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THE ECONOMIC OUTLOOK: 1955-56

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FEW AREAS in the domestic social life of the nation are vested currently with greater public concern than the field of industrial relations. The development of better relationships between organized labor and organized employers, and the integration of these relationships with the interests of the individual citizens and the nation as a whole, constitute one of the most serious problems facing our economic and social system today.

The Legislature of the State of California expressed its desire to contribute to the solution of this problem when, in 1945, it established an Institute of Industrial Relations at the University of California. The general objective of the Institute is to facilitate a better understanding between labor and management throughout the state, and to equip persons desiring to enter the administrative field of industrial relations with the highest possible standard of qualifications.

The Institute has two headquarters, one located on the Los Angeles campus and the other located on the Berkeley campus. Each headquarters has its own director and its own program, but activities of the two sections are closely integrated through a Coordinating Committee. In addition, each section has a local Faculty Advisory Committee, to assist it in its relations to the University; and a Community Advisory Committee composed of representatives of labor, industry, and the general public, to advise the Institute on how it may best serve the community.

The program of the Institute is not directed toward the special interests of either labor or management, but rather toward the public interest. It is divided into two main activities: investigation of the facts and problems in the field of industrial relations, which includes an active research program and the collection of materials for a research and reference library; and general education on industrial relations, which includes regular University instruction for students and extension courses and conferences for the community.

The Economic Outlook: 1955-56

By **GEORGE H. HILDEBRAND** and **FRANK E. NORTON***
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Two West Coast economists analyze in considerable detail data on business and economic conditions in the current year and project the outlook into 1956. Furnish estimates of the demand for the national product and the probable volume of private domestic investment. Estimates are also made of personal consumption expenditures and of employment and unemployment. The conclusions are that 1955 will be a prosperous year, but there is some doubt regarding 1956, though an increase is expected in aggregate demand, and, "on the whole, the outlook for next two calendar years is good."

I. Introduction

Present indications rather strongly suggest that 1955 will be a good year for the American economy. Gross national product



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should increase by about \$9.5 billion, up 2.7% from \$357.1 billion in 1954, with no change in overall prices. If the physical productivity of labor rises by 2.5% and working hours average 40 per week, total civilian employment will run at about 61.6 million persons. Given an expected increase of 600,000 persons in the civilian labor force, average unemployment should not exceed 3.5 million. This would be about 5.4% of the enlarged labor force, which is just over the 3-5% range customarily

viewed as "full" employment.

Our estimate for 1955 is based upon rather conservative assumptions regarding the components of total demand for national output. Purchases of goods and services by all levels of government are expected to decrease by \$2.3 billion from 1954, mainly because Federal purchases were contracting all through the latter year. Federal purchases are assumed to remain at fourth quarter 1954 rates, primarily because the national security program has now officially touched bottom at \$40.5 billion per year. State and local government purchases ought to rise by \$2.0 billion.

Gross private investment was cautiously estimated at \$51.4 billion in 1955, up only \$5.3 billion from 1954, with the entire increase stemming from an expected expansion of 13% in nonfarm housing outlays and a small advance in business inventories. By contrast, nonfarm producers' plant and equipment outlays are expected to decrease by about 2% from 1954. Farm investment is expected to hold at 1954 levels, while net foreign investment is figured at zero.

The last component of total demand—personal consumption expenditures—is estimated to run at \$238.7 billion for 1955, up 2% from 1954. This figure assumes, first, that disposable personal in-

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come will maintain the same relationship to national product that it has in recent years, and particularly that there will be no marked changes in the government tax and transfer payment structure or in the dividend and depreciation policies of private business. Second, the consumption figure assumes that consumption will maintain the same relationship to disposable personal income that prevailed in past prosperous years. These assumptions mean that we expect no significant change in the gross corporate propensity to save, the personal propensity to save, or the government propensity to tax, hence that a determinant "multiplier" may be applied to anticipated increases in gross private investment and government purchases of goods and services.

