

ANTICYCLICAL EXPENDITURE VARIATION

Walter Froehlich, professor of economics, Robert A. Johnston College of Business Administration, Marquette University

Relief payments and public works during bad times can be traced back through a long history. At least toward the end of the great depression, a more systematic development of fiscal policy in order to stabilize the performance of the economy has been tried. In good times business expands, spending more than its revenues. Therefore, business must borrow, partly from the banking system, or must in other ways acquire additional funds. In bad times business contracts; that is, spends less than its revenues. Fiscal policy attempts as nearly as possible to stabilize the flow of expenditure in the economy and thus presumably the level of economic performance as a whole. Thus, government spending must become compensatory spending moving in the opposite direction as business spending moves. Government revenues should be greater than expenditure in prosperity, less than expenditure in depression.

During the last decades, we have become more aware of a great number of related problems. There is a delicate interdependence of fiscal and monetary measures. Moreover, fiscal policy is not only expenditure policy. The 1955 papers and hearings before the Subcommittee on Tax Policy of the Joint Committee on the Economic Report have considered tax policy. Debt management has become more relevant because of the size of the debt and the necessary amount of yearly refunding.

It is widely held that the major contribution of monetary policy is to be expected during prosperity and that the main contribution of fiscal policy is to be expected during depression. Yet, the prevailing economic situation of the last 15 years makes it imperative that the possible contribution of fiscal policy in times of prosperity and inflation be more fully explored. The present situation has been called an uneasy triangle. Full employment, price stability, and absence of direct controls (over wages and/or prices) are not easy to achieve simultaneously. Full employment and price stability may be had, perhaps, at the price of direct controls—with far-reaching adverse economic and sociopolitical consequences—but direct controls are, at least in peacetime, ineffective and on the whole destructive of our economic, social, and political system. Price stability and freedom from controls may be achieved, perhaps, at a more modest level of employment—again with far-reaching adverse economic and sociopolitical consequences. High level employment without direct controls may involve creeping inflation. The indirect and extended consequences of prolonged creeping inflation have not yet been fully explored. To this present situation, we have to apply expenditure policy. A high rate of growth likely does ease conflicts. In addition,

measures of market policy like making the market structure more competitive, prices more sensitive, may be helpful.

Finally, we have become increasingly conscious of the fact that economic analysis cannot simply relate the large aggregates and hope to find useful, stable relationships between them. Such an analysis would be at best only the first step. We shall have to strive at more disaggregation, at consideration of smaller, more restricted aggregates having more complicated and possibly less stable relationships between them.

Stabilization shall refer throughout this paper to the short period of essentially cyclical variation as contrasted to problems of growth or of stagnation. Existence of cyclical patterns is assumed and no inquiry is intended into the length, regularity, type, and recognition of these fluctuations. Stabilization entails primarily stabilization of output and of employment, not primarily of prices. The relation of stability to growth has been discussed in preceding papers. Possibly, too much insistence on stability (absence of cyclical variations) may affect unfavorably the rate of growth. Questions of the immediate future will also be excluded from this paper as they have been discussed in hearings before this committee in June 1957.

In order to avoid overlapping and repetition as far as possible I shall consider exclusively the expenditure aspects of Federal fiscal policy in regard to short-run (anticyclical) stabilization, that is, mitigation of cyclical fluctuations in output and employment. Three areas will be touched upon:

1. Some relevant aspects and measurements of aggregate output and employment as yardsticks of expenditure policy.
2. Some relevant aspects and measurements of expenditure and expenditure change in regard to anticyclical policy.
3. Some relevant criteria and measures of repercussions of expenditure change in regard to short-run stabilization.

NATIONAL INCOME AND EMPLOYMENT AS MEASURES OF SHORT-RUN STABILIZATION

Concepts of aggregate output and equivalent concepts of aggregate income serve different and possible conflicting purposes. We can, of course, construct simply convenient pragmatic devices for a study of economic relations. But when we look at national income (the money equivalent of output) as a measurable achievement, we have in mind the net yield of economic arrangements in the sense that more income means that people are better off. Changes in the purchasing power of money should be taken into consideration. Much thought has been given in the literature to the index number problem. It seems, though, that the choice between different index numbers is not of major practical importance. Real income (as a rule per capita) is a widely accepted measure of economic performance. It would be outside the scope of this investigation to discuss difficulties which arise from comparing incomes under different social systems, in fully developed and underdeveloped countries or in countries of very different income distribution. Yet in connection with public finance other pertinent problems arise.

