement is unavoidably subject do not materially impair the point. This incidence of advantage recalls a fact which is often overlooked. The principal natural resource of any society is neither steel nor coal nor oil nor water nor transportation nor uranium. It is the quality of its men and women. That quality is a complex of many factors: The values by which a people lives; the distribution of character and talent within a society and the opportunity available to character and talent; the fund of accumulated knowledge and developed skills; talents of organization and operation; the organization and methods to increase and effectively transmit accumulated knowledge and skills. Our immediate qualitative advantage lies in the organization of our industry and agriculture. That in turn rests upon our technology. That in turn rests upon our science. That in turn rests upon our total intellectual heritage and activity. Our total intellectual strength rests upon the great tradition of the free and self-reliant mind. The tradition of the free and self-reliant mind is itself one major reflection of our belief in the dignity of the individual and the ultimate importance of affording him every opportunity for the fulfillment of his possibilities. In short, when we seek to determine the ultimate source of our qualitative advantage, we come back to considerations which may be deemed essentially spiritual and moral.

The same considerations emphasize the overwhelming importance of our educational system. It may seem odd to talk of moral traditions and an educational system in testimony about foreign economic policy. In fact, there is nothing odd about it. Our principal economic resource is the talents and energy of our people. Our principal capital is our human capital. We must maximize this resource and this capital. To do so, we must understand the strength which we draw from American values, and be guided by them. We must also broaden, invigorate. and steadily improve our entire educational and training system.

Raw materials

The existing deficiencies in raw materials supply and the need for their expansion have already been brought out. (See above at pp. 4, 5.)

Food

This is the central problem of economic growth in the heavily populated areas of Asia and the Middle East. The immense production of food in the United States, and the problem of surpluses here, have perhaps tended to obscure the worldwide picture. Two facts stand out. In the period since 1939, the worldwide growth in industrial production has far outstripped the worldwide rate of increase in the supply of food (as it has outstripped the worldwide increase in the supply of raw materials). In Asia and the Middle East, the so-called population explosion—the enormous rate of increase in population—has made the problem of food supply continuously critical. It must be one of the primary targets of United States foreign economic policy.

ECONOMIC COHESION

Significance in relation to United States foreign policy and national security policy

I take it that the ultimate objective of American foreign policy is a peaceful, just and workable international order, in which free societies may flourish and freemen have a reasonable chance to fulfill their potentialities as human beings. This has been expressed by successive American administrations, Republican and Democratic, as peace with justice and freedom. As an expression of the central objective of American foreign policy, it seems to me to be valid and realistic, in the sense that it expresses in governmental terms the instinctive and persistent attitudes and aspirations of the ordinary American citizen. This objective has to be translated into operating terms. In operating terms, it means that United States foreign policy should continue to seek to build political arrangements which give effect to common interests among the United States, nations allied or associated with it, and the uncommitted areas. These arrangements should also be designed to reduce the consequences of differences in interest that exist, while taking realistic account of them.

This operating foreign policy has an economic aspect. It is this economic aspect which I have described as the policy of economic cohesion. It might also be described as a policy of economic cooperation. In practical terms, this means the identification of actual economic interests which the United States and other free nations have in common and the organization of arrangements to give effect to those common interests. It also means the realistic identification of points at which the economic interests or tendencies of the United States and other free nations or uncommitted areas diverge or conflict, and the organization of arrangements to reduce their effect to a minimum. There is another element of this policy, which should also be kept in mind. Recent events have demonstrated that the Soviet Communist bloc is not monolithic, and should not be so regarded. The policy of economic cohesion within the free world may properly include elements designed to foster the breaking away from the Soviet Communist bloc of nations now within it. If and when such nations should break away, for whatever reasons and through whatever means, our policy should encompass economic measures to reap advantage from such developments.

At this point, it may be pertinent to refer to the reverse economic strategy of the Soviet Union. I assume that previous witnesses have referred to the statement of Joseph Stalin's grand plan of economic strategy against the free world, published shortly before his death, at the time of the 19th Congress of the Communist Party in the Soviet Union in the autumn of 1952. At that time, Stalin's statement was hailed by Pravda as one of the major pronouncements in the historic development of Soviet ideology. Whatever the changes by Stalin's successors may eventually prove to be, I know of no reason to believe that they would dissent from the views which Stalin then expressed. I will not attempt to repeat at any length a description with which the committee is familiar. Briefly, Stalin sketched out in some detail a systematic plan to intensify the forces of disintegration which he considered present in the international economy. He argued that two parallel world markets existed—the free world market and the economy of the Soviet Communist bloc. The growth of the latter, he insisted, meant a shrinkage of the free world market and an exacerbation of all the divisive tendencies within it. He then sketched out a course of Soviet policy designed to foster the divisive tendencies. His strategy of disruption underscores in reverse the wisdom and necessity of an American policy of cohesion.

The sorting out of ends and means

In the pursuit of these policies, it is important to distinguish among ends and means, and to work out a suitable relation of means to ends. Particular trade or investment policies or measures of economic aid or technical assistance are most usefully considered as instruments to help achieve ends, and not as ends in themselves. They can be sensibly appraised only in reference to the particular purposes for which it may be proposed to use them, and the alternative means which may be available.

The means for economic cohesion

In discussing United States economic growth, I stressed, among other things, its significance for a policy of economic cohesion. I referred to its importance for the creation of a market for the products of other free nations and the uncommitted areas; and also to its importance for the creation of an adequate supply of skilled manpower, facilities, and materials needed by other free societies and the uncommitted areas.

The other principal instruments of economic cohesion are trade policy, especially import policy; private investment; United States Government loans; United States Government grants; technical assistance; and monetary policy. For reasons already expressed, it is difficult to discuss these except in relation to particular objectives and situations. In the remainder of this testimony, I shall try to discuss certain aspects of import policy and private investment, and certain aspects of economic aid and technical assistance, on an illustrative basis, in an effort to indicate some of the possibilities and guidelines.

Multilateral trade and private investment.—I have already referred to the long-range need of the United States for growth in metal supplies, and in the supplies of other raw materials, throughout the world outside the Soviet Communist orbit. The expansion of metal production will require capital. The sources of private investment capital in America are abundant. The long-range need for an expansion in metal imports by the United States, and the availability of investment capital in the United States, could be mutually supporting. The need for imports could be made the basis of a stable American market for metals produced abroad, and the prospect of such a market could make the producing enterprises an attractive and practical opportunity for dollar investment.

In Middle America and South America, and in the emerging economies of Asia and Africa, the central need and the constant anxiety of peoples and governments is for internal development. Such development requires capital. Although local sources of capital are in some degree available, the need will be urgent for capital from external sources. An inflow of investment from the United States could help support the growth for which these societies yearn.

The highly industrialized nations of free Europe have a stake in the long-range expansion of metal production not unlike our own. In addition, they will continue to require vital imports from the United States and elsewhere in North and South America, where these must be bought with dollars. They might earn dollars by selling needed manufactures to the rapidly growing economies of Asia and Africa and Latin America, within which dollars might become available through expanded American purchases of metals and expanded American investment.

The prospect thus emerges for an interlocking network of imports, exports, investment, and exchange, flowing from available capacity and toward authentic need, to the benefit of all the participants. This prospect, however, assumes the happy realization of potentialities which in fact may never be realized. The potential can become actual only to the extent that long-range economic need can be translated into political action. Historic attitudes, contemporary passions, and local or transient needs or impressions of need may deny the possibility. In the United States, wise import and investment policy might be frustrated by the mental habit of protectionist thought and the varied impact of general measures upon particular sectors of the economy. In Asia and Africa, political judgment based upon actual need might be swept aside by fierce nationalism, a bitter distrust of any arrangement which seems to smack in any way of outgrown colonial relationships, and the confusion engendered by rapid growth and inexperience. In free Europe, exports might be impeded by the diversion of resources and the raising of unit costs through inflation and outworn habits of organization and operation.

These problems illustrate the immense and intricate reach of the implications of world trade, and illuminate the conflicting possibilities. There are factors and forces which, if they should prevail, would tend to knit the free world together in vigorous growth. There are factors and forces which, if

they should prevail, would tend to tear us apart. The outcome will turn upon the wisdom of our policies and our tenacity and skill in execution.

Economic aid and technical assistance.—In the experience of the United States since World War II, several different types of policy and activity can be identified which are sometimes lumped together under the single rubric of economic aid.

The Marshall plan represented one kind of economic aid: to advanced and highly sophisticated industrial societies, badly in need of repairs from war damage, an immense increase in capital equipment, and the reconstruction and further development of an intricate pattern of trade relationships.

Economic aid to a society like India is a very different matter. It is aid to a society in which the most acute immediate need is for the expansion of its food supplies, and within which existing economic plans are centered upon the expansion of agricultural production. It involves an economy less advanced and less powerful than those of Western Europe, and a population less highly trained and skilled than that of Western Europe. It involves a Government possessing considerable elements of strength and skill, with a broadly accepted leadership, and a highly competent if comparatively small group of public administrative officials.

An aid program to a society like Indonesia is again quite different. The emphasis is upon the development of various skills through training, including such skills as the capacity to speak a widely used language and the elementary processes of governmental operation, such as bookkeeping and accounting. There is also an emphasis upon food production comparable to that of India, but in an economy and under a governmental structure much less highly developed than that of India.

These differences have widely pervasive consequences. Perhaps one rather elementary illustration may illuminate the point. If the need of a society is for machine tools or refineries (e. g., Western Europe under the Marshall plan), the need is for a product which the United States has great capacity to supply. On the other hand, to carry out a technical assistance program in a newly emerging agricultural society in the Tropics, the need may be for personnel who not only possess important technical skills, such as agricultural technology, but who are also gifted in teaching, able and willing to accommodate themselves to the conditions of life in the Tropics, able to master the difficulties of an unfamiliar language and culture, and capable of sensitive understanding of peoples whose background and temperament are very different from their own. Although the measure of such a need in financial terms may be very much smaller than the scale of need in Western Europe under the Marshall plan, the actual current capacity of the United States to furnish the type of personnel required may be much more limited than our capacity to furnish machine tools or refinery equipment. There are comparable differences in the capacity of the respective societies to absorb particular kinds or amounts of assistance.

SUMMING UP

The economic sector is one of the major fronts on which the contemporary world challenges the United States. The challenge manifests itself in an infinite variety of concrete problems. The continuous process of coping with these problems will be more effective if it is guided by broad policies which take account of the main contingencies confronting the Nation, its central objectives, and its historic tendencies. These policies should group themselves about two main themes: economic growth and economic cohesion. These themes interlock and are mutually supporting. To carry them out, an imaginative and realistic use of all the instruments available will be necessary, with the choice of particular instruments in particular situations governed by the particular facts. The key sectors of growth are quality manpower, food, and raw materials. The key instruments of cohesion are trade policy, especially import policy; private investment; United States Government loans and grants in their many forms; technical assistance; and international monetary policy.

Representative BOLLING. Thank you very much.

Our final witness in this series is Dr. Roy L. Reierson, vice president of the Bankers Trust Co., of New York. Dr. Reierson too has degrees earned on both sides of the Atlantic. Dr. Reierson has been a consulting economist and university lecturer. During World War II, he was in the United States Navy.

