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Volume Title: Long-Range Economic Projection

Volume Author/Editor: Conference on Research in Income and Wealth

Volume Publisher: NBER

Volume ISBN: 0-691-04141-5

Volume URL: <http://www.nber.org/books/unkn54-1>

Publication Date: 1954

Chapter Title: Long-Run Projections and Government Revenue and Expenditure Policies

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Chapter URL: <http://www.nber.org/chapters/c2938>

Chapter pages in book: (p. 365 - 376)

LONG-RUN PROJECTIONS AND GOVERNMENT REVENUE AND EXPENDITURE POLICIES

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“PROJECTIONS” involve the extension into the future of observed or inferred economic trends of production, consumption, investment, and employment. These projections are not necessarily forecasts, since their validity depends on the fulfillment of certain conditions which it is the purpose of economic analysis to investigate. It is necessary to speak of inferred trends since many projections deal with continued “full-employment” conditions, and we have no record of such conditions in the past. We must, therefore, attempt to infer from a record of cyclical experience what the trend would have been had full employment been maintained in the past.

From the point of view of fiscal policy, projections have been used and are held to be useful for three distinct purposes:

1. To indicate the fiscal policies that are necessary to maintain short-run stability and the long-run trends of economic growth. Without appropriate fiscal (and other) policies, the original trend projections may not be valid.

2. To serve as a guide as to the feasibility of particular expenditure and revenue programs. The present defense program, for example, can only be realistically discussed in the light of the prospects for economic growth.

3. To serve as a basis for the projection of fiscal policies themselves. With given political conditions, the process of economic growth is likely to influence the nature of the fiscal programs that are adopted, and these may or may not be consistent with continued growth at the projected rate. This most difficult and least explored use of economic projections may turn out to be the most fruitful.

A. FISCAL PROGRAMS FOR STABILITY AND GROWTH

Projections designed to determine appropriate fiscal policies came into vogue with calculations of the inflationary gap during the war and, despite a checkered record, have retained their popu-

GOVERNMENT POLICIES

larity in the postwar period. The procedure usually involves an estimate of full-employment GNP (gross national product) derived from estimates of the labor force and productivity changes, and estimates of demand for the national product by consumers, businesses, foreigners, and government assuming that existing expenditure and revenue programs will be continued. If the estimate of expenditures exceeds or falls short of the product estimate, deflationary or expansionary government action is supposed to be required. After 10 years' experience, my attitude toward such calculations has changed from optimism to pessimism.

The difficulties I find with the method are discussed briefly below.

1. An overriding difficulty is that the error in the estimates of expenditure is likely to be far larger than any fiscal program that is likely to be undertaken to *forestall* inflation or deflation. Leaving aside the possibility of errors in the observed data, I do not believe that our knowledge of the behavior relations of the economy is sufficient to permit the estimation of anything more precise than a range of values, each of which must be regarded as equally probable. For instance, if the full-employment national product is \$300 billion, estimated expenditures may range between, say, \$280 billion and \$310 billion. Any attempt at greater precision is likely to be spurious. In this example, the conclusion is that there are both inflationary and deflationary possibilities, with a greater likelihood of deflation.

Depending on the relative importance attached to avoiding deflation as compared with inflation, the government can use the projection as a guide to the *general direction* of its policy. If it decides that expansionary measures are appropriate, it may decide on a tax reduction of, say, \$5 billion. A greater reduction may be unwise unless the government is indifferent to inflation. I do not believe that this example overstates the case in practice; and, if I am correct, it follows that neither long- nor short-run projections can furnish any guide to the precise changes in fiscal policy that it is desirable or feasible to make. The most they can do is to provide a general guide. If the authors of projections would make their computations in ranges, all this would be obvious at a glance. As it is, the use of single-figure estimates gives the erroneous impression that economists have a technique for devising fiscal policies that will forestall economic fluctuations.