First let us consider a minor technical problem. We arrive at national income by subtracting from gross national product capital

consumption allowances and indirect business taxes. This treatment of the latter means that the measured achievement (national income) is different according to whether it is financed by these indirect business taxes or by a corporate income tax. In fact it is rather likely that both taxes are frequently shifted in a very similar way. It is very doubtful whether the different manner of taxation means a significant difference in the price level. If we justify deduction of indirect business taxes because they supposedly are equivalent to the value of government services to business and hence must be deducted in order to avoid double counting, the arbitrariness of such an evaluation is only too apparent. Yet, as in the short run the structure of the tax system probably does not change greatly, this question may be dismissed as being of minor importance.

There is, though, a more fundamental difficulty, which cannot be overcome. We consider the "product" of government a part of and an addition to the gross national product. A final purchase is, according to customary terminology, determinative for the national product and income aggregates. A final purchase, that is a purchase not for resale by the individual, is either one for consumption (and thus indicative of anticipated satisfaction from consumption directly) or for final investment (and thus indicative of anticipated satisfaction through the roundabout process provided by investment). This relation to "satisfaction" cannot be ascertained for government purchases of goods and services. In the absence of evaluation by a market, that is of market prices, a valuation at cost is a customary and wise business practice leaving the correction one way or the other to the final realization through future action in a market. Such final correction is missing if we evaluate the government product at cost. The judgment of the economic subject that cost spent by him measures approximately the expected advantage to the individual until corrected by later realization is basically a useful assumption. Extension of such reasoning in order to maintain that cost incurred by the Government approximates the value of the services to the citizenry never to be corrected by the action of buyers and sellers in any market, generates grave doubt. This is as true for democratic as it is for totalitarian government. Elections serve many other complex functions; they cannot be considered ratifying specific government spending by every individual taxpayer. Proposals have been made to evaluate the government product. It has also been proposed to distinguish government services which may satisfy the individual citizen and which he would presumably buy if they were offered in a market and consider only those an addition to the gross national product. Health services are an example. The bulk of other services which are, perhaps, more necessary, as for example maintaining the framework of society through security measures, may not qualify under such a test.

The difficulty of evaluation and classification are quite clearly not mere matters of statistical procedure. The statistical details of which expenditure goes or does not go into making gross national product as defined by the Department of Commerce can be learned from the estimates of Federal receipts and expenditures published by the Department.¹ It has been proposed that for the purpose of making

¹ See Young, *The Government Sector. A Reconciliation of Alternative Budget Concepts. Conference on Research in Income and Wealth, Studies in Income and Wealth, vol. XX. Princeton, 1957.*

welfare judgments we should use two indexes, one for private services and private consumption using a market price index as deflator, and another for "final collective welfare goods" using a cost index as deflator. The two subtotals cannot be added up in a meaningful way for measures of welfare. They should better be regarded as providing some evidence, which people may use to assist them to make welfare judgments.² The usefulness of customary national income aggregates at least for welfare purposes must be doubted. Where the problem is whether increased government expenditures are helpful in some way, the use of government expenditures as measure of income creation at cost, that is as measure of achievement, simply begs all questions. An evaluation of government product is at best a difficult and frequently an arbitrary value judgment. To include some and to exclude other services according to whether they are similar to privately furnished services is quite unsatisfactory. Certainly, government activity does frequently increase human welfare, satisfy what one may call collective wants. In fact, many government services (like national defense) are of overriding importance, but their importance cannot be simply measured for our purposes in the manner appropriate to the measurement of the private sector of national income. Public expenditure may, in addition, indirectly lead to increased private consumption and possibly private investment, though overwhelming negative effects on private investment in real terms are also possible. These indirect effects come about over a prolonged period of time; they cannot easily be measured or predicted as to size. It is frequently uncertain whether these total indirect effects are negative or positive, smaller or larger than the government expenditure. This is especially true when the expenditures are made during a time of relatively high level of employment or if they are financed from tax receipts. If, on the other hand, national income is only meant to denote a goal of a certain amount of employment opportunities at certain wage rates, then any national-income figure does not mean more than the corresponding employment figure. To state the employment figure directly is preferable, if only for greater clarity.

