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PUBLIC FINANCE AND FULL EMPLOYMENT

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FISCAL POLICY, STABILITY, AND FULL EMPLOYMENT

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Through a decade and a half of depression finance and wartime expansion, there has been a growing, if hesitant, recognition of public finance as a powerful instrument for maintaining a high and stable level of income. In this first essay the general role of fiscal policy in the postwar economy will be appraised and some basic aspects of fiscal planning will be considered.

WHY FISCAL POLICY?

Government expenditure, tax, and debt policies are of strategic importance to prosperity, because through them public policy affects the level of total demand in the economy. As such, budget policy is a vital factor, quite apart from the intrinsic merits of specific expenditure programs or the equity of specific revenue measures. Budget policy is bound to be a matter of broad economic policy.

Total Expenditures and Level of Employment. Production, employment, and hence income in a private enterprise economy depend upon the existence of the necessary markets. Unless prospective market demand appears sufficient to businessmen to pay for the costs of production and to leave an adequate profit, production will not be forthcoming and resources will be unemployed, as was the case to varying degrees during the thirties. And similarly, unless market demand remains within the limit of available supplies once a high level of employment has been reached, prices will be driven up and inflation will threaten. The key to economic prosperity and stability therefore is to secure and maintain a sufficiently high but not excessive level of expenditures, public and private.

This general requirement is clear cut, but its fulfillment is by no means simple. Policy considerations must begin with the basic fact that there is no self-adjusting mechanism, in a private enterprise economy, which assures that a full employment level of expenditures will be maintained year in and year out, so that neither inflation nor deflation will develop.

The cyclical ups and downs of the past give ample evidence to the contrary. Beyond the issue of stability, moreover, it must be recognized that there is no automatic mechanism, inherent in the private enterprise economy, which assures that the level around which total income and expenditures may fluctuate will be one of good business and reasonably high employment; quite possibly it may be one of low profits and substantial unemployment.

This, of course, is no novel conclusion; rather it is surprising that at times it has been denied. In an economic system where decisions to buy, to produce, to sell, to save, or to spend, are made by millions of separate households, workers, and business enterprises, there is no reason to expect that the multitude of individual decisions necessarily should combine to meet the conditions of full and stable employment for the economy as a whole. Rather, each small planning unit can do no more than to adjust its program to the general economic setting with which it is confronted. Thus consumers must budget within the limits of their current and prospective incomes; workers must choose their jobs depending on what openings there are for them; and businessmen must plan their production according to their prospective markets. Not even large corporations, acting alone, can expect that an addition to their disbursements will substantially affect the market for their products. As far as individual decisions are concerned, general economic conditions, like the weather, must thus be accepted as uncontrollable. These conditions, moreover, are not planned consistently by some central authority, but come about indirectly as the result of a multitude of separate individual decisions. Given a flexible and competitive business structure, we may, over time, expect this process of decentralized planning, that is, the price system, to provide for a reasonably efficient utilization of resources within the limits of a given level of total output, but we cannot expect it to assure a high and stable general level of income and employment. Yet, the events of three decades have taught us that a much higher degree of stability and average level of employment than characterized the interwar period must be achieved after this war.

The goals of stability and full employment as used in this context have a well understood, commonsense meaning, but some comment may be needed to avoid misinterpretation. Leaving aside matters of technical definitions which are less important, the terms express the need for setting our sights high and for preparing to meet contingencies. Stability obviously does not imply that the general level of income and employ-

ment should never be permitted to vary. In a growing economy income must increase if resources and labor are to be kept employed, and in the process of growth some fluctuation in employment and resource utilization is desirable, provided it is assured that excessive instability will be forestalled. Full employment similarly does not mean that the strained wartime level of employment should be maintained, that all frictional unemployment can be avoided, or that an unreasonable premium should be placed on jobs as against education, home keeping, or voluntary leisure. Nor does it mean that at times there should be no losses or shrinkages of employment in particular industries. It does mean, however, that business as a whole should be profitable and that there should be no group desiring to work who suffers sustained or permanent unemployment. If the reader should prefer, the terms "sustained income" and "high employment" may be substituted without changing the basic argument.

The potential national output at full employment for a later post-transition year, say 1950, has been estimated in the neighborhood of a gross national product of 200 billion dollars, measured in 1944 prices. Whatever the precise figure, 200 billion may be used to illustrate the problem. If 200 billion dollars worth of goods and services are to be produced, there must be buyers—including consumers, business, and Government—standing ready to purchase that much. On the other hand, if 200 billion dollars worth of goods and services are produced and sold, the community will receive 200 billion worth of gross receipts, in the form of wages, profits, taxes, depreciation reserves, and so forth. But, and this is the crucial point, these two statements are not equivalent to saying that 200 billion dollars worth of goods and services will be sold and 200 billion worth of income will be received.

