THE NATION'S ECONOMIC BUDGET
A TOOL OF FULL EMPLOYMENT POLICY

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1 STATISTICAL DATA UNDERLYING A FULL EMPLOYMENT POLICY

DISCUSSION OF A POSTWAR POLICY of full employment, or for that matter of any coherent postwar economic policy, has centered recently around the Murray-Patman full employment bill.[1] If enacted, this bill would express the determination of the United States Government to pursue a policy designed to assure full employment, and would provide for an executive and legislative procedure for the formulation of fiscal and economic policies to that end. The bill itself does not outline a program. Great emphasis is placed upon statistical information the President would place at least annually before Congress as background for his own recommendations of policies and for Congressional deliberation.

Critics have insisted that the statistical information required by the bill cannot be had. I believe that in professional discussion of this problem it is well not to stick too closely to the wording of the bill. The main question is whether it is possible to make an appraisal of economic prospects that can serve as a basis for full employment policies.

Before we can say whether the statistical data needed for the formulation of a full employment policy can be provided we must understand the role a statistical analysis of the national product and national income plays in a policy designed to assure full employment, review the statistical sources and data and the deficiencies for this task, and adopt suitable statistical

[1] S. 380, passed by the Senate on October 1, 1945.

methods and procedures for estimating national income and product for the immediate future.

In this introductory essay I shall submit only some thoughts concerning the first question. Copies of a report dealing with some important aspects of the second question have been distributed. The third is dealt with in subsequent papers.

Obviously data useful for purposes of policy formulation must be such as to admit of conclusions concerning *future* economic conditions. Past and current events are of interest only so far as they are means for deriving conclusions with respect to the future. Obviously also the data must be hypothetical, i.e., we must ask two 'if' questions: How will economic conditions develop if present policies are continued and if certain policies now under consideration are adopted?

Thus the problem boils down to the time-honored question whether we can make statements about prospective developments with reasonable confidence, and whether we can appraise the probable effect of policies now under consideration. The answer is unequivocal: "We must." To deny in principle the possibility of making reasonable statements concerning the probability of future business conditions, and the probable effects of contemplated policies, is tantamount to denying the possibility of any rational action. A prerequisite to the consideration of any policy measure is an appraisal of the probable course of events if it is or is not adopted. All the full employment bill provides in this respect is a specific form and a systematic procedure for such appraisals. The approach contemplated by the full employment bill entails the use of the national production and employment budget, in short, the Nation's Budget.[2]

[2] The bill does not prescribe a specific form for statistical estimates to be included in the national budget. I shall refer for discussion's sake to the form used in the *Budget for the United States Government* for the fiscal year 1946, summarized in the Budget Message, p. xxv, and given in detail in Appendix Table 10, p. 830.

The bill stipulates an estimate of the national income and national production required under conditions of full employment. Estimating the labor force and average output per man — the elements that determine national product under full employment — involves less basic problems than a forecast of business conditions, as long as the projection covers only a short period and aims at an estimate of the approximate order of magnitude. Problems arise, of course, when an attempt is made to divide the total national income and product into components; that is, to present a Nation's Economic Budget as an objective of policy. I shall not deal with this aspect of the Murray bill in this paper.

The skeptics are arguing, first of all, that economists in the past have failed to predict imminent changes in business conditions; especially at the end of the 'twenties to predict the depression of the 'thirties. It cannot be denied that economists and statisticians, with some outstanding exceptions, have fallen down in critical situations despite the effort and money spent on business forecasts. I believe it can be shown that the failures were due to the methods, and that we can learn from the mistakes.

2 Past Bases of Forecasts

General economic forecasts have been based mainly on two methods: (1) extrapolations of past trends; (2) use of economic 'barometers'. Both methods made use of 'symptoms', i.e., economic series that represent, rather than directly measure, economic transactions statisticians attempt to portray. Symptoms were used perforce, because only a few over-all statistical data were currently available. Estimates of aggregates of economic transactions, such as national income, investments, consumers' expenditures, used to become available only years after the end of the period.

Extrapolations of Past Trends. The compilation of single-line economic indices over a period temptingly suggests that the 'trend' will continue into the future. The 'New Era' of the 'twenties was dominated by an optimistic belief in continuing 'natural' progress, although it was recognized that actual development proceeded in the form of fluctuations around the trend line. It was believed that these fluctuations followed regular patterns, so that forecasts could be made by extrapolating the trend as well as the cycle. This interpretation was based on the belief that, within certain margins, balanced economic expansion would naturally continue — without the aid of any specific policies. Discussion of a popularly supported full employment bill is in itself evidence that continuing and balanced economic expansion is no longer taken for granted, and that public policy can either hinder or promote economic expansion and can aggravate or iron out economic fluctuations.