The Employment Act of 1946 is on solid ground to consider employment directly as a measure of economic stabilization. Measures of unemployment are somewhat less reliable than measures of employment. The former require measurement of the labor force as well as of employment with a possible statistical bias in opposite directions.

Defining full employment as the situation where more vacancies than unemployed exist in the aggregate or the like (unfilled vacancies approach) leads to setting required employment at a figure where serious inflationary pressure and other distorting influences will be overwhelming. The serious shortcomings of this type of definition do not have to be discussed any more. Full employment can also be defined as the degree of employment that exists when the aggregate demand for commodities is at the highest level that is compatible with the condition that demand at existing prices (or at the prices of the last previous peak) is balanced by current supply or the like (price approach). This type of definition is of small help for policy forma-

² I. D. M. Little, *A Critique of Welfare Economics*, Oxford, 1950.

tion because full employment as defined may be reached at a very low level of unemployment (Lerner's high level full employment) or quite possibly at a very high level of unemployment (Lerner's low level full employment). The latter situation may be caused by rigidities, bottlenecks, monopoly situations in business and labor, and so forth. Price rises sufficient to cause price level rises may, indeed, start at a fairly low level of employment. Reliance on large aggregates and their average behavior may be misleading. We may have to consider the different behavior of industrial and agricultural prices, of prices of manufactured goods and services, etc. It bears investigation whether monetary and fiscal policy can well stabilize price levels if prices in large areas are administered and hence less responsive to overall measures. In this case at least a very great, more than proportional, impact on the responsive, sensitive prices in the more competitive sector of the economy may be needed to reach any desired overall level. It seems that in the balancing of objectives under the Employment Act of 1946, maintenance of a certain price level must not be a necessarily overriding consideration.

The market structure in the markets for the outputs, and the workings of the institutional setup of employment influence employment and wages and have to be considered every time, especially if they do not stay invariant over the change. Generally speaking, there will be less unemployment in a growing economy than in a stationary one. On the other hand, a growing economy requires changes and a high level of investment. For that reason, frictional unemployment due to industrial and regional change will be relatively high. This type of unemployment in a growing economy such as ours has been estimated as high as 4 percent of the labor force. This kind of unemployment cannot properly and successfully be alleviated by overall monetary—fiscal measures.

We have to be satisfied with the use of benchmarks, guideposts, or similar rules of thumb. In fact, we do not need to establish a single benchmark for full or maximum employment. What we need are several benchmarks, every one denoting a number of unemployed for a stated period of time. The term "unemployed" may have in every case a different definition. Every benchmark should give us an occasion to consider when certain anticyclical expenditure measures ought to be started. We may use a figure or a percentage, but we have to be careful which definition of unemployment we relate to that figure or percentage. Different definitions of unemployment can, perhaps, be used equally well in connection with different benchmarks. Different benchmarks might be in place for considering more time-consuming legislative action and for starting swifter administrative action. The most important signpost is the figure of unemployed required for large-scale public works to be financed largely by budgetary deficits. There must also be signposts developed for restrictive government action in an employment situation where inflationary pressure becomes too great.

In general, if the public understands and approves governmental action, such publicly supported action is likely to be more effective. Nevertheless, it does not necessarily follow from these premises that contemplated tentative benchmarks should be made available to the general public. The situation is somewhat though not fully simi-

lar to the situation common to monetary policy. As a rule a policy is the more effective the less the general public knows in advance the means available to and the specific measure of, let us say, the Open Market Committee of the Federal Reserve System, and therefore is not able successfully to counterspeculate. The tentative nature of our knowledge may also be a good reason not to state goals publicly in advance.³

Presently, our knowledge of desired achievement, means, time, and dosage is much too uncertain to consider the enactment of programs to be started automatically at the reaching of a certain benchmark (formula flexibility). Foreign experience in that matter seems inconclusive and on many grounds not applicable to the United States.