2. We know very little about the relation of fiscal policies to

GOVERNMENT POLICIES

economic growth. It is usually assumed that future productivity trends will be unaffected by the nature of the fiscal policy followed, provided (a) that the policy is consistent with the generation of sufficient purchasing power to take the full-employment output off the market, and (b) that sufficient savings are generated to finance the investment required to permit growth trends to continue. We know little about the relation of government expenditure and taxation to entrepreneurial incentive or the inducement to invest. We have no adequate information on the effect of government, as compared with private, procurement on productivity; and we cannot answer the vital question whether the increase in the progressiveness of the personal income tax over the last 20 years has affected the rate of economic growth. Yet in making projections, we are forced by our ignorance to assume that these questions are irrelevant.

3. To project productivity trends under full-employment conditions involves difficult questions with respect to incentives and the effects of economic controls.

It is argued by some that the relative scarcity of labor implied by full employment will prove a powerful incentive to technological improvement. On the other hand, full-employment policies are likely, in practice, to include redistributive measures designed to reduce the relative share of profits in the national income. If incentives have anything to do with the increase in productivity, projected trends of full-employment output must be subject to a wide margin of uncertainty.

At the present time, it seems likely that full-employment policies will be associated with a more extensive use of direct controls over prices and wages than has previously been considered necessary. Some countries may deliberately choose a suppressed inflation route to full employment. In fact, if no appreciable fluctuations in employment are permitted, a policy of mild inflation suppressed by direct controls may be the only feasible course of action. We know very little about productivity trends in a controlled economy and still less about the extent to which the experience of a relatively free economy can be used to project economic growth under controlled conditions.

I know it is easy to get carried away by skepticism in this field, and that important economic trends and relationships have exhibited remarkable stability in the face of institutional change. Nevertheless, if projections are to be used to determine specific

GOVERNMENT POLICIES

policies rather than to serve as a guide to the general direction of policy, a high degree of accuracy is required. If we project the improvement in our knowledge over the last 20 years, it seems to me unlikely that sufficient accuracy will be achieved in the foreseeable future.

I am afraid that economists and statisticians have retarded progress toward a satisfactory policy by overstating the predictive power of their projections and by being overoptimistic about the possibilities of improvement in their techniques. The impression that we have within our grasp a device that will show how the business cycle can be forestalled has diverted attention from the need to construct remedial mechanisms that will counteract unemployment or inflation after it has appeared. My present point of view is that fiscal policy should normally follow well-defined rules, such as the principle of the Committee on Economic Development of balancing the budget at the full-employment level of income or the "marginal balanced budget principle."¹ Special preventive action should be taken only in the event of major, foreseeable changes, such as mobilization. But apart from that, economists should admit the limitations on their power to forecast and direct their attention to remedial measures that will come into effect as promptly as possible after it has become clear that there is something to be remedied.²

B. THE FEASIBILITY OF PARTICULAR FISCAL PROGRAMS

The difficulties I have mentioned limit the usefulness of projections for considering the feasibility of new programs of expenditure and taxation, but it nevertheless remains essential that long-run programs be considered in the context of a growing economy. If that were done, much of the alarmist literature about the burdensomeness of old-age pensions would appear exaggerated unless it could be demonstrated that the payment of old-age pensions, and the methods used for raising the money, would impede the increase in productivity. Similarly, the feasibility of a long-run mobilization program depends not so much on its initial impact as on the prospect for increased living standards that it permits in the long run. A program that permits no increase is

¹ "Economists' Statement on Revenue and Expenditure Policy," *American Economic Review*, December 1949.

² This is the point of view of the United Nations Report on *National and International Measures for Full Employment*, December 1949.

GOVERNMENT POLICIES

in serious danger of losing support as time goes on; and one that demands successive cuts in living standards is likely to be rejected at the outset.