Use of Economic 'Barometers'. Prediction on the basis of economic barometers was a much more sophisticated approach than the extrapolation of trends. Many of the economic barometers, particularly the 'Harvard Barometer', used three indices designed to reflect speculation, business transactions, and interest rates. These barometers were devised on the basis of experience during a certain period of observation. It was found that speculation, as reflected in the stock market, often preceded an upturn or downturn in business conditions; that an increase in interest rates often indicated the end of prosperity while a reduction in interest rates during a depression presaged recovery. A change in speculation may precede a change in business conditions either because speculators are accurate in their predictions or because they reflect optimism and pessimism, which are causal factors affecting business conditions. There is evidence that speculation has actually sometimes foretold business conditions to some extent, but the ups and downs of speculation are much too erratic to indicate the intensity and duration of the business fluctuations to follow.

Furthermore, speculators have recently become accustomed to anticipate government policies that may be adopted more than to study the business outlook. So far as speculation anticipates the adoption of new government policies, it is obviously impossible to use barometers based upon speculation for predicting what the course of business conditions will be if the government policies under consideration are not adopted. When speculators look to Washington for guidance, it does not make much sense for Washington to be guided by the behavior of speculators. As a matter of fact, several investment services are now using methods for analyzing and predicting business conditions similar to those implied in the approach of the Murray bill.

The use of an index of money rates is predicated on a theory that overrated the causal force of changes in interest rates on business conditions in general. A low interest rate may stimulate business conditions if other conditions are favorable; it may fail if other conditions are unfavorable.

Business forecasts on the basis of economic barometers can be valid for limited periods at best, and one is seldom aware in time of basic changes that invalidate the use of a specific barometer. The study of symptoms is valuable, but their significance in relation to the basic economic structure must continuously be checked.

3 The Nation's Economic Budget as a Basis for Forecasts

An analysis of economic conditions based on the Nation's Economic Budget uses a much broader theoretical approach than trend extrapolations and barometer analyses. Based upon an analysis of economic flows it is focused on the dynamic elements, particularly the factors determining investment and saving. The emphasis on economic flows by no means precludes attention to profit expectations and the relation of prices to wage rates, interest rates, and other cost factors. These relations are especially important in examining the investment outlook.

The Nation's Economic Budget simply presents gross national income and gross national expenditures in the two columns of a national ledger. The totals of both sides must, of course, be equal. National income and national expenditures are allocated to consumers, business, international transactions, and government. For each category, income and expenditures are not equal, the difference being net savings or the absorption of savings. This presentation not only affords a check on the estimates but also shows the interrelation between transactions of consumers, business, and government.

The presentation of the most recent data of the Nation's Budget facilitates analysis of the economic outlook even though we may not yet be ready to make reliable numerical projections.

The Murray bill emphasized the need for projections of the Nation's Budget. I believe it is more important to present, first of all, the most recent data. Aggregates as depicted in the Nation's Budget are now being estimated currently with approximate accuracy.[3]

An analysis, say, of business investments in producer durable goods in relation to consumers' expenditures, or of investment in inventories in relation to aggregate sales, will indicate whether the components of the Nation's Budget are in such a

[3] It is significant that the 1946 Budget of the United States Government, published early in January 1945, presented the Nation's Budget for the full calendar year 1944. At the time of publication not all data needed were available; some were based upon Department of Commerce forecasts. It is remarkable that these partly estimated data differed only slightly from the actual data published several months later. The Review of the 1946 Budget, released August 2, presents an estimate of the Nation's Budget covering the fiscal year ending June 30, 1945. (The 1947 Budget, transmitted in January 1946, presented the same data through December 1945.)

relation that a continuation or a change in the rate of business investment or inventory movements can be expected. The direction if not the quantity of the expected movement can be predicted. Personally, I believe that a skillful interpretation of the Nation's Budget of the past and present is a useful tool for policy formulation, even without a complete numerical projection into the future.

Numerical projections are by no means impossible in principle, but before they can be made with a sufficient degree of reliability statistical sources must be developed further. The next paper deals with the details of sources and procedures for budget projections. I shall confine my discussion to the general principles of Nation's Budget projection.

4 Forecasting the Nation's Economic Budget

To proceed from estimates of the Nation's Economic Budget for the most recent past to those for a future period, three steps are necessary.