MEASUREMENT OF EXPENDITURES AND EXPENDITURE CHANGES FOR PURPOSE OF SHORT RUN STABILIZATION

Measurement of public expenditure (or more specifically of Federal public expenditure) is dependent on the purpose to which we want to apply the result. We are presently concerned with spending for stabilization. For stabilization purposes the actual cash flow will be of primary importance. The administrative (conventional) budget is of little help. A statement of receipts from and payments to the public (consolidated-cash budget) will be of greater significance. The Bureau of the Budget as well as the Treasury provides us with statements of this kind. There are a number of steps in the process of spending that can be distinguished; further refinements may easily be made.

1. Statutory enactments and administrative action, which will lead in due time to expenditure; e. g., a civil servant is hired or a soldier joins the Armed Forces. They will in due course acquire rights or at any rate will have to receive benefits of some kind. Authority to make contracts may exist preceding appropriations as for example in military procurement and in construction. Government enterprises may have authority to spend money they have been authorized to borrow from the Treasury or from the public without further appropriations.

2. Appropriations proper (authority to obligate and to spend).

3. Actual administrative incurring of obligations or making of commitments.

4. Actual production of goods for the Government, which as a rule leads to private expenditures in producing them.

5. Actual delivery of goods and services to the Government whereby claims against the Government arise.

6. Payments actually made under appropriations (outlays). These come about under previously incurred obligations but also without previous obligation.

Unobligated obligational authority carried over as well as unspent obligated appropriations carried over complicate the budgetary picture; so do—to a much smaller extent—supplementary and deficiency appropriations.

There is a wide and growing range of Government activities, the exact classification of which may be somewhat in doubt but which

³ Samuelson in Colm, ed., *The Employment Act, Past and Future*, Washington, 1956.

should be included with the expenditures. In a technical sense, loan guaranties (e. g., Federal Housing Administration, Veteran's Administration) are not expenditures. As the Government as a rule does not have to reimburse anybody due to the guaranty, this guaranty will not even lead to a governmental expenditure. Such activity might be considered stimulating, promoting, making possible private expenditure. But for the purposes of stabilization these activities should be treated like governmental expenditures. The same is true for long term leases of, for example, specially built postal and office facilities. Technically only the rental is an expenditure, but the economic effect is the same as if the Government had spent the money to build the facilities. Abatement of taxes due to carryback provisions should be considered an expenditure, because the tax reduction is due to facts which have largely occurred after the tax has been paid which is now reduced by the carryback of losses. Tax refunds due to tax litigation, though they also do improve the cash situation of the recipient and are paid out of appropriated funds, may better be treated as decreasing receipts from taxes.⁴

Every one of the steps enumerated above has economic consequences. Some effects will occur during the earlier stages in anticipation of expected government expenditure, some repercussions will come about after the receipts from government are resented by the recipients. The former effects are not easily treated in a formal manner, as it happens frequently with attempts at formal treatment of expectations. Privately financed deficit expenditure on government account (to borrow a term Professor Hart has used in the June hearings) is important in military procurement, especially in the earlier stages of industrial planning and of preparation of actual production.

Control of spending is divided between the legislative and executive power. Congressional control ends as a rule with appropriation. This control is further complicated by unused and carryover obligational authority and spending authority. Administrative control concerns itself with the steps following appropriation.

Generally speaking a step that makes very likely the occurrence of those following it will be the most important step. Much depends on when anticipatory action can and will be taken. An appropriation that conforms to a willingness of the administration to spend it will be an important step. Sometimes the letting of contracts will have the strongest impact leading to anticipatory private spending. Sometimes only actual expenditure will count. The relative importance of every step is different according to circumstances. Anticipatory private spending and anticipatory private use of resources, not only the periods of income propagation following the expenditures, have to be considered. Expenditurelike activities (guaranties, etc.) may be very important. The use of large aggregates and the use of single time points to judge the process will lead to serious oversimplification.