This point of view has been adopted in the United States and other countries that are now in the process of rearmament, but many of the projections that have been made to support the military programs can be regarded as little more than wishful thinking. The rate of productivity increase has been put at a figure, within the range of possibilities, that will produce the desired results. Such projections represent one plausible outcome, but there may be many others that are equally probable.

If the projections of potential national product were submitted as ranges of possibilities, the policy issues would be revealed in their proper light. Only a policy of extreme urgency would be justified if its feasibility depended on national product figures that lay in the upper reaches of the range. The feasibility of deferrable or discretionary programs should be based on less optimistic productivity assumptions.

In the tax field similar perplexities arise. I assume the trend of taxation in the future will continue to be in the direction of greater progressivity. The relation of progressivity to productivity is very largely unknown. In fact, we do not know how progressive the tax system really is. We do not know, for instance, the extent to which executive remuneration is determined on a before-taxes basis, and the extent to which it is determined on an after-taxes basis.

Decisions on tax policy should be reached with a consciousness that they are made in a large area of uncertainty. Existence of that uncertainty should lead to a relatively conservative attitude toward increased progressivity of the individual income tax. There are no arguments that increased progressivity will increase productivity, and there are persuasive arguments that it will impair economic incentives, although the statistical record of the United States economy over the last generation indicates that they have frequently been exaggerated. The risks of impairing the rate of growth of the economy are so great that they should not be ignored in making policy decisions.

C. THE POSSIBILITY OF CONTRADICTIONS

The third type of projection transcends the traditional boundaries of economics and requires excursions into the unfamiliar fields of

GOVERNMENT POLICIES

politics and sociology. In fact, one of the distressing things about economics seems to be that the answers to many of the important questions that economists raise must be sought outside their own discipline.

The economic life of the modern industrial economy seems to be dominated, on the one hand, by the efforts of individuals and classes to improve their own well-being independently of anyone else and, on the other hand, by redistributive efforts in the direction of equality. In the redistributive struggle, fiscal policy has played and will probably continue to play a major role. In fact, it may turn out that it is the only effective means whereby redistribution can be brought about—apart from the egalitarian tendencies that seem to be inherent in the process of capitalistic development.

I suggest as a possible hypothesis that, for any group or class, redistribution in its favor and an increase in living standards, which depends on increasing productivity, are partial substitutes for each other. The slower the rate of productivity increase, the more intense will be the struggle for redistribution and vice versa. While it is impossible to prove the correctness of this hypothesis, a comparison of the history of the United States with that of Europe suggests that it is plausible.

If my hypothesis is correct, it may give rise to serious contradictions within the capitalistic process, depending on the answers to some of the questions raised above. It is possible that a slowing down of the rate of productivity increase may increase the demand for redistributive fiscal measures that may in turn retard productivity even further. In this way, a vicious circle leading to economic stagnation may set in. On the other hand, rapid increases in productivity may lead to difficulties of an opposite kind. Redistributive measures may not be undertaken rapidly enough to maintain consumers' purchasing power. These possibilities lead to the conclusion that there may be an optimum rate at which redistribution should be undertaken in the general interest.

It should be one of the major tasks of long-run projections to indicate whether such contradictions are likely to occur, and also to bring to public attention the increases in living standards that can occur if economic growth is unimpeded. I believe the redistributive struggle has received a powerful impetus from the pessimistic conclusions of the classical economists and the static assumptions that have dominated so much of economic analysis.

GOVERNMENT POLICIES

In some countries, at any rate, a shift of emphasis toward increased productivity is needed. Again, as Schumpeter has so forcefully pointed out, long-term projections should make clear the redistribution that is involved in the growth of mass production, which cheapens items of mass consumption but leaves unchanged the prices of many items—notably domestic service and housing—consumed by the higher income groups. The commonly used practice of deflating all incomes by an index of the cost of living of relatively low income families obscures this process entirely. Of course, these remarks may result from myopic preoccupation with present difficulties. We may someday return to the simple faith of the thirties, when redistribution and economic growth were supposed to go hand in hand.