His reputation as an analyst of the economy and his previous service to the Joint Economic Committee made him the logical choice for presenting to us the summation of implications for the United States economy of this world challenge which has been developed in these hearings.

Dr. Reierson, we are pleased that you would come this morning to perform this important task.

STATEMENT OF ROY L. REIERSON, VICE PRESIDENT, BANKERS TRUST CO.

Dr. REIERSON. Thank you, Mr. Chairman.

When we speak of the world challenge in the context of the present international economy, we have in mind, foremost, the conditions created by the contest between the economy of the United States and that of the Soviet orbit. I shall have to ignore matters involving military or diplomatic considerations, for although these may have a crucial bearing upon economic problems, they are beyond my knowledge or competence.

However, expansion of the Soviet economy is important not only from the military point of view; it is becoming a growing factor in international political strategy, as evidenced by the rapidly increasing importance of economic measures and influences in the struggle between East and West.

THE PROBLEM OF GROWTH: U. S. A. VERSUS U. S. S. R.

Despite the lack of adequate and reliable data, competent observers generally agree that the economy of Soviet Russia is expanding at a significantly faster rate than that of the United States. This is not altogether remarkable, since Russia is in an earlier stage of industrial development, where growth tends to be more rapid since it starts from a lower base. More pertinent is the fact that the Soviet Union seems to be raising its industrial output more rapidly even than did the United States when we were in a comparable stage of development.

This too is not unexpected; scientific and technological advances and their impact upon means of production and transportation presumably permit more rapid growth than was possible in the 19th century. Thus the notion that the American economy must expand as rapidly as that of the U. S. S. R. in order to hold its own over a protracted period would seem to ignore essential differences in the relative stages of industrial development.

A more important problem than that of matching rates of growth in the aggregate is to compare expansion in the various sectors of the Soviet and free economies. The U. S. S. R. appears to be devoting a larger share of its national economic output to investment, especially in heavy industry and equipment.

As of today, the Soviet Union, including its satellites, still lags behind the United States in heavy industry, production of energy, and output of most basic industrial materials. Furthermore in striking a balance we should not ignore the large productive resources of the free nations other than ourselves, many of which have great potentials for economic growth.

Nevertheless, the strong and continuing buildup of Soviet industrial capacity does justify giving some consideration to the effort that

would be required of the United States economy should we attempt to retain or increase our present lead over the Soviet Union.

MATCHING SOVIET EXPANSION

With our production advantage, we have good reason to believe that we can surpass the U. S. S. R. in any economic endeavor for which we are willing to marshal our resources.

However, it should be noted that the Soviet economy has been deliberately regimented to foster expansion of heavy industry at the expense of the consumer market, and that according to some experts, consequently, Soviet personal consumption per head is, in real terms, only one-fifth to one-seventh of that in the United States.

Therefore we must recognize that a program of matching the Russian growth rate in heavy industrial capacity would require a concerted national effort on our part, encompassing far-reaching changes in our use of economic resources, in our patterns of saving and investment and in our governmental policies.

In contrast to the Soviet Union, where economic decisions are made by Government fiat, the United States economy has been shaped in substantial measure by the demands of consumers, and the rates of growth in different sectors of the economy reflect the ways in which consumers wish to allocate their incomes.

If the United States were to attempt to match the Soviet rate of growth in heavy industry, consumer preferences and business judgments would have to be subordinated to decisions by national planners, whose task it would be to achieve a larger increase in investment spending and a sharp reduction in consumer buying, in residential and commercial building, and in nonessential public projects as well.

In the first instance, tax policy would probably be utilized to work toward this change. To reduce consumer spending would require increased taxes on consumption, higher rates of income taxation for the great bulk of taxpayers, possibly lower exemptions, and changes in our tax policies in order to stimulate savings. However such measures obviously are politically unpalatable and would probably fall short of what would be needed, so that we would still face large Treasury deficits, a shortage of savings and consequently a substantial increase in bank credit and the money supply. Business activity, too, would probably add to the pressures for credit expansion. In such an economy, moreover, shortages of labor and materials would be a realistic expectation, which would, in turn, contribute to a wage-cost-price spiral that would expand disposable income at the very time that more of our national output was being channeled away from consumer goods and into capital investment.

Thus, a combination of shortages and inflationary pressures would eventually confront us with the distasteful alternatives of either a powerful uptrend in the price level or a comprehensive system of economic controls which to be effective would have to be far more vigorous, restrictive, and comprehensive than any we have yet attempted.

THE NEARER CHALLENGE

At this time, fortunately, we do not face an economic emergency in our competition with the Soviet Union. Some experts have concluded that the output of the American economy in real terms may be as much

as 3 times that of the U. S. S. R., despite the latter's 20-percent population advantage. Even if the present differential rates of growth are maintained, many years will pass before the Russian economy can approximate ours in aggregate output, nor shall we soon lose our position as the world's leading industrial nation.

Consequently, I believe we need not today embark upon a comprehensive and far-reaching program to match the rate of industrial growth of the Soviet Union. In fact, I suggest that under present conditions it would be a mistake to channel all our energies and our resources into a single-minded national effort directed toward outpacing the present rate of Russian growth in heavy industrial capacity.

I submit that the real task is to develop a realistic economic policy that will permit us to gain ground in an international struggle likely to last for a long time to come.

This means building an economy which can grow soundly in all major sectors, which avoids large-scale unemployment and other setbacks, and which can flexibly and successfully meet challenges not only in the field of military equipment or heavy industrial production, but also in such fields as scientific knowledge, international investment, internatoional finance, technical assistance, and the entire range of endeavor upon which economic as well as political leadership must be built.

Obviously, the current world situation has some important bearings for United States economic policy. Perhaps the most immediate consequence is that we face the prospect of a sustained high and probably rising level of military spending in the years ahead. Obsolescence has become a pronounced feature of modern industrial society, but nowhere does obsolescence proceed as rapidly as in military equipment. A corollary is that much equipment has become more and more complex and requires ever greater skill in its operation. Thus, the cost of military preparedness is likely to continue upward even in the absence of any dire emergency, and this suggests continuing high demands on the Treasury budget.

Another requirement would seem to be an industrial establishment adequate not only to meet current production demands but also with sufficient reserve capacity to cope with the strains and needs that are likely to come upon us unexpectedly from various parts of the globe; in fact, recurring strains seem to be part and parcel of the world situation, and pose a very real challenge to our economy when they occur. I am not suggesting that national economic policy at all times should favor industrial expansion ahead of other economic or social objectives, but I do suggest that in some basic industries the problem of encouraging and facilitating expansion—presumably by way of rapid amortization for tax purposes—be considered carefully not only in the light of our economic needs alone, but also in the light of future international economic opportunities, pressures and perils.

Furthermore we need to give continuing attention to the problem of assuring a sustainable high level of capital investment, particularly in the industrial sector of the economy.

Another important task is the furtherance of education. The urgency of this goal is so well known that it surely requires no detailed comment, nor need one dwell on the implications of a failure to meet Soviet competition in supplying our friends and our customers abroad with the technicians they require in connection with invest-

ment and development projects. If we are unable to provide our modern society with the teachers, scientists, and engineers needed to sustain progress, we shall have failed to meet the most critical challenge of all.

Closely related to education is the need to foster dynamic scientific advancement. Rapid obsolescence of industrial facilities can be both an asset and a liability. If we can maintain our position as the world's pioneer in technology, we may hope not only to improve our standing in the international economic arena but also, perhaps, to have less cause for concern over industrial expansion abroad.

An important although frequently ignored point, finally, is the advantage we now enjoy through the key position of the United States dollar in international trade and finance. Maintenance of a sound and stable dollar and a sound and stable financil system which merits the confidence of the rest of the world is a tremendous asset in the challenge we face. Here again as elsewhere, however, this challenge has some important implications for United States credit policy and economic policy in general.

IMPLICATIONS FOR ECONOMIC POLICY

These requirements are not spectacular; meeting them should not be an insuperable task in our expanding economy. The underlying prerequisite, however, is that the domestic economic policy of the United States be designed to meet three general and interrelated objectives: (1) To encourage stable economic growth; (2) to minimize cyclical instability in employment and business activity; and (3) to curb fluctuations in the general price level. These three objectives are interdependent in that cyclical instability and large price movements slow down the rate of secular growth of the economy while excessively rapid expansion may make it more difficult to avert cyclical corrections in activity and prices.

Unfortunately, our economy today seems to be falling short of meeting some of the requirements for sound and stable progress. Inflationary pressures have been dominating the scene for the past 18 months. Wage rates are being marked up rapidly, costs are rising, and price increases are the order of the day. Savings have failed to keep pace with investment demands; and the Treasury budget is in precarious balance even though output and incomes are at record levels. Public-works programs are rising despite shortages of both materials and funds.

If we are not to jeopardize our prospects for sound and stable economic progress, we shall have to face up to some difficult questions. One problem is the rapid annual increase in labor costs which bears so large a share of responsibility for the rising trend of prices. Another is posed by the Treasury budget; if we are to meet continuing large and rising requirements for defense and at the same time avoid the inflationary repercussions of budget deficits, we must exercise restraint in our demands for increased Government outlays for purposes that are socially desirable but are not of pressing importance and at the same time we must resist the pressures for premature tax reductions.

Yet another problem is how to increase the flow of savings in order to meet the large needs for investment funds. In this connection,

it is disturbing that many proposals are being advocated which seek to deal with this problem by contributing further to inflationary pressures; in particular, it has been suggested that the shortage of savings could be met by relaxing credit restraint and facilitating the additional expansion of bank credit, or by having the Treasury step in to provide substantial amounts of funds for a variety of purposes and to a variety of borrowers. In the present economic climate, such measures would increase the chances of a cyclical correction and reduce our prospects for maintaining steady growth.

INTERNATIONAL ECONOMIC POLICY

In the field of international economic policy, the problems we face are even more involved than those at home, since we are here confronted with diverse economic, social, political, and cultural systems with widely differing national aims and aspirations. This is a subject about which I shall speak with brevity, diffidence and much uncertainty. To facilitate the development of the free world's natural and industrial resources, we need to share with others our scientific and technological knowledge. In addition there are continuing sizable demands for economic and financial aid, and there are many requirements and opportunities for direct investment abroad, and here we are confronted with some difficult decisions.

Government loans and grants have in many instances proven an effective tool for strengthening the economic condition of the free world as a whole.

However, our foreign-aid program should be formulated with reference to the entire budget situation, including our domestic requirements for defense and other essential purposes. An even more significant contribution to the economic strength of the free world can be made by the foreign investment of United States capital, but here again, we must realize that the expansion of our own economy has led to a growing need for investment funds at home; some recasting of foreign development plans may be needed to bring them into closer correspondence with resources that can be provided by the countries directly concerned.

In sum, our resources—material and financial—are not unlimited, and some hard choices of priority will have to be made to achieve a sensible and realistic allocation. We may reassure ourselves with the knowledge that these facts of economic life probably apply equally to the Communist world.

A dynamic and expanding American economy will be of incalculable benefit to the entire free world. We shall have to rely to an increasing extent upon foreign supplies of many basic raw materials; this will make dollars available for the purchase of the capital equipment upon which economic expansion abroad is dependent. In fact, the dollars provided by our imports will far exceed, obviously, any amounts that we seem likely to make available through loans and grants. Thus, efforts to whittle down the barriers to international trade are of continuing importance.