For calendar 1956, the overall outlook is also quite bullish, although the underlying support for our forecast is considerably more conjectural. On our estimate, gross national product should rise \$11.3 billion over 1955, increasing by 3.1% to a level of \$377.9 billion. With the physical productivity of labor again rising by 2.5% and with a 40-hour week prevailing, employment in 1956 would average 61.9 million persons. Given the addition of another 600,000 persons to the civilian labor force, unemployment would rise to a 5.78% rate, averaging 3.8 million. This would indicate a moderate amount of slack in the economy, though 1956 would still be a very prosperous year, well in excess of the 1953 peak of \$364.9 billion.

Taking up the components of total demand for 1956, we assume that government purchases will rise by \$3.8 billion over 1955, with both the federal and the state and local sectors contributing to the increase. We are assuming here that federal outlays on national security will continue at \$40.5 billion, that other federal purchases will rise to \$7.3 billion (up \$1.6 billion), and that state and local government purchases will expand to \$31.7 billion (up \$2.2

billion). This makes total government purchases come to \$79.0 billion as compared to \$75.2 billion in 1955. We base the increases at all levels on the strong likelihood that Congress this year will enact substantial highway and school programs, whose costs will be jointly shared by the federal and state governments. If anything, our allowance for such proposed spending seems quite modest.

For gross private investment in 1956, we have assumed conservatively that outlays on nonfarm producers' plant and equipment will remain at expected 1955 levels, despite projected increases in national product for 1955 and 1956. Likewise, farm investment and net foreign investment were assumed to hold at 1955 levels. By contrast, we would expect an increase of at least \$1.0 billion in inventories, to bring total stocks more into line with the expected overall increase of over \$20.0 billion in total output between 1954 and 1956. We also assume that nonfarm housing outlays will continue at the 1955 rate corresponding to 1.4 million units. On these estimates, gross private investment would run at about \$51.9 billion in 1956, up about a half-billion over 1955.

Using the relationships among gross national product, disposable personal income, and personal consumption expenditures again for 1956 as in 1955, our forecasting equation indicates consumption in 1956 will run at \$245.7 billion, up \$7.0 billion (2.9%) from the estimate for 1955.

Regarding our estimates, certain reservations must be borne in mind, for the actual final magnitudes of the component variables cannot be perfectly foreseen in an uncertain world. On the one hand, it is quite possible that the highly volatile item of inventory investment may turn strongly upward under the impetus of expanding national product. Highways and other public construction programs are also capable of marked expansion beyond our cur-

rent expectations by 1956. Actual warfare, or even increased international tensions, would, of course, exert strong upward effects. On a less dramatic level, it is quite possible that net foreign investment may turn positive if the economic recovery of western Europe proceeds far enough to raise imports from the United States significantly. Finally, there is a good prospect that personal income tax rates will be cut in the lower brackets in 1956—an election year—which would further stimulate consumption.

On the other hand, spending on nonfarm housing may now be running at too high a rate to be sustainable for two more years, particularly if mortgage money should become tighter. A further drop in investment for producers' plant and equipment in 1956 is also at least a possibility, for such capital facilities have been rising faster than output during the post-war years. Moreover, current output of automobiles has been running at unprecedentedly high rates. Any marked downturn, by reason of market saturation or strikes, would also depress the steel and transportation industries, with negative derivative impacts on the rest of the economy. Also, our overall forecast for consumer spending, while based on a well fitting regression equation, may be somewhat too large for these particular years. Finally, if peace were really to "break out" at some point in these two years, defense expenditures would fall sharply, with marked deflationary effects on the economy in the short run.

Some readers will also note that our estimates suggest that total employment in 1955-1956 will lag behind the expected growth in the civilian labor force. While the indications certainly do not suggest a serious unemployment problem, they do indicate a slow edging upward in unemployment. If physical productivity were to advance more rapidly than 2.5% and weekly hours were to move above 40, the immediate effect would be more unemployment in these two

years than we have predicted. Thus, if the rate of unemployment were significantly to exceed 5% of the civilian labor force, we would move into the zone of an under-employment economy, and the implementation of counter-cyclical policies would be in order.

The accompanying table presents the predicted value of various economic variables of the economy for calendar 1955 and 1956, as well as the actual values for 1954. A detailed analysis of the bases for these conclusions is undertaken in subsequent sections.