Economic research that throws light on the relation of economic growth to the distribution and the redistribution of income is as important as any of which I can think. But the way is difficult. A dynamic analysis will make redistributive measures appear less feasible than they do under a static analysis; and such conclusions are likely to be considered biased. Furthermore, the limitations on our knowledge of long-run economic processes are so great that attempts to reach definite opinions are likely to be affected by subjective judgments.

I hope this paper will not be construed as an attempt to deprecate long-run projections in the wider sense of the term. But I do deplore the amount of time and effort that is now going into the statistical computations of projections which may have little more validity than attempts to guess the height of the emperor of China. Study of detailed models can be carried so far as to divert attention from the study of their foundations. Attention should be redirected toward qualitative and quantitative studies of what has happened in the past and of what is happening in other countries. As for the future, knowledge of the past provides so much room for constructive exercise of a wide variety of intuitions and insights that it is premature to attempt to imprison the human intellect in a computing machine.

C O M M E N T

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There are a number of different kinds of arguments in Mr. Smithies' paper, and it is sometimes difficult to tell whether he is objecting to long-range projections, to full-employment policy

GOVERNMENT POLICIES

in general, or to possible misuse of long-range projections as a tool of full-employment policy. It does emerge clearly, however, that in view of the very incomplete knowledge which economists have of the dynamics of economic growth, he distrusts attempts to alter the institutional structure of the economy for the purpose of attempting to maintain continuous full employment. As an alternative, he would deal with the problem of cyclical fluctuations through automatic stabilizers, such as variations in government receipts supplemented by *ad hoc* measures to alleviate specific situations once the need has been made clear.

In attempting to improve the structural relations within the economy, there is always the danger that some of the factors responsible for economic growth may be weakened or impaired. Since quantitative projections cannot deal explicitly with such intangibles as the strength of economic incentives, it is apparently Mr. Smithies' fear that the use of such projections might give rise to policies which fail to preserve and strengthen such incentives. Thus it is quite conceivable that if a quantitative projection seems to demonstrate that consumer purchasing power will be insufficient to maintain full employment, a tax system might be devised which would favor consumption, but which might penalize enterprise and initiative unduly.

A reluctance to tamper with the economy is indeed prudent if there is a sound basis for believing that the present (or, let us say, pre-Korean) institutional structure is conducive to some sort of middle way between inflationary and deflationary longer-term developments. However, the problem of incentives and obtaining desirable rates of economic growth must be faced whether we rely on so-called automatic stabilizers or on attempts to alter institutions so that the chances for serious cyclical deviations are minimized. A good system of automatic stabilizers is precisely one in which the marginal rate of tax on income changes is high, which in turn entails a high degree of progression in tax incidence. The degree of progressiveness in the tax structure would very likely be higher in a system relying primarily on automatic stabilization than in one in which attempts were made to provide a viable set of long-term relationships. In general, devices which sustain income in the event of an economic downturn, such as progressive taxes, adequate unemployment compensation, and farm price supports, may not be the types of institutional arrangement which

GOVERNMENT POLICIES

maximize personal exertion and efficiency, however desirable and necessary they are from other points of view.

The identification which seems to exist in Mr. Smithies' mind between the highly progressive present income tax, long-range projections, and attempts to equalize the income distribution is a little puzzling. The present tax structure, which he thinks may be injurious to incentives, is certainly not the result of projections of any kind, or of egalitarian theories about the income structure, but mainly of the necessity of channeling about a quarter of the national income into government revenues. If we except the tax increases following the Korean outbreak from consideration, the tax structure, as a whole, has surprisingly little progressiveness, as has been shown by Musgrave and his associates.¹

The emphasis which Mr. Smithies places on securing high rates of growth of income as compared with securing greater income equality is one with which few would quarrel. It is also true that the maintenance of adequate rewards for individual effort is necessary to realize income growth; nevertheless, incentives are only one in a complex of factors determining the rate of increase in productivity. In a more measurable category are government policies with regard to development of mineral and other natural resources, flood control, and other public works. An analysis of the relation between government developmental expenditures, long-range projections, and economic growth rates would have been an interesting addition to this paper.