These efforts rest on sound economic principles but here again in formulating our trade policy we cannot ignore considerations of national defense since foreign sources of supply may be interrupted with more or less serious consequences to the American economy.

Where this leaves us with reference to the specifics of a trade policy I am not prepared and probably not qualified to say.

Finally, our role in the world economy underscores the necessity of maintaining our economy sound and activity high; efforts to minimize the fluctuations of the business cycle are crucial not only to ourselves but also to the rest of the free world.

Perhaps we should devote more of our energies to studying the problems of prosperity, which are no less real or serious than the problems of depression to which we have devoted our attention through so much of the past. Assuredly, unless we succeed in coping with the problems created by rapid expansion, we shall increase the risk of economic adversity. And this is a risk which today, more than ever before, we cannot afford to take.

My purpose has been more to raise questions that require further study rather than to suggest specific solutions to the many problems that confront us on every side. The Joint Economic Committee and its highly competent staff have, over the years, contributed much to broader understanding and enlightenment on many economic issues. If what I have said this morning has any meaning, it portends, for the committee and for its staff, yet greater activity and an even more important contribution in the future.

Representative BOLLING. Thank you, sir.

Senator Flanders, do you have some questions?

Senator FLANDERS. Dr. Roberts, you gave verbally, and I shall be able to read it in the record what seemed to me a very good expression of the Soviet purpose. I wonder if you would feel that the American purpose could be expressed concisely in words somewhat like these that our purpose is to extend the world area of prosperous freedom?

Dr. ROBERTS. Yes, sir.

Senator FLANDERS. It isn't to beat the Soviet in tons of steel. It isn't to do anything except something for the advantage of the people of the world. That is the way I would like to see our purpose expressed.

Now, Mr. Heymann, on page 2 of your document the ninth line, you spelled autarky correctly for your meaning. If you have read through my questions, you will note that it is spelled with a "ch" which has a very different meaning, and I want to assure you that my original handwritten manuscript used a "k" but somebody thought perhaps I didn't mean it. So you can mentally spell it with a "k."

Now on page 7, I am particularly impressed with the way in which you lead up to the suggestion of a "no strings" approach to aid. I think it is a very good statement of a very necessary change in policy on our part.

I was interested in your statistics with regard to Afghanistan. In fact, your statistics as a whole are a very valuable contribution to this discussion. I have been told by friends who have been stationed in Afghanistan that the contributions made by the Soviet Government are not merely for the place and situation rather extensive, but that they are spectacular and that that spectacularity has been a part of their more or less successful dealings with the Government of Afghanistan.

I am going to say a word more about grain elevators before I get through, but that I understand was quite an architectural achievement.

Mr. HEYMANN. May I interject that the Soviet export of grain elevators to Afghanistan is a good example of the political motiva-

tion of this trade. The Soviet Union's greatest problem in the current agricultural year was what to do with the bumper crop of grain that was harvested. They have no surplus position of grain elevators in the Soviet Union. It is not only a spectacular example of the size and nature of foreign aid projects but also a good illustration I think of the general point I was trying to make that this new foreign aid effort is certainly not motivated by any economic pressure to export machinery and equipment surpluses.

Senator FLANDERS. Yes.

Dr. Rostow, on page 5, the second full paragraph:

> In short, the desire for economic growth in the transitional areas arises directly from the deepest hopes and aspirations of their political leaders and their peoples. It is an essential means for the creation of effective modern states capable of achieving and maintaining independent status on the world scene, capable of providing a regularly rising standard of welfare for their citizens.

As a matter of fact, as we look around through the development of the various of these new and the older countries coming out of stagnation, can you not translate this paragraph into a sort of an instinctive aiming for autarky?

Dr. ROSTOW. I think, sir, that the initial approach to economic development of countries newly freed, newly feeling their oats, as it were, in terms of independence, was autarkic. I had the occasion to have to sit through a good many early postwar U. N. meetings and listen to the speeches of peoples from underdeveloped areas; and they had the notion, somehow, that the maintenance of their old ties of trade with the world, through raw materials and foodstuffs, was associated with colonial dependence and humiliation; and their first instincts were toward autarky.

But one of the wholesome things that happens in the world, as you know better than I, sir, as with individuals, is that responsibility and the fact of responsibility sometimes produces quite radical changes in thought. And one of the wholesome changes that has come in the thought of the economists of the transitional nations is an awareness that very few of them have the capability both to grow and to maintain autarky. The kind of box in which the Argentine got itself—that is, of cutting down its exports of foodstuffs and building steel mills, leading to a very severe foreign exchange crisis—has had a salutary effect on a good many countries. I should say that the level of 5-year planning in countries like India and Pakistan is remarkably sensible with respect to the foreign exchange problem. The old mythology—that trade in foodstuffs and raw materials destroys independence—remains to a degree; but on the whole I would say the trend in thought and policy is wholesome.

Senator FLANDERS. I am glad to hear from you on that.

On page 7—I chanced to be in India last December when Krushchev and Bulganin were there, and it was astonishing to see the way in which the Indian crowd were brought together by the Government so as to give them a good show.

I also enjoyed the privilege of seeing them off, which was likewise a good show. People came thereby every means of transportation from feet, bicycles, to camels, and the crowd was enormous.

But I think you are right in saying that there has been a perceptible coolness developing and as a matter of fact during that period every day in interviews Nehru had occasion to counteract some of the remarks of one or the other.

But while millions heard them, only tens of thousands read, so that the net result would naturally have been disastrous.

Now, on page 8, yesterday I suggested along the lines of my series of questions that the southern and eastern Asian nations running from Pakistan to Japan could develop a community of interest and that in a way they fitted into each other, not perfectly of course, and that Japan's future lay along that line, and it seemed to me to have big opportunities for India as well.

Just as one item, the Indian merchant is more acceptable in the Pacific area than the Japanese merchant and it might well be that a union of effort throughout that whole area with the food surplus and the food deficit countries might work out in such a way that Japan would not depend on underselling in our markets to maintain its economy and in the discussion yesterday some difficulties were brought out.

But I would hope that India might look on Japanese industrial development as the pattern rather than Chinese industrial development. And I offer that to the Indian Government for what it is worth.

Now, on page 9, may I ask whether in the fourth line of the second full paragraph I read correctly when I read "And support for the U. N. without a United States force in being." Don't you mean without a U. N. force in being?

Dr. ROSTOW. No, sir. I meant United States. What I had in mind there is that the U. N. is, I think, a remarkably valuable political instrument of coalition for the free world. But, if I may speak as a former U. N. Secretariat member, I am acutely aware that we should never be taken in by the magic of that coalition, independent of American policy and American force. When we can create with skillful American diplomacy a true coalition in the U. N., it is a remarkable and a powerful force. The U. N. can be the most important diplomatic instrument at our disposal to move toward unity and peace in the world. But we should not forget that its underlying strength lies not merely in the ability to get a unanimous vote, but in the fact that American force, American purpose and American diplomacy is its its cornerstone.

I think sometimes we tend to be taken in by the magic of the U. N. without realizing the extent to which what the United States does or fails to do is a determining element in its true meaning and efficacy.

Senator FLANDERS. I think I get your meaning now. You would be saying that we should not depend on the U. N. and let the United States force in being decline certainly not while the U. N. also had no force in being. Doesn't that double the bad judgment?

Dr. ROSTOW. I agree, sir. What I had in mind was something quite concrete. I am, of course, fascinated with the unique and revolutionary experiment with the emergency force in the Middle East.

But the viability of those troops under General Burns, it seems to me, hinges on two facts about the United States.

First, if the Soviet Union should move a force into that area we would take direct responsibility to counter it. Second, if Nasser or any other local force—British, French or Middle Eastern—should move against it, that force would find itself ultimately up against the counterforce of the United States. To put things into the U. N. is simply one method for making our leadership and our force effec-

tive in the world. Under certain circumstances it is certainly the best method; but it does not remove from us the responsibility——

Senator FLANDERS. May I ask whether you would have been favorable to our sending military assistance to Vietnam at the time when the Chinese came down and made it possible for the Vietminh forces to take over a large part of the country? Would you have been favorable to using United States forces at that time and place?

Maybe that is an unfair question but I think the answer is—your point of view involves a case of that sort.

Dr. ROSTOW. There are no unfair questions for professors as opposed to politicians. My own view of that question—for what it may be worth—is that if we had moved fast enough and early enough—by that I mean if we had moved directly after the Korean war—we might have salvaged northern Vietnam but not simply by a show of American force.

We were caught in a position where American money was being used to back French colonialism; and I can conceive of no military operation in that area, no realistic one—and as the Hungarian situation shows perhaps no military operation—that would have held that area for the free world if we had not, as a prior condition, created an independent Vietnam state.

Senator FLANDERS. I think you have answered your question so far as my question is concerned.

Dr. ROSTOW. I think we could have saved Indochina not by moving at the time of Dienbienphu, but immediately after the Korean war, and if we had preceded any such American movement with a cleaning out of French colonialism and all it stood for.

Senator FLANDERS. Mr. Katz, I am glad to see you again. I have seen you before. On your manuscript my first note is on the first page, the second paragraph, "An indefinite prolongation of international tension and unrest." I just want to suggest that an element in that is the atomic stalemate.

Mr. KATZ. Very much so.

Senator FLANDERS. On page 2, I was reminded there to say that my list of questions is not statements or pronouncements. The only pronouncement is that I shall have to have the questions answered in a satisfactory way before I know how to vote, so don't look at them as definite expressions of opinion. But they are important in that I do not yet know how I am going to vote and I think there are a great many other Senators, possibly even some Representatives in the same category. So the answering of questions becomes for me at least personally an important matter.

Now, on page 3—this is in general the significance of active trade between the countries. May I just interpose a remark here? I would raise the question as to whether it is not best for the world for American capital and American technical ability to develop in other low standard countries industries with which we will not be able to compete.

I am just making that as a suggestion. I am not sure but what that is the case provided we can change our domestic policies in such a way as to safeguard our own standard of living and our own institutions. And as I indicated in the questions, I do not see what the limits are for that procedure and what industries would be safe, would

be sure of maintaining their position in world competition in view of our ability to export capital and technical assistance.

I might also say that I gave yesterday Willard Thorp the task for writing for inclusion in the record his concept of how the balance of trade and the balance of payments would be attained under conditions of a fostered competition on our part which became very extensive. I may also say now I am making speeches instead of asking questions.

Representative BOLLING. This is a very brief one.

Mr. KATZ. A very good speech.

Senator FLANDERS. I will come back to questions in a moment.

These questions were brought into focus by the fact that for the first time we face the competition of this sort in a major industry, to wit, the textile industry. I have been told that I should be willing to sacrifice the small industries that are up my way, like for instance the plywood industry and other industries—I don't enjoy doing that and I protest against it. But when it comes to a major industry you have to stop and think and so it was in view of that that I drew up this set of questions.