II. The Demand for National Product

Analysis of the aggregate demand for national product requires estimates of the amounts of product that will be absorbed through (1) federal, state, and local government purchases of goods and services; (2) gross private domestic investment; (3) net foreign investment; and (4) personal consumption expenditures.

For purposes of short run forecasting, it is convenient to use a simplified economic model that considers consumer demand to be the only endogenous demand variable, with the remaining demand components considered as exogenous. This implies that consumer demand is dependent upon income and thus upon general business conditions, while the other components of demand are not. However, we have made additional checks on the values assigned to some of the elements of gross private domestic investment, to see whether they are mutually consistent with the solution values of other endogenous variables. This implies that these elements themselves are really endogenous. Further, we have used "intentions" survey information for estimating certain types of investment. In this respect one may consider such investment endogenous to the degree that it rests upon an expected

change in national product which roughly compares with that predicted by the model itself.

In what follows we shall discuss our estimates for the exogenous demand variables, after which we shall show how our estimates for the endogenous variables were derived from the equations of our gross national product model.

Government Purchases of Goods and Services

About 20% of total demand for national output in the American economy consists of purchases of goods and services by federal, state, and local governments. Among the principal items of government demand are supplies and equipment, construction projects of various types, and employee services. At the federal level, the dominant part of government purchases is for purposes of national security (equipment and maintenance of the armed services, atomic energy production). At the state and local level, construction

projects dominate (highways, schools, public buildings).

For purposes of forecasting, government purchases are considered exogenous. They are determined by political and sociological processes and only in a limited way are they influenced by the level of or changes in the total volume of economic activity. Accordingly, we have considered them as an independent component of total demand rather than as a variable determined by the level of economic activity.

Unfortunately, it is very difficult to estimate government demand for a future period. Most projected expenditures of governments are prepared on a fiscal rather than on a calendar year basis, requiring arbitrary redistribution for purposes of calendar year estimates. In addition, the administrative budgets through which expenditures are planned are not set up on a basis that permits easy determination of actual purchases of goods and services,

TABLE I

National Product and Employment, 1954-1956

I. Demand for national product (in billions of 1954 dollars):	1954	1955	1956
1. Govt. purchases of goods and services...	\$77.5	\$75.2	\$79.0
Federal	50.1	45.7	47.3
National security	43.6	40.0	40.0
Other	6.8	5.7	7.3
State and local	27.5	29.5	31.7
2. Gross private domestic investment.....	46.1	51.4	51.9
Producers' plant and equip. (nonfarm)	30.6	30.0	30.0
Farm equipment and construction....	3.6	3.6	3.6
Residential construction (nonfarm)...	13.4	15.1	15.1
Other private construction.....	2.1	2.2	2.2
Net change in business inventories...	-3.6	0.5	1.0
3. Net foreign investment.....	-0.6	0.0	0.0
4. Personal consumption expenditures....	234.0	238.7	245.7
Personal saving	19.6	17.2	17.8
Disposable personal income.....	253.6	255.9	263.5
5. Gross national product (1+2+3+4).....	\$357.1	\$366.6	\$377.9
II. Employment and unemployment (million persons):			
1. Total civilian labor force (annual avge.)	64.5	65.1	65.7
2. Total employment (annual average)....	61.2	61.6	61.9
3. Total unemploy't (1-2) (annual avge.)	3.3	3.5	3.8
4. Percentage of civilian labor force unemployed	4.9	5.4	5.8

as distinguished from receipts and outlays involving taxes and transfer payments. Finally, the forecaster must confront special hazards of uncertainty. Congress and the legislatures do not usually enact proposals for expenditure in the form in which executive bodies submit them. Often, too, the legislative bodies enact proposals of their own. Thus projections in the government category are inherently difficult to make and necessarily somewhat arbitrary in their magnitudes.

Federal purchases consist of two main categories: national security and "other." For calendar 1955 and 1956, we have entered national security at \$40.0 billion. This figure was recently suggested by Defense Secretary Wilson as "rock bottom" so long as the cold war lasts. It compares with a seasonally adjusted annual rate of \$40.6 billion in the final quarter of 1954, and assumes that the lengthy contraction in security outlays is now over.