MORRIS A. COPELAND, *Cornell University*

Professor Smithies has already recognized that he has not really tackled the subject he was expected to. But his acknowledgment does not go far enough. Clearly an essential part of a long-run projection of the gross national product is a long-run projection of government final-product demand. And for this purpose, it will hardly suffice to make a projection on the basis of existing government programs, even if the term "programs" is construed so broadly as to take account of new legislative implementations from time to time. A review of the past development of government gross national product expenditures makes it urgent, for our long-run projections, to attempt an estimate of

¹ R. A. Musgrave, J. J. Carroll, L. D. Cook, and L. Frane, "Distribution of Tax Payments by Income Groups: A Case Study for 1948," *National Tax Journal*, Vol. iv, No. 1, March 1951.

GOVERNMENT POLICIES

the further growth of government functions. It may be suggested that the problems which this type of estimate present are in part analogous to those in another area of projection, viz., personal consumption expenditures. In the case of this latter component of final demand, it has been customary to allow for a gradual rise in standards of living of persons considered in their individual and household aspects. We must allow, also, for the rise in standards of living of persons in their collective aspect.

Much of Professor Smithies' paper deals with "the relation of government expenditure and taxation to entrepreneurial incentive or the inducement to invest." On this subject, he seems to speak as a thoroughgoing agnostic. But, somehow, he turns out to be an agnostic with rather definite convictions. His comments run mainly in terms of incentive effects of tax system changes that squeeze the share of profits in the national dividend or diminish the inequality of income size distribution. And he tells us that "There are no arguments that increased progressivity will increase productivity, and there are persuasive arguments that it will impair economic incentives. . . ."

His conception of the subject of the incidence of taxation on incentives is too narrow and the conclusion cited is in need of substantial qualification. His conception is too narrow because it is too aggregative. Surely, in exploring the incentive effects of taxation, we need to consider particular forms of taxation. Let me give two illustrations: (1) it is widely conceded that the corporate income tax discourages corporate equity financing, and (2) it has frequently been pointed out that the real property tax has adverse incentive effects on investment. When an enterprise must choose either a larger investment in plant and equipment and lower variable costs or a much smaller investment and higher variable costs, the real property tax tends to favor the latter alternative. Further, when an enterprise holds proven wasting natural resources, this tax tends to encourage their rapid depletion. I suggest these forms of tax incidence are illustrations of incentive effects that need to be reckoned with in long-run projections.

As to Professor Smithies' assertion that there are no arguments that taxes designed to reduce income inequality will increase productivity, I would refer him to my paper on income size distribution (*American Economic Review*, Vol. 37, pp. 56ff.), where several are cited. There are certainly arguments. He may not like

GOVERNMENT POLICIES

them, but he should not attempt to deny their existence. I will mention one here. Many have argued that the right to live by owning fosters an idle, unproductive class; that decreasing income inequality by decreasing the share of personal income from property will tend to increase the national product.

Professor Smithies is skeptical not only about tax incidence but also of projections themselves. He condemns, in the same breath, long-run and short-run projections as equally fallible guides to fiscal policy. This seems an indiscriminating condemnation. I would call his attention to the fact that the use of very short-run projections merges into the use of preliminary actuals as a basis for a steering wheel fiscal policy.

Finally, let me offer, on behalf of Dr. Brill and of myself, one comment that applies not to Professor Smithies' paper alone, but to the aggregate of all the papers. Nearly all of the discussion has emphasized items that appear in the gross national product account itself. I recall only one mention of the financial structure of the economy (apart from my own reference to the possible narrowing of corporate equities, above). Certainly we need to take account of the trends in the financial structure of the various economic sectors in attempting long-run gross national product projections.