Variation of government expenditure can be measured in terms of flexibility. Flexibility may mean an absolute (dollar) change or a percentage change relating government expenditure and an external variable (like gross national product or employment). As discussed above expenditure in the wider sense may be measured at any of the

⁴ See on these problems C. Lowell Harris, *The Journal of Finance*, 1954.

steps outlined above, though actual spending is the most important step; the relevance of the large aggregates to which expenditure is to be related is also open to doubt. The change is usually measured without reference to the time which has to elapse before the measured result comes about, though lags are important.

Built-in (automatic) flexibility of expenditure should mean that under existing programs and statutes (without legislative change or major exercise of administrative discretion, though appropriations may be still needed) expenditure will change as the result of change of the gross national product or of employment. Unemployment benefits or relief payments may serve as an example. The expenditure change in turn may influence the size of gross national product and employment. In actual measurement change in gross national product causing expenditure change and change in gross national product modified by expenditure change will not be easily distinguishable, though the economic processes are distinctly different. Built-in flexibility of taxation has increased very much over the last generation due to the increasing importance of personal and corporate income taxes. This flexibility may be too great and thus cause instability, or it might just be sufficient. Nevertheless, the opinion is widely held today that the effects of built-in flexibility of taxation are not strong enough to mitigate economic fluctuations sufficiently. Built-in flexibility of expenditures, like relief payments, would add to the stabilizing influences. The fluctuations of payments in agricultural programs do not follow a clear anticyclical pattern. Unfortunately, flexibility on the whole has declined considerably as against the thirties largely due to the preponderance of military expenditure. Only the slightest degree of flexibility can be assumed in that area and that only in the sense that if there were widespread unemployment and social unrest in the Western World the aggressive propensities of the Soviet Union would probably increase and then require more expenditure for defense and foreign aid. We may measure built-in flexibility in a very simple way such as A. G. Hart's formula :

$$\frac{\text{Dollar Increment of Deficit}}{\text{Dollar Increment of Gross National Product}}$$

We may develop more specific formulas using specified models of the economy. Due to the present size of governmental expenditures even relatively small variations must exert considerable influence. Nevertheless, our reliance on built-in flexibility of Federal expenditure should be slight.

Legislative and administrative flexibility is an autonomous change, measured by the dollar or percentage change of expenditure. Such change will presumably bring about a change in gross national product or employment. One must compare the situation with the one which would have developed in the absence of the expenditure change.

The degree of variability and the speed of variation do not go hand in hand. Frequently speed of expenditure change will be greater than speed of revenue change. The speed of possible increase of expenditure is different from the speed of decrease of expenditure. The measure most frequently proposed to speed up expenditure increases is the public works shelf. If the (necessarily inexpensive and long

drawn) planning stage of public works would precede the time of need, faster spending would be possible when need arises. This procedure is not without danger as every planned project has an innate propensity to be executed irrespective of the business cycle. The speed with which projects once started can be stopped is something else again. Canals are likely to be completed. Road improvement can be done piecemeal and is easily terminated; this adaptability in terms of anticyclical policy should not lightly be sacrificed for a long-range program—except if it were suggested such a program were necessary to counteract stagnation. Grants-in-aid and subsidies can seemingly be easily terminated but this termination may not be feasible due to actual or presumed socioeconomic consequences for the recipients, be it private individuals or governments.

Legislative deliberation frequently takes more time than administrative deliberation. Nevertheless, legislative speed (from the beginning of deliberation to the actual expenditure) may well be in any specific case greater than administrative speed. Again, consideration of every case on its merits without much reliance on supposed general considerations will be necessary.

Surpluses and deficits might balance out over the business cycle. We may or may not use a capital budget; at any rate, for true capital items debts may be incurred and capital-consumption allowances may be spread over the useful life of the capital item. For cyclical stabilization, depreciation taken may well be higher in years of prosperity and lower in years of depression. Surpluses and deficits certainly must not balance over the cycle in a progressing economy. The rate of permissible debt rise in relation to the rate of growth of the economy, though, is outside of the scope of this paper.