"Other" federal purchases were down to a \$5.7 billion annual rate in the fourth quarter of last year, as compared with \$6.8 billion for 1954 as a whole, and \$8.5 billion for 1953. For calendar 1955, we have assumed, first, that there will be no further contraction from the fourth quarter 1954 rate, and second, that pending proposals for increased collateral federal outlays for highways and schools, will not be translated into actual purchases during 1955 by reason of legislative delays and required lead time for planning. For calendar 1956 we estimate "other" federal purchases at \$7.3 billion. We believe the projected increase of \$1.6 billion over 1955 is conservative, given that the federal share of the proposed highway program alone would be \$3 billion annually for a full decade, which is well above the current rate for federal highway grants.

We have projected state and local purchases at \$29.5 billion in calendar 1955, up \$2.0 billion over 1954. This was the rate of increase (annual equivalent) in the fourth quarter of 1954 relative to the

same quarter of 1953. It slightly exceeds the sustained rate of increase throughout the postwar years. For calendar 1956, we estimate the total at \$31.7 billion, up \$2.2 billion from 1955. This makes small additional allowance for the eventual impacts of the proposed programs for highways and schools. It appears conservative, for the state and local share of the highway program alone would run at \$7 billion annually for a decade, making a sizable net increase in current highway construction outlays.

When all these estimates are summated, we have a total of \$75.2 billion and \$79.0 billion for calendar 1955 and 1956, respectively. These figures may be compared to the figure of \$77.5 billion for total government purchases of goods and services for calendar 1954.

Gross Private Domestic Investment and Net Foreign Investment

This component of total demand has absorbed about 14% of national output in recent years. It consists of investment in housing, plant and equipment and other private construction, and in inventories.

In a strict sense, the principal constituents of gross private domestic investment should not be considered exogenous. Unfortunately, the determinants of the inducement to invest are difficult to evaluate for purposes of short run forecasting. Consequently, it seems advisable to treat them as exogenous initially and then to test their assigned values relative to the predicted values of endogenous variables, for mutual consistency. This, of course, can only be accomplished in a general way, but we feel that this methodology will lead to the probable rejection of implausible values for these economic variables.

The largest component of this category of total demand, namely, nonfarm producers' plant and equipment, amounted to \$29.6 billion in 1954. About two-thirds of these outlays were for equipment, and the remainder

for construction. The recent McGraw-Hill Survey of business firms as to their investment programs for the future, indicates that they expect to spend approximately 5% less on plant and equipment in 1955 than they did in 1954. Expenditures in 1956 were expected to be at least as high as those for 1955. However, in the last quarter of 1954, such expenditures were running at an annual rate of \$30.1 billion. Moreover, planned outlays for the first quarter of 1955 are only about 2% below the last quarter of 1954. In view of the fairly strong rise in economic activity during the first two months of 1955, we believe these expenditures are apt to be well maintained. Accordingly, nonfarm producers' plant and equipment expenditures are estimated to amount to about \$30.0 billion in 1955 and approximately the same sum for 1956. This would appear to be a conservative figure. For if national product rises in the two years according to our forecast, there may well be a further strengthening of the inducement to invest. We make no allowance for such additional induced investment except insofar as the planned outlays of business firms are premised on a rise in national product, since these expenditures are formally treated as an exogenous variable.

Farm equipment and construction expenditures amounted to \$3.6 billion in 1954 and were running at a corresponding annual rate as of the last quarter of the year. This last quarter figure showed some improvement over the third quarter. Although farm income will probably be somewhat lower in 1955 than in 1954, long run technical progress is apt to call for cost saving innovations, and these may even be speeded up by the downward pressure on farm net income. On this basis we expect farm equipment and construction to hold at a level of \$3.6 billion for both 1955 and 1956.