Now on page 7 you emphasized the overwhelming importance of our educational system. I am going to make another very brief speech. Our education system is a shambles. It is in the hands of the professors and developers of a pseudoscience of education. It started with a Vermonter. It started with Dr. Dewey. He transmitted the laying on of hand to Dr. Kilpatrick who took it to Teachers College in New York. Teachers College in New York has spread it over the whole Nation. It is entrenched. It is so entrenched that local endeavors to get it out are sabotaged. Now I just can give you some of the examples of this as I have seen it up in my own State.

I have for instance four grandchildren in high school. I don't know about the fourth but I do know that three of them in high school are writing rather good theses and essays and are not corrected in spelling. They communicate, that's all that is necessary, the hell with spelling. They are able to communicate.

Furthermore the leading citizens of the town in which I live, Springfield, Vt., were hypnotized into a statement of educational policies which includes this: That examinations shall be student based and not subject based. In other words it is of no great importance whether a child really understands the mathematics so long as he is working hard at it. If so, he gets a good grade. But as to whether or not he has achieved a satisfactory degree of proficiency in mathematics is not of any particular interest to the school on the basis of that situation.

It has gone beyond Teachers College. It is further development which is shown in a book recently published by Dr. Brumbaugh who is the head of the college of educational instruction in New York University. He carries the thing to its next step. There is no truth to be instilled. Everything is arrived at with the students and scholars by consultation and discussion and decision, and our children on the basis of that book and the already developing features of the present practice are being trained, without our desire, without our intention, for communal living, not communism but for living as the ants live in anthills. And it is a terrific situation. If one one-hundredth of the

activity we have been putting into fighting Communist infiltration was applied to fighting this communal development we would be accomplishing something that this country very badly needs.

Mr. KATZ. Hear, hear.

Senator FLANDERS. I am going to ask questions now.

Page 8, the primary importance of food, Mr. Katz, you have stated there very profoundly and that is particularly true for India. I have been somewhat fearful that they were beginning to think too much in terms of tons of steel and were not in their second, and particularly the prospective third, 5-year plan, focusing it down on the well-being of the individual.

They have birth-control clinics in the jungle now, but how good they are I wasn't able to learn.

Now on page 15:

> The need may be for personnel not only to possess technical skills, agricultural technology, gifted in teaching, able and willing to accommodate themselves to the conditions of life in the tropics, able to master the difficulties of unfamiliar language and culture.

That is a very important set of requirements. The place, where so far as my knowledge goes, that that has been best carried out is by the Australians in the mandate in New Guinea where they have been doing a perfectly wonderful job along those lines.

We go at the thing too superficially by far, and there has to be a degree of depreciation, as well as new schools, which we have not yet put into the thing.

I am glad that you brought those points out.

Mr. KATZ. Senator Flanders, might I interject a comment? Would you permit me to do so on two of the questions?

Senator FLANDERS. I was supposed to ask you a question, so you are entitled to answer. Yes.

Mr. KATZ. I will try to answer two questions implicit in the admirable statement you made. First, when you asked what kind of industries we can safely foster which will not potentially create too great competition, I would like to make two points on that only, Senator. The first I have not previously made, and that is this: I suggest to you the great danger of putting that question and examining it against a static background. For example, take a textile mill in India. If you assume that the American economy stays where it is and does not move, and that the Indian economy stays where it is and does not move, then a cotton-cloth mill in India might possibly be a threat to the cotton-cloth mills in North Carolina or Massachusetts. If you assume an Indian economy that is vigorously growing and an American economy that is vigorously growing, a cotton-cloth mill in India might never even be noticed by American manufacturers in North Carolina or Massachusetts.

If you have a general growth in India of which this cotton-cloth mill would be just one piece, if you look ahead to a growing, free world economy, then we will not face the kind of problem that we envisage if we unconsciously assume the continuation of present levels of activity. I think this is the first point I would like to stress. The second point I would like to mention is to repeat again what I did mention in my testimony. That is this: Whatever else we may or may not wisely permit ourselves to import, I see no room for reasonable

difference of opinion in the raw-material sector; that, we have to have.

Senator FLANDERS. Yes.

Mr. KATZ. The other point I would like to make would be on your comment about education. I would like here to take an opportunity to make a positive suggestion. In the last analysis an educational system depends upon teachers and students. What we desperately need if we are ever to solve the education problem in the United States, both as it is and as it will be, will be to make the teaching profession very, very attractive to first-rate people.

Senator FLANDERS. May I just interpose a remark there? And make it the ability to transmit a subject to the student the test of the ability of a teacher rather than the degrees he has obtained in a pseudoscience?

Mr. KATZ. I would agree with that.

If you have first-rate men and women in the teaching profession, then any tendencies to pseudoscience will be kept in hand. If we can get and keep enough first-rate people in the teaching profession the elements of rubbish which may now be present in our educational system will gradually be eliminated or minimized. This brings me to the question of how we can get and keep enough first-rate men and women in the teaching profession. I will ask you to permit me to speak a minute or two on this. It means you have to make the profession attractive. In the context of American life, that means a combination of money and social status, and they are interrelated. As to the salary level question, I will only repeat what I was told a businessman once said about the matter which is the best summary I ever heard. The question was: What is the right level of compensation for teachers at all levels of American life? His answer was: "Well, when your boy is trying to decide what he should do with himself and when you say, 'Son, have you thought of teaching?' then our salary levels will be right, and not until then."

Representative BOLLING. I heard, when I was in my district, the president of St. Louis University who is a member of the President's Commission on Education Beyond the High School, state that among their findings they had learned that in the Soviet Union they placed the college teacher second highest in terms of monetary reward. The only person who received higher awards in material rewards in the Soviet Union was the newspaperman, the journalist. I didn't have a chance to verify this. He said that the average college teacher, college professor in the Soviet Union was paid the equivalent of $25,000 a year. And it seems to me that this emphasis is precisely the point that you have been talking about.

Since I did come out of the teaching profession, it seems to me although I never took any of these courses and consequently was qualified to teach only in colleges and not public schools—it seems to me that it is important, since the record is so full of this, to point out that although I am no expert on Mr. Dewey, that Mr. Dewey was after all an extreme reaction to an extreme, and the dilemma that American education faces today, if I understand it, is probable to digest and create a new synthesis of the point that Mr. Dewey tried to make: that we should pay some attention to the personality and not just to the subject—with the old idea that we should pay attention just to the subject. I would be happy to report to the Senator that perhaps because we are so far out in the middle of the country when I

visited a number of high-school classes in the last month I found that they knew a great deal about subject matter but that there was some attention also being given to their personalities.

Senator FLANDERS. Well, I think, Mr. Chairman, that I have spoken enough. Mr. Reierson also touched on the subject of education and on the outward purposes of the Soviet Government and I think I will just end by saying that I think we should make clear that the competition which we are engaged in, the world over, is one of the well being of people and not tons of steel.

Representative BOLLING. Dr. Rostow, I have one question. It has already been discussed. In your statement on page 9 in the second full paragraph. It seems to me that the really key phrase you use is in effect in parentheses. It is between dashes: "And the evident will to use the force if necessary."

I am curious to see if your reaction has been the same as mine, that for various reasons the impression has been abroad intermittently, not always, that this country did not have the will to use force if necessary.

Would you agree that that impression was fairly general in the world, not only in the bloc area but also in the underdeveloped areas?

Dr. ROSTOW. I think it is very much so; and I agree that the question of "evident will" is decisive. We do have obviously in all three of our services forces which could be mobilized for limited hostilities if necessary. I think what has happened, Mr. Chairman, is that the Korean war left on our Nation a tragic set of moods. At a time when it was perhaps the least appropriate attitude to take, the notion spread that, well, this is the last limited engagement we will ever get involved in. If we have another one, it is going to be big. We have seen a withdrawal from the notion that limited force might be necessary. The reason it is tragic is that at just this phase the atomic arms race moved into a more acute stalemate. The real lesson to be drawn from the Korean war was not that the Korean war was a mistake, but, like all the other wars we have been involved in, it was avoidable if we had created the deterrence in advance. I am relatively confident that even limited hostilities can be avoided—perhaps not completely, for this is going to be a turbulent 50 years—but by and large I think that we can deter limited wars by the same means we intend to deter big wars; namely, that, in the end, everyone is convinced that we have the capabilities and the will to use them. Our drawing back after the Korean war has made it very hard, for example, to built SEATO, because the members of the SEATO are not at all persuaded that we would be there beside them in case of limited hostilities. That is why Laos and Cambodia are flirting with Peking.

The impression is quite widespread around the world that the United States has interpreted the meaning of the Korean war in the sense that it wants no more of limited hostilities. That, as we know, is the setting in which you are most likely to find limited hostilities.

Representative BOLLING. Then in effect what you are saying at least by implication is that, disregarding for the moment the argument of whether tactical atomic weapons can take the place of conventional forces that we have to have in being not only the deterrent resources to prevent the so-called big war but also the deterrent forces in being capable of preventing the little ones and if that be the case, that then neither one will eventuate.

Dr. ROSTOW. That is the way of maximizing the chance that neither will come about. That's a view that goes all the way back to George Washington in our history.

Representative BOLLING. And further than that. Then in effect also you are saying that unless these two situations are met, that a foreign economic policy may postpone but that in the long run it will not succeed in the absence of these types of forces in being and the will to use them.

Dr. ROSTOW. That is my view, sir; and, as an economist who has had to write about these matters, I have felt very strongly that I should never talk about economic foreign policy without stating again and again that all of our creative objectives cannot be achieved unless American force is used—inside or outside the U. N.—to create a ring of stability; and that requires a spectrum of deterrents which embraces limited as well as all-out war.

Representative BOLLING. Finally, is there any question in your mind but what we have an economy strong enough today to support the forces necessary to achieve this objective physically?

Dr. ROSTOW. I would, of course, say yes, Mr. Chairman; but I think we should be aware that you don't get anything without some cost. I have no doubt that we can swing what we must swing militarily and in terms of foreign economic policy. But I think the questions raised by Mr. Reierson are real questions; and they demand that the Nation as well as the Congress and the executive branch make up their minds how important these objectives—which look to be the conditions of our survival—are; because there are costs.

Representative BOLLING. Mr. Katz, on the subject of education again, from what you said and from reading the paragraphs on the same subject in your paper, I get the impression that you would feel that it is not only very important to acknowledge as we are all doing today the extreme importance of the scientists, but also that then with the emphasis that you put on it, we not only need effective education in the scientific and technical fields but we also need a thoroughly effective educational system in the field of general education, liberal arts and so on.

Mr. KATZ. Completely, Mr. Bolling. As a matter of fact, just within the last few weeks I discussed this problem with a distinguished figure in engineering education; and he stressed the need for engineering education to turn out broadly cultivated engineers with a grasp of fundamentals and not mere technicians. You can't separate the two. Our science grows out of our total intellectual framework. Einstein, according to his biography, came to the development of his theories of physics initially from reading Hume and then he worked out the mathematics when he learned he needed that as a tool for his physics.

Representative BOLLING. We have to arrive at a new synthesis—a new system in education which reconciles the old approach of stressing the subject matter and the new approach of stressing personality.

Mr. KATZ. Yes. I am concerned with how we can translate this idea into action, not the development of an argument between the Deweyites and the non-Deweyites about what kind of educational system should we have, for then you will have a lot of argument but no educational system.