A debt rise may be also permissible within a fairly unchanging economy, but stringent limitations are to be observed lest the public demand for funds dry up the supply of funds necessary for private investment. There is also the great danger that funds are provided in an inflationary way through the banking system. Finally, the increasing size of the recurrent debt-service burden may have an unfavorable effect, though this seems to be somewhat less likely. Different ways of debt management make for important differences. In general, additional expenditures are expansionary, but expenditures made on servicing the public debt may be contracting due to their asset effects. More spending on interest of the public debt may make it possible to have a public debt of longer duration; such securities will be harder to liquify and more other liquid assets will have to be held by the public or the banks. High interest rates also may make possible a transfer of the securities from the banks to private holders, thus decreasing private funds available. Such a transfer can also be a first step toward monetary restraints in the banking system; that is, it may make possible the application of more restrictive monetary policy. All these considerations, however, go beyond expenditure policy proper.

REPERCUSSIONS OF EXPENDITURE CHANGE ON STABILIZATION

Repercussions can be measured by effected changes in the large aggregates or in some more specific manner. Repercussions may result

from anticipated public spending. On the whole, though, the primary determination of effects of Government expenditures on gross national product, national income, or on employment is primarily through the concept of multiplier effects following spending. The increase in gross national product or national income is measured which is not only due to the initial autonomous increase in investment of Government spending but is also due to the consequent increases in consumption. The multiplier might be a specific public-works or public-expenditure multiplier, or it might be a more generalized investment multiplier. Such multipliers are quite useful in model building, but it sometimes becomes difficult to distinguish between monetary effects (incipient inflation) and effects in real terms (increased level of output). An employment multiplier, that is, the final increase in employment due to public works, though less fitted for model building, does measure directly the desired main result in real terms. Moreover, an increase in income and hence in consumption will lead to voluntary increase in inventories and to increases in investment in facilities producing the consumption goods when the existing facilities are already fairly well used (acceleration). Sometimes increased investment will lead to induced additional investment followed by new multiplier expansion. The total effect has sometimes been called leverage, measured by a supermultiplier (A. Hansen).

In any situation where there exists, at going prices and wages, considerable unemployment and considerable unused resources, any additional compensatory public spending which does not create a compensating reaction through decreased private spending will lead to some additional private spending when the public expenditures are respent by the recipients. This respending will lead with leaks and lags to some additional use of resources and additional employment—that is, additional output at going prices. This additional income will lead again with leads and lags to some additional output and employment and so forth. Any increase in real terms is only possible as long as there is sufficient unused labor and resources available. Studies made before the Second World War about the numerical size of the multiplier effect are largely obsolete due to the changed structure of the economy. These are also presently inapplicable due to the higher level of use of labor and resources. Little recent empirical work has been published due to the fact that employment and output have been rather uniformly high over the last 15 years. Any multiplier effect in real terms is presently presumably very low, and unfavorable effect on private spending likely to be high. Multiplier models have, as a rule, been insistent that the initial step is an increase in autonomous investment or Government spending and the following steps are increases in consumption. In reality, the neatness of the distinction between investment and consumption is somewhat blurred. Recent models consider certain additional repercussions in investment and in consumption. For policy purposes, measurement of repercussions in the past is of help only to the extent that stable relations can be safely assumed over a considerable period of time or a safe estimate of the importance of the changes were possible.

At any rate, fluctuations in investment during the business cycle are much greater than fluctuations in consumption; investment goods play a strategic role in the business cycle. For that reason, as well as for

others, emphasis on spending on investment goods (including construction) seems quite justified.

In a depression, fiscal policy relating directly to expenditures is more forceful than monetary policy which only can make borrowing easier if borrowers want to borrow. Expenditure increases are in depression more powerful than tax reductions, because tax savings may be used for debt repayment, increased cash holdings, and so on. Higher taxes show probably more powerful restraining effects in prosperity than expenditure reductions, though this is somewhat controversial. Sometimes the feasibility of any tax or expenditure variation will depend on the established level of taxation and of expenditure and their socioeconomic consequences. It may be questioned whether Colin Clark's 25-percent maximum level of taxation has empirical validity. Certainly, there are, somewhere, limits to tax increases in a democratically organized society.

A Government surplus will have a restrictive influence if the resultant surplus is sterilized, e. g., in the rainy-day fund, preferably not deposited with the commercial banks. The surplus may be used for debt reduction and still retain its restrictive effect if care is taken that the increase in the spending power of the recipient of the money is in some way destroyed. The classical case is the repayment of public debt to the banks with simultaneous reduction of their money-creating power. If this reduction of the money-creating power of the banks cannot properly be safeguarded, the debt reduction out of surplus will have hardly any restrictive effect.