The next type of private investment is that for residential non-

farm construction. Surveys of the U. S. Bureau of Labor Statistics and the U. S. Department of Commerce indicate that expenditure of this type should run about 13% higher in 1955 than in 1954. Using the \$13.4 billion result for 1954, this yields \$15.1 billion for 1955 and 1956. At the present rate of housing starts, if continued through the remainder of the year, our estimate is low for 1955. However, it is probably on the conservative side. For 1956 the matter is not quite so clear. No one knows whether the present housing boom will continue or not. We are assuming that it will.

The remaining construction category is Other Private Construction, which relates to private non-profit organizations such as hospitals and charitable bodies. Investment in this category is small, running at \$2.1 billion in 1954, and at an annual rate of \$2.2 billion in the fourth quarter. We have assigned values of \$2.2 billion for 1955 and 1956 in our total estimates.

In some ways the last item of gross private domestic investment is the most difficult of all to predict. This is the net change in business inventories. The volatility of the inventory item is, of course, notorious. As is well known, this variable turned negative after the September peak in 1953, when total inventories in manufacturing and in retail and wholesale trade aggregated \$82 billion. Since that date disinvestment of private inventories has been marked and continuous. For calendar 1954, net disinvestment was -\$3.6 billion. However, in the final quarter of 1954 the seasonally adjusted annual rate for inventory change fell to -\$1.5 billion, which indicates that inventory liquidation is approaching an end.

With the relatively recent revision of inventory statistical series, observations over time are insufficient to determine possible relationships between inventories and sales at various stages of the production and distribution process. Thus it is difficult to develop a

norm by which the current inventory situation could be evaluated. The available evidence suggests that substantial inventory disinvestment is now past. If, as we expect, gross national product will increase in 1955 and 1956, it is likely that some positive net investment in inventories will be called for. We believe an estimate of \$0.5 billion to be conservative for 1955; our estimate for 1956 is \$1.0 billion. However, we wish to emphasize that the timing of inventory changes is dependent on a number of circumstances that are extremely difficult to evaluate currently.

Taking all these components of gross private domestic investment together, we estimate investment will be \$51.4 billion and \$51.9 billion in 1955 and 1956, respectively, which compares with \$46.1 for 1954. Thus it would seem that despite a slight expected decrease in investment for producers' plant and equipment, gross domestic investment will nonetheless rise. This increase will be due to the predicted increase in outlays for residential, construction and the expected positive inventory investment.

Any attempt to estimate gross private investment for 1955 and 1956 raises the question of the sustainability of the pattern we have laid out for those two years. This is especially true for 1956. There are two ways in which estimates of this type might be checked. One would be to consider the relation of the components of gross private domestic investment, especially private plant and equipment expenditures, to corporate profits after taxes or to gross business product. An alternative would be to consider the relation between the gross capital stock and national output. Rather superficial consideration of the former suggests that the figures for 1955 are not out of the range of likely possibilities. Unfortunately, lack of time and of adequate data precluded an exhaustive analysis.

There remains the item of net foreign investment. For recent years values in this category have

been relatively small and have been running consistently negative. The current European recovery may well indicate increased exports from the United States to these countries. There is thus the possibility that the figure might become positive. We have assigned a value of 0.0 for each of the two years under consideration, more or less arbitrarily.

Personal Consumption Expenditures

Consumer demand is considered an explicitly endogenous demand variable in our forecasting model. To estimate personal consumption expenditures, we employed two structural relations: First, a disposable personal income function fitted by the method of least squares to data on disposable personal income, on the one hand, and gross national product on the other, for the period 1929-1954 in current prices. Second, we employed a consumption function prepared by the U. S. Department of Commerce. This function was also fitted by the least squares method and links personal consumption expenditures, on the one hand, and disposable personal income on the other, for selected prosperous years of the 1920's, 1930's, and 1940, in current prices.¹ A relatively superficial study of information pertaining to liquid assets, outstanding debt and changes therein, in relation to the consumption - disposable income scatter, did not reveal predictable relations between consumption and one or more of these economic variables.