In 1940 we needed to develop an Army and Navy which turned out to be 16½ million men. The hard core of that was the commissioned

officers and noncoms. Everything we did in that situation would not have succeeded had we not had this core of officers and noncoms. The core of this job is teachers. If we get twice as many teachers and teachers that are twice as good, you will get the job done. If you get that done, I will be willing to argue about the rest of it. Without that, you won't get anything done.

Representative BOLLING. I agree with that.

Is there any other comment that any member of the panel wants to make?

Mr. HEYMANN. I would like to express my gratification with one aspect of the testimony given today and that is the exceedingly successful way in which Dr. Rostow and Mr. Katz have focused attention of the committee on the basic problems of what are the ends of United States foreign policy and have gotten us out of the rut of constantly looking at what Soviet tactics are and how we might respond to them.

I can afford to say that, Mr. Bolling, because I am responsible this morning for having testified on what the Soviets have been doing and I feel a little guilty that I could not also join into this refrain.

But I feel that this is where the solution to our problem lies: In a further consideration of the real ends of United States policy and how they can be achieved.

Representative BOLLING. On behalf of the committee I will say this has been to me at least one of the most interesting and stimulating sessions I have ever experienced in my whole life. Each member of the panel deserves our gratitude and thanks.

With the end of the discussion this morning, this present series of hearings is being closed. I am sure I reflect the sentiments all five members of the subcommittee will have when they study the record of these proceedings, in saying all of our witnesses have made a distinct and important contribution to our understanding of the problems of world economic growth and competition. The printed record will be widely circulated, and should be but a first step toward more complete exploration of these vital issues.

The Joint Economic Committee is concerned with steady and sustainable growth of the United States economy to promote the economic well-being both of the Nation and of all its citizens. This hearing has already demonstrated that there are few aspects of our economic policies which will not be markedly affected by worldwide developments and which must not take world developments into account.

This simple and important truth was amply illustrated earlier in the year when our study of defense essentiality and trade demonstrated the dangers of setting economic policies without a full regard for their effects on our economic relations with all the world. In a sense, the present study is in part complementary. Events abroad, we have seen, will affect the prospects for our domestic economic requirements, and our policies at home will have to reflect an awareness that our national economic problem is a total one, not a series of isolated and unrelated situations.

Gentlemen, I thank you again.

With that, the hearing is closed.

(Whereupon, at 12:50 p. m., the hearing in the above-entitled matter was closed.)

APPENDIX

Economic Consequences of Disarmament

By Dr. Grover W. Ensley, Executive Director, Joint Economic Committee, United States Congress,[1] Before the 15th Stanford Business Conference, Stanford University, July 23, 1956

A principal objective of United States foreign policy is securing the peace and prosperity of the world. As a major step in attaining this objective, the Nation has sought world disarmament whenever the objective bases for disarmament existed.

Disarmament was a major item in President Wilson's 14 points. During the 1920's the United States disarmed to a significant extent and maintained a minimum Military Establishment during the 1930's. Other nations increased armaments despite efforts by Presidents Hoover and Roosevelt to obtain their cooperation through the Disarmament Conference of the League of Nations. Following World War II, President Truman consistently worked for disarmament through the United Nations. The Communists' invasion of South Korea in the summer of 1950 found the United States and the Western World's military preparedness woefully inadequate.

After the armistice in Korea, the United States Senate passed unanimously on July 29, 1953, Senate Resolution 150, which states: "That it continues to be the declared purpose of the United States to obtain within the United Nations, agreements by all nations for enforceable world disarmament."

Over a year ago, President Eisenhower appointed Harold Stassen special assistant on disarmament, with Cabinet rank. Mr. Stassen has been seeking agreement for an exchange of military information between the United States and the U. S. S. R. as a first step toward a comprehensive and effective system of inspection and disarmament. The continuing intense interest of the Congress in disarmament is reflected in its creation a year ago of a Special Senate Subcommittee on Disarmament under the chairmanship of Senator Humphrey.

This record over 4 decades gives clear evidence of the sincere hope of Americans for disarmament and the use of our resources for peaceful purposes. Every effort toward this end should receive the wholehearted support of all citizens. We are not blind to the tremendous problems in international relations which must be overcome to make world disarmament feasible. On the other hand, it is surely not premature to give serious consideration at this time to the consequences of achievement of a truly peaceful world.

One of the most important of these consequences, I believe, will be a significant change in the character of the American economy. Such a change will present problems requiring adjustments both in public policy and in private management of economic affairs. More important, it will present us with opportunities for making tremendous advantages in the material well-being not only of the United States but of all the world.

The American economy today is strongly influenced by the necessity for maintaining a large Defense Establishment. It is difficult to identify any area of public policy in which the formulation of those policies has not been determined, at least in part, by defense requirements. These requirements have affected the extent and character of our economic growth, by virtue of their emphasis on development of certain types of industrial capacity. Competitive relationships and other basic structural elements of American industry have reflected the impact of large-scale defense production.

Defense needs have limited the extent to which all levels of Government have been able to provide the public services demanded by a growing population.

[1] The views expressed are those of the speaker and do not necessarily represent the views of the Joint Economic Committee or individual members of that committee.

Technological advance has been extensively based upon and conditioned by the Federal Government's defense program. Our tax and monetary policies have been influenced by the economic requirements of defense. The recent hearings on defense essentiality and foreign economic policy by the Joint Economic Committee's Subcommittee on Foreign Economic Policy, developed the tariff policy issues raised by defense considerations. Clearly, the elimination of defense mobilization or its deemphasis will profoundly affect our economic life.

Some profess to see in this situation the basis for an alleged artificial emphasis in the United States on military preparedness. According to Soviet propaganda, the economy of the United States is dependent on substantial arms spending. In the words of the new Soviet Foreign Minister, Mr. D. T. Shepilov, the economy of the United States "demands constant militarist stimulation." Because of this the Soviets claim all peace efforts on our part are insincere. This propaganda is aimed particularly at the great uncommitted regions of the world.

Statements like this reflect ignorance of a basic characteristic of the American people. This is, as Congressman Mills, chairman of the Joint Economic Committee's Subcommittee on Tax Policy, phrased it, "our perpetual dissatisfaction with present achievements, our alertness in recognizing problems and our welcome acceptance of the challenge they present, and the nearly universal conviction that better ways of living are to be had if we apply the proper effort, imagination, and creativeness in our undertakings—these attitudes are the wellsprings from which our material progress flows." Because of this characteristic we do not shrink from, but rather welcome, the challenges which disarmament poses. Our focus is primarily on the opportunities it will present.

THE ECONOMIC COST OF DEFENSE

We can get a broad perspective on the possible economic consequences of disarmament by examining the economic costs of defense.

In the 10 years since World War II, the Federal Government has spent $310 billion on goods and services for national security. Major national security expenditures are currently taking about 10 percent of gross national product. (See table 1.)

Out of total budget expenditures of about $66 billion annual rate, some $41 billion (or 60 percent) is for national security, with about $12 billion going for procurement of aircraft, ships, tanks, and other military equipment.

Manpower requirements of our present defense effort total between 6 and 7 million persons. About 2,865,000 persons are in the Armed Forces and 1,180,000 civilians are employed by the Department of Defense and related agencies. In addition to these more than 4 million Government employees, many millions in private industry spend all or part of their time on defense orders. The military aircraft, shipbuilding, and electronics industries alone would account for over 1 million full-time defense workers. On the basis of the average annual dollar output per worker, between 2 and 3 million workers were required to produce the $20 billion of military goods purchased by the Federal Government in 1955. (See table 2.)

The real costs of armaments and defense, however, are better expressed in terms of the additional advances which might have been made in the civilian sector of the economy, had it not been necessary to allocate resources to defense production.

For instance, the cost of 1 destroyer is enough to provide new $10,000 homes for over 3,000 families. The price of 1 modern heavy bomber would provide hospital facilities for a population of over 125,000 people. The cost of 1 modern jet fighter would finance 4 years of college for over 100 young people. In 1955, about 2 percent of steel shipments, 3 percent of copper, and 9 percent of aluminum shipments went into defense production. Although these percentages are small, they represent the commitment of substantial quantities of resources to production that is not available for consumption and which does not add to our industrial capacity. (See table 3.) Communist aggression, with the persistent threat of its renewal, has cost us—and the rest of the world—the higher real living standards, including leisure, educational, cultural, and recreational opportunities, which would have measured our economic potentials in a peaceful world.

In the broadest sense, therefore, the principal economic consequence of disarmament would be the opportunity for a major reorientation of economic activity toward more complete satisfaction of the virtually infinite variety of human wants. We must, realistically, expect that this reorientation will present significant problems and require major adjustments, both in macro- and micro-economic terms. By careful study of anticipated problems, we will better be able to employ

the varied and highly effective instruments we now possess and to develop new instruments for effecting these adjustments.

AGGREGATE ADJUSTMENTS TO REDUCE DEFENSE OUTLAYS

Significant reductions in military spending have occurred twice in the past decade. After World War II defense spending was reduced by $54.7 billion between 1945 and 1946. Under the impetus of extraordinary domestic consumer demand, outlays for relief, and capital requirements in many war-torn areas of the world, conversion was very rapid. Measured in current dollars, gross national product fell only $4.4 billion. (See table 1.) In constant prices the decline was more significant, although full employment levels were maintained because of voluntary withdrawals from the labor force.

The second adjustment, occurring at the end of the Korean war in mid-1953, was complicated by a related inventory adjustment. Not only was the level of defense spending reduced from $51.5 billion in 1953 to $43.0 billion in 1954, but there was a significant shift in composition of defense expenditures from guns, ammunition, and tanks to larger outlays for research, development, and production of new offensive and defensive weapons. Gross national product dropped $2.5 billion from 1953 to the recession year 1954, but production reached a new high of $390.9 billion in the following year. (See table 1.) Monetary and fiscal action was helpful in easing the impact of reduced defense spending.

The successful post-Korea adjustment points up the strength of our overall economy in adjusting to lower levels of defense spending. It appears that gross national product for 1956 will be close to $410 billion. The largest portion of this product, roughly $265 billion, is being purchased by consumers. Federal, State, and local governments are buying nearly $80 billion and business purchases of new capital goods are close to $65 billion. Net foreign investment will be small. It is clear that in the context of these gross national product components the economy as a whole could successfully adjust to quite substantial cuts in the current $41 billion level of defense spending.

The sheer magnitude and infinite variety of unsatisfied human wants which have been postponed because of defense demands are convincing evidence that our economy would have little difficulty in finding outlets for resources released by reducing defense outlays should disarmament ever become possible. Not only do these wants exist, but we in America have demonstrated the know-how, ingenuity, and drive to translate wants into satisfactions.

Another significant factor underlying the expansion of the American economy is our rapidly growing population. But of even more economic significance than the growth is the changing age characteristics of the population. The demand forces set in motion by these population trends stagger the imagination. Business opportunities are unlimited if this challenge is translated into expansion programs.

It would, of course, be impossible to inventory or list all of the many private and public wants which might be taken care of in the happy contingency that defense outlays could be reduced. A few should be mentioned, however.

Additional housing is one of the most apparent wants growing out of the expansion of population in this and future decades. It is anticipated that in the years to come new family formation will give rise to demand for about 900,000 new nonfarm houses, while replacements will account for an additional 500,000 units, or a total of 1.4 million new nonfarm dwellings annually.