If expenditures are balanced by revenues the countereffects of the raising of revenues have to be considered. National income is defined as equivalent to the sum of private consumption, net private investment, and labor and resources used by government, neglecting for this discussion the small net foreign investment. Then, most of the time, government, by taxation, absorbs some existing funds which are "income" in the everyday sense of the word, and responds these funds in their entirety. The Government prevents some fraction of the amount taxed from being "saved." If we define "realized" savings as equal to investment, and if we assume they fall short of "intended" savings, that is, savings in the everyday sense, in the situation described above, the decrease in consumption and investment must then be less than the increase in the Government sector of national income (always measured by expenditure, that is, cost). This would be so because the decrease in investment (which investment is less than intended savings) is less the increase in government spending, as some of the taxes fall on savings that would not be invested. Thus, taxing and spending seem to raise, almost by the powers of definition, national income. Under conditions of full employment, people may work in part for the Government instead of for themselves; but, if there is a sufficient amount of idle manpower and resources, the amount of employment and productive services required by the Government may come forth in addition to what is wanted by the private sector of the economy. The money value of all goods and services produced for private as well as for public needs will have increased. In fact, from the employment point of view, the result for the society as a whole will be exactly the same as if the Government had ordered idle manpower and resources without any direct compen-

sation. The additional quantities of goods produced and services rendered may be paid for at unchanging prices. But, it cannot be inferred in which way well-being will be affected. The effect will depend on whether the Government services add to the well-being of individuals otherwise dependent on their net average private incomes. Moreover, it should also be noted that total net private income divided by the number of people who work in both sectors and hence receive income, that is, average net income of people employed, will fall. Only the net private average income—that is, the total net income divided by population or labor force—will stay unchanged. Whether well-being is maintained for the average working person will depend on the additional well-being created by government services. Only if additional people are employed for private needs and their output is sufficiently high to provide the additional goods necessary for themselves, as well as for the people employed producing for public needs, only then will the average amount of privately used goods and services for people working in production for private needs remain unchanged or rise. There might be, in addition, adverse influences of high taxes on investment or on effort.

Certainly no general assumption is possible that such management of government finance is probable or in any way preferable to any other policy. Thinking that balanced budget expansion of the public sector raises the national income by the amount of the expansion can hardly be upheld. The indirect increase in national income, the latter term defined in the customary sense, will be small. In fact, the effects may be negative due to unfavorable indirect repercussions.⁵

Fiscal policy will have some influence on income distribution and hence on the relation between consumption and investment and thus on multiplier values. The change in income distribution will be accentuated if we include in the measure of consumption free or under-priced public services available to and relatively more used by low-income groups. Any pertinent measurement of effects of fiscal policy will require measurement of the distribution of the tax burden as well as of the distribution of governmental payments and services. If the expenditures made and services rendered out of a deficit could be separated from those paid out of taxes it would be possible to speculate whether these additional expenditures tend toward further income equalization. But it is not likely that the equalizing effect of deficit financing over the business cycle will be very pronounced.

Some government expenditure will strengthen, some will weaken private investment; sometimes investment will be weakened by even more than the amount of public expenditure. Effects will not only depend on how the funds have been acquired (taxes, borrowing from private borrowers, borrowing from banks) but very much on the specific manner in which they have been put to use. It is also important how the use of funds influences the general climate of opinion, especially of investors' opinion. Building of pyramids is not deterrent to any kind of private investment yet it will have an unfavorable effect on investors' attitudes in our society.

Total fiscal effects will not only depend on revenue and expenditure of the Federal Government. On the other hand, the financial systems

⁵ See Baumol and Preston, *American Economic Review*, 1955, 1956.

of States and municipalities are not well organized for contracyclical policy. Stringent constitutional or, in case of localities, even statutory debt limitations, and required earmarking of funds make flexibility very difficult to obtain. Individual State and local budgets by themselves are too small to have any recognizable influence on overall fiscal policy. These governments can hardly have any incentive to follow a Federal pattern, except for grants-in-aid that require matching or for similar such devices. It can be shown that Federal deficit spending in the thirties, small by itself, was largely counteracted by disinvestment and debt repayment by States and localities and therefore could not have had under these circumstances any significant stabilizing influence.