Our use of a stable function relating disposable personal income

¹ The U. S. Department of Commerce regression equation fitted by the method of least squares is $C = 3.3 + 0.92 Y(D)$, where C = personal consumption expenditures and $Y(D)$ = disposable personal income, both in billions of current dollars. The equation is fitted to the data for the selected years 1922-30, 1937, 1939, and 1940. See Louis J. Paradiso, "The Recent Pattern of Consumption," *Survey of Current Business*, XXXIV (April, 1954), 5-12. Our own regression equation, also fitted by the method of least squares, is $Y(D) = 10.3 + 0.67 GNP$ where GNP = gross national product in billions of current dollars. It was fitted to data for the period 1929-1954.

and gross national product implies certain *caeteris paribus* assumptions, namely, that business depreciation and dividend policies remain invariant; that the tax structure, including excise, personal, and corporate tax rates and exemptions, and the transfer payment structure, remain relatively unchanged. Alternatively, we may say that it presupposes that the gross propensity to save of corporations, the personal propensity to save, the propensity to tax, and the propensity to pay transfer payments, all remain unchanged. A change in any one of these relations would affect our forecasts somewhat. Time and resources precluded a more detailed analysis of them. Suffice it to say that the empirical relations estimated provided a good fit to the data.

We believe that the consumption function used is likely to give plausible forecasts providing significant unemployment, for example, 10% or more of the civilian labor force, does not occur. This seems a reasonable assumption for both 1955 and 1956, although the case is, of course, less secure for 1956. Using the predicted values of disposable income for 1955 and 1956, the consumption function employed gives an average personal propensity to save of 5.71% and 6.75% respectively. This may be compared to a value of 7.7% for 1954 and 7.2% for the last quarter of 1954. Thus it should be recognized that the equation gives an average personal propensity to save somewhat below that recently prevailing. Consequently, we may be tending to overestimate the consumer demand forthcoming in these two years.

Our estimate of personal consumption is obtained by linking the consumption and disposable income functions together and thus expressing consumption as a function of gross national product.² Using our solution values for gross national product in this latter equation, we obtain an estimated value of consumption of \$238.7 and \$245.7 billion for 1955 and 1956, respectively. These fig-

ures compare with a figure of \$234.0 billion for calendar 1954. The corresponding values for personal saving in the two years are \$17.2 and \$17.8 billion. Finally, the value of disposable personal income is predicted at \$255.9 billion for 1955 and \$263.5 billion for 1956. Disposable personal income was \$253.6 billion in 1954.

Gross National Product in 1955 and 1956

The economic model system we have used consists ultimately of the linear consumption-gross national product relation and the exogenous government, investment and foreign demand variables. A reduced form equation derived therefrom may be used to express gross national product as a linear function of the exogenous demand variables.³ Inserting the estimates for these exogenous quantities which we have given above in this gross national product forecasting equation, we obtain the following results: 1955 gross national product will run at an average annual rate of \$366.6 billion, up 2.7% over that for 1954. That for 1956 we estimate to be \$377.9 billion, an increase of 3.1% over that predicted for 1955. These values may be compared to the figure of \$357.1 billion for gross national product in 1954.

III. Employment and Unemployment

Although gross national product in 1955 ought to come very close to its all-time high in 1953 and to exceed 1954 by \$11 billion, the prospects for employment and unemployment are not quite so favorable. We estimate that average employment in 1955 will be about

² The derived linear equation is $C = 12.78 + 0.62 \text{ GNP}$, where the variables are defined as given in footnote 1, above.

³ The gross national product forecasting equation is $\text{GNP} = 2.63(12.78 + B + G + F)$, where B = gross private domestic investment, G = government purchases of goods and services, and F = net foreign investment, all in billions of current dollars. See the preceding footnotes for the underlying structural equations. The multiplier coefficient is 2.63, which means that a one billion change in one or more of the exogenous demand variables will lead to a 2.63 billion change in gross national product.

61.6 million persons, and unemployment about 3.5 million (5.4% of the civilian labor force). For 1956, we expect employment will average about 61.9 million persons, and unemployment about 3.8 million (5.7% of the labor force). Thus expected unemployment would slightly exceed the conventional full employment range of 3-5% of the civilian labor force.