Public and private urban redevelopment programs might be expanded. Substantial expenditures might be made for slum clearance, improving housing standards through replacement and rehabilitation of substandard dwellings, and for streets, parks, playgrounds, and other community facilities.

The Nation's school construction needs by 1960, according to estimates collected by the White House Conference on Education, vary from 200,000 classrooms to nearly 500,000. The amount which should be spent between now and 1960 for additional schools is estimated to range from $10 billion to $15 billion. Such a construction program would, of course, accentuate the present shortage of qualified teachers and intensify the demand for trained people in this profession.

Official State hospital plans prepared under the Hill-Burton Act of 1946 showed on January 1, 1956, an estimated 1,118,000 acceptable hospital beds in non-Federal hospitals. This compared with the 1,968,0000-bed standard set by the medical profession. To meet this standard would call for outlays of approximately $14 billion.

Since 1949, when the Joint Economic Committee published its inventory of need for highway facilities, totaling $40 billion, it had been evident that a highway improvement program is necessary. It is contemplated that annual Federal, State, and local expenditures for roads and highways will be increased under the 1956 highway bill from the present level of $4.5 billion to about $8 billion per year. Additional billions will be needed to meet rising standards for highway transportation.

Federal support for research and development in a variety of areas is estimated to represent approximately 50 percent of total expenditures in this country for research today. Fiscal year 1957 Federal expenditures are estimated at $2.6 billion. Eighty-four percent of this total is for major national security activities. One-fifth of this amount goes to the Atomic Energy Commission, with only a small fraction allocated for development of peaceful applications of nuclear energy.

Total research expenditures of the Department of Health, Education, and Welfare in fiscal 1957 are budgeted at $116 million, representing about 5 percent of total Federal research expenditures. Government expenditures for military research exceed its medical research by 16 to 1. One can only speculate as to the benefits accruing to mankind throughout the world if this ratio could be reversed.

During the past decade there has been a clarification of responsibilities, the establishment of machinery, and the development of techniques whereby Government and private industry can with greater confidence tackle aggregate economic adjustment problems in the future. Under the Employment Act of 1946 the Congress declared that it is the responsibility of the Federal Government to "promote maximum employment, production, and purchasing power" with the cooperation of industry, agriculture, labor, and State and local governments. The effects of this legislation have proved a stabilizing force in the economy by providing confidence both for business and consumers that maintaining high levels of economic activity is our common goal.

The changed complexion of the economy resulting from substantial reduction in the defense program might well occasion significant changes in both our tax system and monetary policy. Apart from these revisions, rapid reduction in defense spending would call for prompt compensatory fiscal and monetary action to the extent required by inadequacy of private demand. The success of such compensatory policy over the past 10 years and the confidence that timely action would be taken to maintain employment have done much to minimize fluctuations in economic activity.

The most effective stabilization device to meet a substantial drop in aggregate demand is fiscal policy. If a cut in defense spending were to result in a deficiency in aggregate demand, other Government outlays might be increased, taxes reduced, or both, depending on the value judgments of the country as a whole with respect to public as opposed to private spending. A decision to rely on expansion of private rather than public activity would call for tax reduction in order to increase business and consumer purchasing power. The effectiveness of such action in stimulating increases in private demand has been repeatedly demonstrated in the postwar era. Favorable budgetary conditions such as the $2 billion surplus in fiscal 1956, would facilitate tax reduction.

Alternatively, reduction in defense outlays would provide the opportunity for expansion of long-deferred public services and facilities, such as schools, hospitals, and highways, demanded by an expanding population. With the prior claim of Federal defense programs removed or reduced, State and local governments would better be able to solve major problems of financing public projects made possible by the material and human resources thereby released.

Expansion of private demand would be facilitated by making money and credit more readily available at lower interest rates. The Federal Reserve System can quickly increase bank reserves, thereby reducing the costs and increasing the availability of credit, by lowering rediscount rates, by reducing reserve requirements of member banks, and by purchases of Government securities through the Board's Open Market Committee.

There is increasingly widespread appreciation of the built-in stabilizers which operate automatically to maintain disposable personal income. On the expenditure side are unemployment compensation, old-age and survivor's insurance, agricultural payments, grants-in-aid to States, and other programs. Our progressive Federal income taxes are important automatic stabilizers on the revenue side.

Increased foreign investment in a period of reduced defense spending would provide an opportunity for economic growth and expansion of our own as well

as the economies of other countries. Political and economic uncertainties created by international tension represent a major deterrent to private investment abroad. Substantial alleviation of these tensions is a basic requirement for a general reduction in armaments and deemphasis of our defense program. Accordingly, we may look forward to a higher level of private foreign investment when reductions in defense spending become feasible.

The Federal Government could contribute to expansion of this investment by such revisions of foreign economic policy as would be made possible and necessary by the changed international conditions. Direct participation by the Government might also be desirable, at least initially. For example, pooling private capital and public funds to provide a worldwide industrial development fund might be a useful approach, particularly in connection with such types of industrialization programs as atomic-energy development. Such industrial advance in the present underdeveloped countries would afford vast new opportunities for increased private foreign investment, with resulting improvements in levels of living. What President Eisenhower said in April 1953 is still true today:

"This Government is ready to ask its people to join with all nations in devoting a substantial percentage of the savings achieved by disarmament to a fund for world aid and reconstruction. The purposes of this great work would be: to help other peoples to develop the underdeveloped areas of the world, to stimulate profitable and fair world trade, to assist all peoples to know the blessings of productive freedom."

We must anticipate that the change in the character of the economy resulting from substantial reduction in our defense program would require revisions in other areas of public policy. The implication of such a reduction for Federal policy with respect to the agricultural and natural resources sectors of our economy, for example, might well be of broad significance. These implications should receive the closest attention at all levels of government and by the executive and legislative branches of the Federal Government in particular.

MICROECONOMIC ADJUSTMENTS

As I have suggested, we can be quite confident of the effectiveness of broad Government policies in providing appropriate adjustments to fluctuations in total demand resulting from substantial cuts in defense spending. The more difficult problems, we must anticipate, will arise in connection with the short-run adjustments to be made by specific industries, localities, and sectors of the economy in response to basic changes in the economic setting.

As we all know, the economic impact of our high level of defense spending does not fall evenly on all segments of the economy. Similarly, the consequences of disarmament would vary widely. In some cases, required adjustments would be modest, while in others far-reaching adjustments would be called for. Apprehension about the impact of reduced defense spending on a particular industry, therefore, cannot be dismissed by assurances that, in the aggregate, the economy will continue to maintain a steady rate of growth.

There is a tendency, however, on the part of some members of the business community to express apprehensions about their own business in the broader terms of the entire economy. For example, the president of the General Dynamics Corp. recently said, "Now, I do not wish to imply that the defense industry is responsible for our present prosperity. But, I do wish strongly to emphasize again and again that if * * * there should be any sudden and drastic reduction of defense expenditures, we should have the most serious domestic repercussions." I do not suggest complacency about the possible severity of aggregate adjustments, but I do urge caution with respect to conclusions based upon the outlook for any one company, industry, or locality in the economy.

The type of problem and required adjustments which may well be faced in a particular situation are, perhaps, best illustrated by reference to the aircraft industry. Currently, military orders comprise about 90 percent of total sales in that industry. Drastic reduction in such orders, as part of a general reduction in defense spending, therefore, would pose the question whether nondefense demand would be adequate to maintain substantially full and profitable utilization of the resources now committed to aircraft production. If such demand would be forthcoming, the industry would, in general, be faced with only minor problems in shifting the use of present capacity.

On the other hand, in the apparently more likely case that civilian demand for aircraft output would not be adequate, the industry would be faced with the alternatives of major shifts in resource use, or if present resources are too highly specialized, liquidation of existing capacity.

Such adjustments cannot be lightly regarded. They may well have significant consequences not only for the management, employees, and shareholders of affected companies, but for entire communities.

On the whole, the best assurance that such adjustments will be most readily effected could be afforded by public policy aimed at substantially increasing the mobility of all types of industrial resources—labor as well as nonlabor. This objective involves broad considerations of the effectiveness of antitrust policies and of our business and labor information and employment services. In the latter regard, various agencies of the Federal Government should be prepared to make information about investment, business, and employment opportunities widely available. Serious thought should also be given now to methods for assisting relocation of resources, both industry- and location-wise.

Area redevelopment programs may offer substantial assistance to localities faced with unemployment and unused industrial capacity as a result of reduction in defense spending. At the Federal level, legislation to provide a comprehensive approach to such local adjustment problems, introduced by Senator Douglas and others, is currently being studied by Congress. Such a program would provide for industrial loans, public-facility loans and grants, technical assistance and information for business, and vocational training and retraining subsistence benefits for individuals. In many instances, major advances in the solution of local problems could be made by State and local development commissions. All such programs should, of course, give primary consideration to obtaining the most efficient use of resources. Subsidy programs immobilizing resources which could be more effectively employed elsewhere in the economy, should be avoided.

The cooperation of business, agriculture, and labor would also be helpful in readily effecting adjustments. Changes in the complexion of the economy resulting from deemphasis of defense may well be reflected in unevenly distributed changes in productivity, relative prices, and profits. A nondefense economy, in brief, will probably produce a significantly different product mix from the present. Resistance to change in economic relationships, insistence on the defense-produced status quo will serve only to increase the difficulty in effecting adjustments to attain maximum overall efficiency in the use of resources. Thus, even though broad Government policies might, in such a situation, provide for full employment of these resources, we would not be realizing the Employment Act's objective of obtaining maximum results from economic inputs.

Clearly, a great deal of analytical work remains to be done in appraising the microeconomic impact of future reductions in defense outlays. The executive branch of the Federal Government could well undertake studies of the economic consequences of disarmament in this context.

One of the contributions which the Office of the Special Assistant to the President for Disarmament can make is to organize an active unit within the executive branch to integrate thinking on this subject so that the challenges which disarmament may make on the domestic scene may be viewed without fear or alarm. Such effort is called for now, even in advance of specific disarmament plans, since progress in military technology constantly results in innovations which make possible, desirable, and necessary radical shifts in the type of manpower and material requirements of an adequate defense program. In recent days there has been growing talk in high places, both here and abroad, of significant reductions in military manpower requirements in light of the new weapons. Therefore, study of the implications for resource use of significant changes in the defense program is warranted, quite apart from questions of the practicability of overall defense reduction in the near future.

CONCLUSION

No one, I am afraid, is in a position today to tell us when disarmament may become a reality, nor even to characterize the process of reducing defense expenditures. Yet the appeal of attaining a peaceful world and the horror of failure is so compelling that we cannot overlook our responsibilities—as private citizens, members of the business community, public servants—in anticipating and preparing for the adjustments which will be required.

Our experience since World War II provides us assurance that as a nation we are capable of making these adjustments promptly. We are not complacent, but certainly we are not afraid to face a changing world. Rather we recognize that every step toward peaceful solutions of international problems offers us the challenges and opportunities upon which the Nation has thrived and which is the true source of our leadership.

From our brief survey, the following conclusions may be drawn:

First, high levels of defense spending, although essential in today's uneasy world, necessarily involve substantial sacrifices in the satisfaction of human wants.