CONCLUSIONS

A few tentative conclusions may be drawn :

1. For the purposes at hand large aggregates like total expenditure, but especially such as gross national product and national income, hide significant problems. Their use is frequently dangerous. We need more specific knowledge about relations between more restricted aggregates. We lack sufficient quantitative measurements of repercussions and know little about the degree of stability of established relationships.

2. Deficit spending is as a stabilizing device more powerful than revenue-covered spending. Deficit spending seems very useful (and available alternatives to it most restricted) at low levels of output and employment. At what levels of output and employment the usefulness of this device diminishes and finally ceases is difficult to state. Empirical measurements of final repercussions, but even only of multiplier and related effects, are very rough and uncertain and tend to become soon obsolete. Final effects in real terms change not only with changing levels of output; there are important indirect repercussions from which we cannot abstract. Predictability of final effects in quantitative terms is very limited. The behavior of the general price level or cost-of-living price level is not always necessarily of overriding importance. The influence of certain types of expenditure, of prolonged deficit spending, and of debt increases on the prices and on the climate of public opinion necessary for strong private investment has always to be kept in mind.

3. Emphasis should be on public expenditure favorable rather than on such unfavorable to private investment. For that reason it seems that such expenditures should preferably not be competitive to private investment. On the other hand, such expenditure must have a considerable degree of usefulness not only for the welfare effects to be derived from these expenditures but also because of their impact on public opinion as prevailing in our society. This poses a familiar dilemma in planning and executing public works.

4. A relatively high degree of potential variability and potential speed in starting as well as ending spending programs is important. Built-in flexibility of expenditure can only be relied upon to a very moderate extent. A high degree of social usefulness persisting over the different phases of the business cycle makes spending more desirable by itself. Yet such usefulness poses a very serious problem when termination becomes important. There are, therefore, additional distinct limitations on the desirable kind and intensity of social usefulness

of expenditure when speedy contracyclical variability is considered necessary.

5. Coordination of Federal and State-local policies is desirable but is distinctly limited by the established Federal system.

6. Fiscal policy is supposedly only concerned with levels of output and employment. Different economic activities are influenced in different ways by different ways of spending. It is generally considered within the scope of overall fiscal policy to emphasize that spending favorable to the general level of investment (in real terms) is desirable. The behavior of the investment goods industries (in the wide sense of the word, to include, for example, construction) has a crucial impact on the economy.

7. Anticyclical policy does not necessarily require that the public debt fluctuate around a predetermined size. Sterilization of the surplus may be preferable to debt repayment despite the loss of interest savings. There are distinct and strong limitations to permissible debt rises. The danger of inflation is only one of several limiting factors. The limitations, to be accepted, must leave some room for the feasibility of at least some sudden debt rises due to war or warlike situations.

8. Anticyclical fiscal policy should be content with less than complete success in achieving a set employment and price level. We know too little to permit fairly precise timing and dosage. Attempts at stringent stabilization will have undesirable side effects. Expenditure policy can be used, though, successfully to mitigate considerable fluctuations. The effects of expenditure increase in depression have been much more thoroughly explored than the effects of expenditure decreases in an inflationary prosperity. The determination of the extent of permissible fluctuations in output and employment and in prices should be a primary policy decision. Our restricted knowledge about final repercussions is an additional reason why some degree of fluctuation should be unavoidable. The development of even only tentative benchmarks for legislative and executive action would be of greatest help, though they would not necessarily have to be made public.

A discussion of anticyclical compensatory spending together with a discussion of policies promoting a desirable and feasible rate of growth point toward a framework within which the study of specific expenditure programs should take place. A thorough investigation of specific programs and their specific repercussions at different levels of output and employment is necessary. Repercussions on prices and price levels have to be studied most carefully. At times these repercussions might be of overriding importance. The value of generalized models which relate in money terms the large aggregates to each other is restricted. Such models should be considered only as a very first step toward specific investigations of expenditure programs.