These projected rates of unemployment are not at all serious from a short run point of view. Yet they do not warrant complacency. They are not serious for they reflect the substantial adjustment of the economy to a rapid cutback in defense spending, which began in mid-1953, following three years of very rapid build-up. They also reflect a strong collateral reduction in inventories following their September, 1953, peak. The fiscal and monetary aspects of this transition have been managed remarkably well on the whole and the performance of the economy has been very favorable. By any reasonable standard the recession of 1954 was extremely mild, and recovery now seems well under way.

However, the crucial question is whether overall growth of demand will be adequate to absorb a labor force that is expanding by perhaps 600,000 persons a year and whose physical productivity rises by at least 2.5% a year. It is equally essential that this rate of growth be reasonably well sustained on a long period basis. Our estimates suggest that for 1955-1956 a moderate amount of slack will be developing in the labor force, continuing a process emerging in 1954 and exceeding the slack required to assure stable prices with full employment. For a limited period, an unemployment rate of 5-6% is no catastrophe. But if this rate were to persist or to creep up further, we would eventually find ourselves once more in a vacuum economy with insufficient total demand, requiring stronger counter-deflationary measures.

To estimate employment and

unemployment in 1955 and 1956, we assumed, first, an increase of 600,000 persons annually for the civilian labor force. This corresponds closely with behavior in 1953 and 1954 as estimated under the new 230-area sample. This would take the total from an average of 64.5 million persons in 1954 to 65.1 million in 1955 and 65.7 million in 1956.

Second, we assumed that average physical output per employed person would rise by 2.5% in each year. Third, we assumed that average weekly hours would hold at their present level of about 39.5 hours. Dividing projected gross product by imputed value product per man (at constant prices) for 1955 and 1956 yields figures for average total employment of 61.6 million persons in 1955 and 61.9 million for 1956. Subtracting these magnitudes from the projected totals for the civilian labor force yields unemployment of 3.5 million persons in 1955 and 3.8 million in 1956. In 1954 employment averaged 61.2 million and unemployment 3.2 million. Thus, while employment will be rising relative to 1954, it will not be advancing quite fast enough to match an increasing and more productive labor force.

Put a little differently, the problem is to maintain a rate of growth in gross national product sufficient to hold the percentage rate of unemployment at a stable level within the 3-5% full employment range. To do so with an annual increase of 600,000 in the labor force and with productivity advancing at 2.5% per year, national product should advance by between \$12 and \$13 billion each year for a labor force of 65 million. On our estimates we shall fall short of this target increase by about \$3 billion in 1955 and \$2 billion in 1956.

Although the procedure used here is conventional and well grounded, it does require a word of caution. Any estimate of the prospective civilian labor force must confront the limitation that only two annual observations,

1953 (as revised) and 1954, are available—hardly enough for a reliable trend. Moreover, the assumed 2.5% compounded annual increase in imputed value product per man may be too low, especially for 1955, since we have based it on 1954 results, when productivity actually fell. For the most part, the decline was due to a reduction of weekly hours. If hours were to increase significantly in 1955, employment would rise less relative to projected total demand. Apart from changes in weekly hours, productivity might still jump by more than 2.5%, which also would depress our estimate for employment and at the same time increase the figure for unemployment. However, it must also be borne in mind that an increase in physical productivity over trend (with weekly hours given) would lead to lower product prices, perhaps exerting some positive leverage upon consumption and private investment and so compensating in some degree for the adverse effects upon employment and unemployment.

Furthermore, we believe our underlying estimates of demand for gross national product may be on the low side, for reasons indicated in Section I. In this respect this is a way of saying that we would be less surprised if gross national product exceeds estimate than if it fell short. On this basis, our estimates for employment are more likely to be on the low side, and conversely, those for unemployment on the high. Thus, while we would not be operating in 1955 and 1956 at 3% unemployment, we ought to attain a 5% rate.

IV. Conclusions

The postwar performance of our economy has clearly demonstrated its tremendous growth potential. Our national product in real terms has risen about one-third over its immediate postwar level. Except for 1949 and 1954, unemployment has been held at a level that is generally considered acceptable. It is true that this economic expansion in real terms has been accompanied by a very substan-

tial price inflation. But in the last three years, prices have shown a remarkable stability. But what of the future? Will the years to come be recorded in history as equally satisfactory?