Second, abundant opportunities for further improving our living standards exist whenever defense expenditures can safely be reduced. Although our citizens as a whole enjoy the world's highest standard of living, an international situation which permits curtailment of defense requirements would make it possible, and would promptly be taken advantage of, to advance that standard.

Third, under the Employment Act of 1946, the Nation has developed and will continue to develop effective skills, machinery and programs for dealing with adjustments and fluctuations in levels of economic activity. Substantial reductions in defense spending may significantly affect the complexion of the American economy and call for basic changes in public policies. Agriculture, labor, business, and consumers should have assurance that prompt Government actions will be taken.

Finally, the impact of disarmament may fall very unevenly upon particular industries, localities, and groups within the economy. We recognize that readjustments and shifts of all kinds go on constantly in a dynamic economy such as ours. We may anticipate that in many respects major reductions in defense spending will magnify significantly such readjustments. It is necessary, therefore, that serious and systematic thought be devoted to the character of the adjustments which would be called for and to the development of techniques, both in the private and public spheres, for assuring that these adjustments will be effectively made.

It may be concluded, therefore, that economic considerations support every feasible effort for disarmament. Certainly the problems and adjustments occasioned by cuts in defense spending do not represent—and must not be regarded as—economic barriers in the way of disarmament or peace.

TABLE 1.—*Gross national product in relation to Government expenditures—actual, 1939–55; estimated, 1956*

[Billions of dollars]

Year	Gross national product	Government expenditure for national product [1]					
		Federal, State, local		Federal			
				Total		Major national security	
		Amount	Percent gross national product	Amount	Percent gross national product	Amount	Percent gross national product
1939	$91.1	$13.3	14.6	$5.2	5.7	$1.3	1.4
1940	100.6	14.1	14.0	6.2	6.2	2.2	2.2
1941	125.8	24.8	19.7	16.9	13.4	13.8	11.0
1942	159.1	59.7	37.5	52.0	32.7	49.6	31.2
1943	192.5	88.6	46.0	81.2	42.2	80.4	41.8
1944	211.4	96.5	45.6	89.0	42.1	88.6	41.9
1945	213.6	82.9	38.8	74.8	35.0	75.9	35.5
1946	209.2	30.9	14.8	20.9	10.0	21.2	10.1
1947	232.2	28.6	12.3	15.8	6.8	13.3	5.7
1948	257.3	36.6	14.2	21.0	8.2	16.0	6.2
1949	257.3	43.6	16.9	25.4	9.9	19.3	7.5
1950	285.1	42.0	14.7	22.1	7.8	18.5	6.5
1951	328.2	62.8	19.1	41.0	12.5	37.3	11.4
1952	345.2	77.5	22.5	54.3	15.7	48.8	14.1
1953	363.2	84.4	23.2	59.5	16.4	51.5	14.2
1954	360.7	76.5	21.2	48.9	13.6	43.0	11.9
1955	390.9	76.8	19.6	46.7	11.9	41.2	10.5
1956 (estimated)	410.0	79.5	19.4	46.7	11.4	41.0	10.0

[1] For the purchase of goods and services.

Source: 1939–55, Department of Commerce 1956 estimates, Joint Economic Committee Staff.

TABLE 2.—*Estimated value of deliveries to the military departments and value of construction, 1953–55*

[Billions of dollars]

Year	Total	Hard goods	Soft goods	Construction
1953	$28.8	$23.3	$3.0	$2.5
1954	21.7	17.7	2.3	1.8
1955	20.1	16.3	1.8	1.9

NOTE.—Detail may not add to totals because of rounding.
Source: Department of Defense.

TABLE 3.—*Total and defense shipments of steel, copper, and aluminum mill products and castings, 1953–55*

Item and years	Total shipments	Shipments for defense production	Defense as percent of total
Steel (tons):			
1953	81,641,882	7,279,056	8.9
1954	64,143,371	1,815,470	2.8
1955	85,937,689	1,582,319	1.8
Copper (thousand pounds):			
1953	5,048,226	758,604	15.0
1954	4,225,499	277,204	6.6
1955	5,129,573	166,926	3.3
Aluminum (thousand pounds):			
1953	3,211,158	773,640	24.1
1954	3,009,676	363,087	12.1
1955	4,007,315	345,388	8.6

Source: Office of Defense Mobilizatio

Committee note: This is a copyright article for which the publishers have given permission to reprint in this volume of hearings.

[From Nation's Business, January 1957]

KREMLIN ECONOMISTS DISCLOSE RED PLANS

IN FIRST INTERVIEW WITH UNITED STATES ECONOMIST

(By Dr. Grover W. Ensley, Executive Director of the Joint Economic Committee of Congress)

A revolution now taking place in Soviet economic thought sheds new light on what to expect from the Communists in the period ahead.

Among the significant changes are these:

Leading Russian economists no longer expect Western economic collapse, as Marx predicted. They recognize and fear the strength of capitalism.

They look to the future as a long period of economic competitive struggle, although they expect eventually to win.

Younger, more flexible, Soviet economists are gaining stature and power in economic circles, as against the older Lenin-following economists.

These younger economists know a great deal about business trends in the United States. Their familiarity with economic documents, studies, and statistics produced here is noteworthy. They are eager to learn all they can about our business and industry and economic thinking.

The younger men understand that the American capitalist economy today is quite different from that of any period in the past, and that our economy never was like that of prerevolutionary Russia.

Russia's older economists, on the other hand, are unyielding in following the original concepts of communism. They continue to view capitalism through the eyes of Marx, Lenin, and Stalin. They scoff at our estimates of future growth because we "depend entirely upon decisions of millions of consumers, as well as hundreds of thousands of independent business men." They say that when they project economic goals they "are the law" and hence "must be achieved." They brand as "planned unemployment" the assumption in our Joint Economic

Committee's Potential Economic Growth of the United States During the Next Decade that in 1965 there will be a labor force of about 80 million, with about 3 million temporarily unemployed. They strongly maintain there is no unemployment in the Soviet Union—nor can there ever be. They neglect to add that many workers are assigned tasks of very low productivity, to say nothing of their slave-labor camps of the East.

The younger economists, however, seem more understanding of the meaning of temporary unemployment in the United States.

As the younger men gain prestige—which they are doing—and as their economic thought becomes better understood by Russia's political leaders, it seems inevitable that Communist policies will undergo some significant changes.

I learned of these developments recently during an unprecedented meeting in Moscow with seven top Russian economists at the Soviet Academy of Sciences.

My basic conclusion from this discussion is that the Communist economy, even with significant changes, can never outperform our own.

This doesn't mean that we need not fear communism. Quite the contrary. Economic competition will be fierce in the years ahead. But more important, Kremlin leaders are imperialistic by nature. Theirs is a ruthless dictatorship, and their philosophy is that the end justifies the means—whether in their own economic development or extending their authority abroad.

As these leaders—quarreling among themselves, watching upheaval in the satellite countries—come to understand this new concept that capitalism won't destroy itself, anything, in my judgment, can happen. Time, they have stated over and over again, is in their favor. Once they realize fully that time is not in their favor, they may panic.

We can never for a moment lower our guard against that possibility. This is a two-front struggle.

To meet the Communist threat, we must maintain military might and we must maintain economic might. To fail on either front could lead to the victory the Soviet bosses expect to achieve.

Although we need not fear the Communist economic struggle, we must meet it wisely because it is a well-calculated attack.

In the underdeveloped countries they are selling Soviet economic growth. I am convinced this growth is exaggerated. Nevertheless, it is great enough to win the respect of the underdeveloped countries, particularly in Asia.

After talking with the Russians and seeing a small part of their country, I am convinced more than ever that their method of allocating resources through central planning can never be as efficient as our private-enterprise system. What is essentially wrong with Socialist planning is that it fails to meet the market test, and the incentive offered to the individual can never bring forth the efficient effort that our free system provides.

But the people of underdeveloped nations don't understand this. They see a Russia that is expanding with terrific speed.

The Russians admit that they have made errors of economic judgment in the past. But they claim to the outside world that they now have perfected economic and social planning.

They urge the underdeveloped countries to profit from Russia's past mistakes.

In Moscow I saw many representatives from these countries. They are in Russia to learn Communist techniques.

Russian technicians likewise are numerous in the underdeveloped countries of Asia that I visited.

The Communists are showing off Red China with pride. Industrial growth in China, they claim, has been accomplished in less than a decade, and underdeveloped countries can do as much if they follow the same techniques.

That Red China's growth is being achieved at great human cost escapes many of the leaders of the underdeveloped countries or, I fear, is considered by them to be a justifiable cost of revolution. This is particularly true among Asians, where life is cheap and suffering is common. There, a philosophy that the end justifies the means is easier to accept. On this battleground the Communists expect to win their greatest victories in the years just ahead.

As for the future, it is clear that the Communists will pursue world trade on the basis of what is politically expedient for them.

The Kremlin leaders understand—as do the Soviet economists with whom I talked—that, if they are to hold the Communist countries together, they must be made economically, as well as politically, interdependent upon both Russia and one another.

To speed that goal, Russia is decentralizing production within the Communist bloc and seeking the advantage of division of labor. Each country, in future

years, will attempt to produce what she is thought to be best suited to produce. The plan, of course, is aimed at increasing dependence on Russia.

In the future, each country is to have more voice in determining its production. You can expect that Kremlin to yield more and more to growing pressures that control be vested in local hands.

It's difficult to know how much real and immediate influence the Russian economists have on Soviet political leaders. Recent Kremlin decisions obviously have been inspired mainly by political reasons and purposes.

But I think it is significant that the younger economists who talked with me are fully aware of the economic importance of the new decentralization of planning and control, as well as of production.

I went to Russia on my way to Bangkok. The State Department had invited me to be the chief United States delegate to the working party on economic development of the United Nations Economic Commission for Asia and the Far East.

Through the State Department I requested interviews in Moscow with economists at the Soviet Academy of Sciences. The request was granted by the Soviet Ministry of Foreign Affairs.

John Armitage, head of the economic section of our Embassy in Moscow, and I were met at the academy by the vice president, Academician K. V. Ostrovytyanov, and six of his colleagues. He apologized for the absence of Academicians E. S. Varga and S. Strumilin, who were indisposed that morning.

Besides Mr. Ostrovytyanov, there were Academician V. S. Nemchinov, Prof. A. A. Arzumanyan, Dr. Ya. A. Kronrod, and Dr. V. Ya. Aboltin, Mr. Perevertaylo, and Mr. Ostrovytyanov's assistant, V. A. Zaytsev. S. Shetinin, a young employee at the academy, served as interpreter. Also present was Natasha Burlova, interpreter-guide, who was assigned to me during my stay in Russia.

We were seated around a large conference table, the Russians according to rank. Tea was served with biscuits, candies, and other delicacies.

Two of the seven have titles of "academicians," the highest intellectual rank in the Soviet system. They are very highly paid.

Mr. Ostrovytyanov, the senior man present, made it clear early in the interview that because he had lived under both capitalism and socialism—he was obviously a contemporary of Lenin—he understood the two systems and dismissed any possibility that I might tell him anything virtuous about capitalism.