The estimator must first determine what changes in basic items he expects even if general economic conditions remain the same. He may expect, for example, a decline in governmental expenditures. Such a decline will be estimated on the basis of assumptions with respect to the necessities of occupation and the speed of demobilization. He will also estimate business investments in plant and equipment for which business men have made their plans. An analysis of inventories may suggest that business will replenish inventories during the coming year. An analysis of foreign demand and plans for international capital transactions may give a basis for estimating the increase in international transactions. All these are 'primary' changes — some reducing, some increasing economic transactions. Changes determined either by noneconomic factors or by business conditions of the past, they are the chief factors determining changes in business conditions in the future.

The estimator must next estimate the effect of these primary changes on gross national product and disposable income, which gives him a basis for estimating the effect of these changes on consumers' expenditures and results in an estimate of 'secondary' changes.

The estimate proceeds from measuring the effect of primary changes on the gross national product. By considering corporate taxes and corporate savings, the estimator obtains a tentative estimate of changes in incomes received by individuals. By considering individual income taxes he derives changes in disposable income. From the past relation between consumers' expenditures and disposable income, a first estimate of secondary changes will be obtained.

The tentative figure for consumers' expenditures, calculated from past relations, will be modified to take account of special conditions. It must be considered whether and how consumers' behavior will deviate in the coming years from their behavior in the past. Deferred demand and accumulated war savings are likely to give expenditure patterns, which, at least for a transitory period, will be substantially different from those of the past. Surveys of consumers' attitudes concerning the use of savings and similar information can serve as a basis for modifying the tentative expenditure figure.

By adding the tentative estimates of governmental expenditures, business investments, and consumers' expenditures, a first approach to the projected Nation's Economic Budget is obtained. A further modification is needed before the results can be regarded as final. Changes in business investments and governmental expenditures were assumed in our example to be in the nature of 'primary' changes; i.e., changes that determine future business conditions rather than changes determined by them. As a matter of fact, all types of expenditure, whether governmental expenditures or business investments, may show primary changes and at the same time respond to general business changes, that is, be subject also to secondary changes. Therefore, adjustments are necessary to take account of these modifying secondary influences. If it is found that business men plan to increase their investments and that other factors are expected to cause a slump in general business conditions, business men may modify their original plans and cancel some of their plans for expansion, or they may cut down on the inventory accumulation that would have taken place had no change in economic conditions arisen.

In this third step all the estimates of the components of the Nation's Budget are adjusted in order to assure consistency.

The need for such adjustments arises from the interdependent nature of our economic system. It cannot be denied that this step introduces an element of judgment and possible controversy in economic projections. On the other hand, these adjustments will usually affect only the size of the projected change, not the basic direction.

The greatest deficiencies for purposes of national budget projections are probably in data on:

The labor force, particularly the factors that induce people to enter into or withdraw from the active labor force;
Labor productivity in various industries;
The distribution of income and savings;
Consumers' expenditures, savings, and dissavings by income brackets, particularly changes due to changes in incomes;
Attitudes of consumers under various business conditions;
Business investment plans, definite and tentative (the latter being subject to change, depending on business conditions);
Current and prospective activities of state and local governments.

In many fields data are available but need improvement, as, for instance, expenditures and revenues of state and local governments; information concerning business inventories of various types; residential construction; foreign loans. With the present sources of information, only the most tentative projections can be made, indicating the general direction of probable investment rather than exact quantities.

Changes in economic and fiscal policies are regarded as 'primary' factors. The projection should always be made twice — once assuming continuation of present policies, and again assuming that policies under consideration will be adopted. There can be a great variety of combinations with respect to policy assumptions.[4] Budget projections can be regarded as a method of appraising the need for and effect of various governmental policies in terms of their economic repercussions.

[4] Projections based on alternative policy assumptions for accomplishing full employment have come to be known as economic 'models'.

5 Conclusion

It is possible, on the basis of current data on the Nation's Economic Budget, to make statements concerning prospective economic conditions that can serve as a basis for planning economic and fiscal policies. Numerical projections of the Nation's Budget are still subject to considerable 'judgment' and, on the basis of available data, to substantial margins of error, and should, if made at all at this time, be re-examined and revised at least quarterly. The margin of error is especially large at a time when the economy is in the process of demobilization and when consumers and business, with large deferred demand and large accumulated savings, may behave quite differently than they have in the past. Statistical sources, particularly for consumers' expenditures and business investments, require further improvement. With improvement in statistical data, numerical projections of the Nation's Economic Budget will become feasible. They will greatly facilitate the formulation of a rational fiscal and economic policy. However, a national policy need not await such refinements. If only tentative statements concerning the direction of change in the level of business activity can be made at this time, it will be necessary to re-examine the programs of economic and fiscal policy and to revise them in the light of a changing economic outlook.