Our economic analysis suggests that 1955 will be a year of prosperity. The situation for 1956 is less clear. The current prospects are that 1956 will be a good year but it may not come close enough to meeting the test of five or less per cent unemployment of the labor force. It must be fully recognized that our potential real national product is growing year by year and that aggregate demand for such national product must grow correspondingly if we are to realize our full potential. Once the economy generates a product less than that corresponding to full employment, we ought to examine the economic situation to determine whether this circumstance is apt to be temporary or not. These are the crossroads at which we find ourselves at present.

One must face the fact that the postwar prosperity was based upon a certain constellation of circumstances that cannot be depended upon to operate in the future. The tremendous backlog of demand for durable products is largely dissipated, except perhaps in the field of housing. The excessive liquidity in relation to the price level and income has been partially eliminated via price and income changes. Defense-induced investment is no longer the powerful stimulant that it was during 1950-1953.

Now we must face the problem of whether the economy is likely to have sufficient aggregate demand forthcoming under more "normal" conditions to generate full employment national product. More precisely, can we sustain sufficient investment in order to fill the gap between full employment gross national product and consumption after allowing for a substantially reduced government demand relative to national product? No completely satisfactory answer can be given to this ques-

tion at present. It is well, however to point out certain circumstances from which the reader may form his own conclusions. First, we have had a tremendous housing boom in the postwar period, maintained in part by increasingly liberal financing. Many experts doubt that this very high rate of residential construction can be long sustained. We believe, however, that this housing activity will continue through 1956. Second, there is some evidence that the ratio of private producers' durable equipment stock to gross private product has returned to a value about equal to that of 1929.⁴ This suggests that past deficiencies of capital in relation to output, at least so far as equipment is concerned, have been made up. From here on it will only be necessary to increase capital in proportion to output as the latter grows. If output were to rise at a rapid rate, it is possible that sufficient investment would be "called forth." However, enough has been said to suggest the increasing difficulty of maintaining investment of this type in the future. The postwar experience to date gives us little basis for optimism in this regard. To be optimistic here requires that one count heavily upon a spontaneous burst of innovational investment, something which obviously cannot be foreseen.

Inventory disinvestment during 1954 was essentially an aftermath of the defense build-up following the Korean episode. When the multiplier effects of such changes are considered, it can be seen that they can have a substantial influence on national product. However, if the inducement to invest is weak in other major investment sectors, a general decline in economic activity may be initiated. In 1949, and it appears also to be true in 1954, the inducement to invest was fairly strong so that we merely had an "inventory adjust-

ment." No general deflationary processes were engendered. We feel that the economy will move forward to higher levels of economic activity in 1955 and 1956, but there may be some waning so far as its buoyancy is concerned. And this would probably manifest itself in our not quite reaching our standard of 5% or less unemployment. Thus it appears that it will take more than a favorable inventory adjustment to give the economy a dynamic push to full employment.

We expect personal consumption expenditures to make a positive contribution to increased aggregate demand in 1955 and 1956. In fact, consumption actually increased during the recession years of 1949 and 1954. On the whole, the outlook for the next two calendar years is good, judged from present evidence. Yet there is some ground for concern over a possibly developing "underinvestment gap," and this concern is not allayed by our gross national product projections. For what these estimates indicate is that we may be failing to hold the rate of unemployment within full employment limits. In other words, the estimated increases in demand for gross national product are not quite large enough to hold the line on the rate of unemployment. The cause may only be transitory, centering in the shock effects from the reversal of the Korean defense build-up. However, it may reflect deeper structural changes, culminating in more persistent investment deficiency. Clearly, we ought not to conclude from such limited evidence that we are confronting secular stagnation. But we should maintain a flexible view, and be prepared to undertake more vigorous fiscal and monetary action if developments indicate that it is necessary.

⁴ See Raymond Nassimbone and Donald G. Wooden, "Growth of Business Capital Equipment 1929-53," *Survey of Current Business*, XXXIV (December, 1954), 18-28.

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