Throughout the talks it was clear that the two elder men scorned capitalism, whereas the younger economists were clearly impressed by capitalistic achievements. At points, the younger ones agreed with me that there have been significant changes in our economic system. They agreed that it is not inevitable that capitalism will go the way that Marx predicted and, in the same vein, that the United States will not necessarily have another 1929-type crash.

We know, of course, that Soviet Party Boss Khrushchev sharply criticized Russian economists last February, pointing out their repeated failures accurately to predict or forecast trends in the United States. This criticism apparently has had little effect on the older economists. But it surely has stimulated the younger men to study the economy of this country. They showed themselves to be familiar with recent professional economic publications, documents, and research reports from the United States.

My first questions concerned the methods Russia uses in allocating her resources. Under their system, the academy economists claimed, central planning permits the best possible allocation of resources between consumption and investment. The Soviet economists are spending a lot of time trying to improve their methods of planning. They admitted that they had made errors in the past—misjudgments, they called them—but they insist they are about at the point of perfection today. I was struck, for example, by the cocksure attitude of the Soviet delegates to the Bangkok meeting with respect to the present status of their planning methods.

The Academy economists agreed to the accuracy of western estimates that Russia is devoting about 25 percent of total production to investment (that compares with 18 or 19 percent in the United States, if we include government as well as private investment).

They admitted that devoting this large percentage to investment means that, in the short run, consumers will have less to eat and wear. But they insist that the long-run picture will make it possible to raise living standards more.

I asked whether this high rate of investment would taper off once Russia becomes more developed. This has been the case in the United States and other advanced countries.

Mr. Kronrod, perhaps the most widely quoted Russian authority on investment, stated emphatically that the high rate of investment will continue indefinitely. At that point he acknowledged familiarity with recent studies of the National Bureau of Economic Research in the United States which show that the productivity of capital actually increases as the economy becomes more developed.

Under the theory additions to capital stock result in greater increases in output than such increases would have produced at an earlier stage of development.

This is a significant finding which we have been discussing in the United States for 2 or 3 years. For example, at hearings of the Subcommittee on Tax Policy of the Joint Economic Committee a year ago, some of the academic and business witnesses used it as a basis for suggestions that tax policies should encourage increased investment.

Labor economists and other witnesses, however, felt that the implication of this research finding was that we should stimulate consumption, not only as the best way of stimulating continued economic growth but also in order to make the benefits of increased capital efficiency available to the consumers as soon as possible.

The Russian economists seemed aware of this debate in the United States. They found nothing unusual in the fact they were on the side of the "capitalists" in this discussion.

They indicated that their industrial production is increasing at a high rate. They used the figure of 10 to 12 percent a year. Western estimates, including those of our committee staff, are considerably under that. For example, we believe that during the 1948–55 period the annual rate of growth in Russia was about 7 percent, as compared with 4 percent in the United States. During the 1920's, when the United States experienced one its most rapid growth periods, our rate of growth exceeded 6 percent, not significantly different from the current Russian rate of growth.

I asked them if they expected this high rate of growth to continue indefinitely. They are confident it will.

When it was pointed out that the growth rate was in fact less in their current 5-year plan than in the preceding one, Mr. Kronrod emphasized that different 5-year plans concentrated on different major tasks. The growth rate, he insisted, varied from plan to plan, but the general growth rate would continue in the order of 10 to 12 percent annually. The current (sixth) 5-year plan, he stated, was concentrating on qualitative improvements in the economy, complex and improved mechanization, automation, specialization and improved technical training.

This point of view was seconded by Mr. Ostrovytyanov in another connection when he said that previous plans had been "administrative" and the current plan would be more "economic." By this he seemed to mean that previous plans had aimed at quantitative growth without much regard for cost factors and careful coordination within the plan for efficiency of production, whereas the current and future plans would pay greater attention to such factors. Western hopes and expectations are that as consumers in the Communist economies get their foot in the door and become educated to improved levels of living, they will, through one means or another, see to it that they get a larger share of the increased production. Thus the relative proportions going to investment and the rate of growth itself may tend to decline. The Russians are confident that they can improve living standards in a controlled way and still continue to emphasize investment at the expense of current consumption. Consumption is controlled but, unlike the United States, actually is discouraged by a variety of mechanisms. For example, consumer credit is viewed as a capitalistic trick to subjugate the workers. So it is not allowed, as it would be a stimulus to consumption which would interfere with investment goals.

According to our best estimate, Russia's gross national product last year was about 1,086 million rubles, a figure which cannot be compared exactly with our gross national product of $390 billion for the same period. But it is clear that their GNP in real terms is no more than a third of our GNP. I think this guess gives them the benefit of the doubt.

It is significant that while their rate of growth currently may be a little higher than ours, we are experiencing a greater growth in absolute terms than the Russians. Comparing very roughly, if you apply 7 percent to their figure you get an annual increment of approximately $10 billion, whereas if you apply 4 percent to our GNP of $400 billion you get an increment of $16 billion. We

can't be complacent in these figures, however, since the dictators in Moscow can do what they want with the increment, while in our country the individual at the marketplace and at the ballot box decides whether it should be devoted to civilian or military uses, foreign or domestic, consumption or investment.

I asked them how they resolved conflicts among themselves, in, for example, allocating goods and services. They were emphatic that there need be no differences of opinion among technicians when latest scientific methods are used.

I told them that I couldn't accept that and I didn't see how they, as intellectuals, could expect me to believe it. We know that conflict is the essence of scientific method and human relations. I told them, "Let's assume for a moment that you all agree as to how something should be done. How do you convince the people on the street that your formulas come out best for them? Don't they have a voice in the matter?

"Oh, they have a voice in the matter," they said emphatically. "But through years of experience the people have come to have complete confidence in our methods so that there is no public dissent."

If I were there now I would ask them if that was true in Hungary and Poland.

Later, at the Bangkok meeting, the Russian delegates continually emphasized the advanced development of their techniques, the multiple correlations, the most involved econometric models, but they would not go beyond that in spelling out exactly how they proceed. Questions designed to obtain more detailed information were ruled out of order by the bureau chairman.

At various points in our discussion in Moscow, the Communist economists tried to bait me with statements and questions that reflected the party line and which were obviously calculated to put me on the defensive. For example, I asked if defense expenditures account for a sizable portion of their industrial growth. They flared back at me with the charge that they have been disarming rapidly, dropping 800,000 men from their armed forces in the past year while the United States has remained what they call an "armed camp."

I took pains to point out that they were wrong, that they are demobilizing just 10 years after we had, and that we reviewed our demobilized status only after the aggression in Korea made clear the imperialistic threat of the Communist system. I said that today we have but 2.8 million men in our Armed Forces. When I asked them how many they have, they avoided answering the question.

Likewise they ducked questions as to what percentage of their total production is going into defense—this after I had told them that we are devoting not more than 10 percent of our production to defense.

They would not face up to these questions. But informed western estimates are that the Russians are devoting at least 15 percent of their production to defense. It also is estimated that they have nearly twice as many men in their armed forces as we have and that last year's demobilization was made necessary because of severe manpower shortages.

During our discussion, the academy economists went out of their way to tell about their recent discoveries of the economics of the division of labor. By that they meant, as they put it, that Poland would produce what she can most economically produce, with Czechoslovakia, Russian, China doing the same and then trading with one another.

This is a recent development. Under the old Lenin-Stalin program each unit tended to produce everything itself and exports were based on what was needed for imports. That was a kind of isolationism. Now they have apparenty discovered the laissez faire economies of the division of labor and comparative advantage.

Next the economists emphasized economies in decentralizing planning.

I think it is important to recognize those two trends in the system. Actually they are not discoveries. Both of these points, particularly the division of labor, were the keystone of Adam Smith's Wealth of Nations, published in 1776. Incidentally, this laid the groundwork for the overthrow of mercantilism with its detailed government controls and for the whole free-trade movement of the 19th century.

When I suggested this, Mr. Ostrovytyanov said, "Oh, no, Adam Smith talked about the division of labor only in terms of a given plant. He had no concept of the economics of trade between and among nations." I told them to reread Adam Smith.

I tried to find out how far they carried local initiative. In one sentence I used the words "private initiative." They kept agreeing with me. Finally my colleague from the Embassy said to them, "I think you have gotten the transla-

tion wrong. You are not willing to grant the advantages of private initiative, are you?"

"Oh, no," they said, "we didn't mean private initiative."

So they were quick to withdraw any appearance of agreeing that there was any merit of carrying decentralization to that point, but they clearly do see the need for greater flexibility in planning and executing programs.

They pointed out inducements they are giving for increases in productivity. In other words, it's almost a profit motive. Local managers are induced to produce more and to meet or exceed quotas—even to help determine what the quotas are in the first place. Much of labor is on a piece basis, again to stimulate production—a far cry from Marx's doctrine of "from each according to his ability, to each according to his need."

Mr. Nemchinov spoke of the youth who are migrating to the new industrial regions behind the Urals in response to "moral stimuli." Mr. Kronrod pointed out that there were significant differences of wages in various zones and that wages were higher in the east. They spoke repeatedly of inducements to achieve labor mobility "voluntarily." Their emphasis on this suggests a guilty conscience since we know that in the Soviet economy the stick is still as important as the carrot in providing labor mobility.

The emerging Russian economic system is certainly not capitalism. But it is quite different from making all the detailed plans in Moscow and then using a whip to make sure that in each area and in each industry those quotas are achieved.

Although the Russians boast to the outside world—particularly the underdeveloped countries—that they have perfected their methods of planning and controlling economic development, the academy economists were frank in admitting to me that, at the academy, they are currently pursuing research projects to find more scientific bases for planning operations.

The list of projects included ascertaining the prospects of economic growth in the next 10 to 15 years, measuring the effectiveness of capital investment, determining the productivity of labor, and establishing basic norms for construction. More research attention is being given to incentives, price policy, the wage system, and cost accounting.

In my visit to Russia I tried to evaluate the results of the Soviet allocation of resources to determine if they are getting as good results as we, using our free enterprise system. In other words, would the Communist allocation of resources match the standards set by the market in a free economy?

My impression is it would not.

This was evident in a number of ways but most noticeable in air transport. On the flight between Moscow and Tashkent—on the way to Kabul and New Delhi—we stopped at several airports with bumpy dirt runways. There were no seat belts on the Russian planes, no "no smoking" signs. It was an austere experience, to say the least. At one such airport in central Asia there was a terminal building surrounded by spacious grounds and all enclosed by a steel and stone fence.

This was not a security or protective type of fence which would keep people out of the grounds. It was purely ornamental.

When I thought of the manpower and materials that had gone into that fence I thought to myself, "Now if this were the United States, with the same amount of resources going into the terminal, we would have taken that brick and steel and mortar and made one good runway."

Apparently some architect or engineer back in Moscow has the notion that an airfield has to have some such ornamental fence around it. That is the way in which they allocate their resources in building an airfield. The physical layout and methods for processing passengers at the great and relatively new airport in Moscow are maddening from the standpoint of efficiency.

It's in the area of the allocation of resources, I think, that the free world can find its greatest hope. Sooner or later the Russian collectivist system will have to be put to the test. In the world's market place it will fail.

I conclude that the Communist threat is not so much economic as it is political and military. We must not relax our national policies calculated to counter Soviet imperialistic ambitions.

×