The thesis that production always creates its own market is erroneous because income, once received, may or may not be returned to the expenditure stream. The mere fact that 200 billion dollars of income are received gives no assurance that expenditures of 200 billion will be made.

This may be readily explained, and to simplify matters, public expenditures and taxes will be disregarded at this point. Income, when received by individuals or families, is largely returned to the expenditure stream through consumption outlays but some part is saved. Also a part of corporation profits are normally not distributed to individuals but are retained as business savings. Unless these current savings are matched by an equivalent total of nonconsumption expenditures, such

as outlays on construction, equipment, and other investment items, it is evident that total expenditures will fall short of income received. It matters little in this respect whether the investment outlays are made directly by individuals or corporations who do the saving or indirectly by others to whom savings are made available through security purchase or other channels. Similarly, it matters little whether the investment outlays are actually paid for out of dollars currently saved or are financed out of existing cash reserves or new bank credit. What counts is whether, on the whole, there is a balance between (1) income not spent on consumption but saved and (2) expenditures for nonconsumption goods. If (2) is in excess of (1), total expenditures will exceed income received. Markets will increase and a rise in prices and/or in employment will result. If (1) is in excess of (2), total expenditures will fall short of income received. Total demand will fall off and markets become insufficient to sustain the income level. Production will decline until, at a lower level of income and employment, total outlays on consumption and investment will again be sufficient to return the entire income to the expenditure stream.[1]

The cause of such a decline may be temporary only, and sooner or later private investment may increase, setting in motion a cumulative upward movement, until conditions develop which in turn may result in a renewed decline. There are many factors in the economy which may induce such cyclical fluctuations. Apart from these short fluctuations, however, general economic conditions may also be such that for substantial periods output and employment remain at or fluctuate around low levels, where a substantial portion of labor and equipment is unused.

In the absence of stabilizing policies, major cyclical fluctuations will no doubt continue in postwar years. Certain factors, such as the increased importance of consumer durables, the demand for which is apt to accrue in spurts, may well add to cyclical instability. But besides cyclical fluctuations, there may also be the problem of a more continuous condition of unemployment. The dollar amount of savings at a full em-

[1] Theoretically, of course, a lower level of expenditures can be sufficient to provide a high level of employment if only the level of prices is sufficiently lower. Also, it is evident that there is no merit in having a high level of prices as such. But under conditions of threatening or actual unemployment, a sharp decline in the general level of prices (as distinct from adjustments in selected price and cost factors) is more likely to be harmful than corrective. It may involve structural changes which may improve the profitability of specific lines of production, but more important, it implies a general and easily cumulative shrinkage in expenditures and markets. To absorb (or prevent) substantial unemployment, increasing (or maintaining) the general level of money demand is far more effective than a decline in the general level of prices.

ployment level of postwar income will undoubtedly be much above past peacetime levels. That is to say, unprecedentedly high levels of saving outlets will be required to provide full employment. There is little doubt that some sources of demand for savings, such as railroad or public utility construction, which have been of great importance in the past will figure less heavily in the postwar period. The potential demand for capital which may spring from new products, from technical innovations which increase the rate of obsolescence, or from the development of backward countries and higher living standards can hardly be estimated in advance. It may prove sufficient to absorb the potential supply of savings, but certainly this cannot be assumed in making postwar policy. To assure a high level of resource utilization and with it the benefits of rising living standards, we must be prepared for the possibility that at high levels of income private demand for savings will fall short of the supply. If so, the level of total expenditures required for full employment cannot be achieved unless public policy undertakes to restore the necessary balance.

Role of Fiscal Policy. The vital importance of fiscal policy for avoiding deflation or inflation will now be apparent. Depending on what revenue and expenditure measures are adopted, fiscal policy may be used to curtail or increase the total demand for goods and services, whichever is needed. This may be done directly by changing the level of public expenditures, or indirectly by affecting the level of private spending. A shift from taxation to borrowing, for instance, will tend to increase private spending and vice versa. Postwar fiscal policies therefore will have to differ vastly depending on whether economic pressures are inflationary or deflationary.

The prospects for postwar levels of national income are examined in detail in another paper in this series and a brief statement of position must suffice here.[2] The target for the economy's peacetime output has been raised greatly as the result of the wartime experience. During the more immediate post-transition period an output of 170 to 180 billion dollars might be needed for full employment and 200 billion or so would be a likely figure for 1950, both amounts being measured in 1944 prices and based on a 40-hour work week. For the immediate transition and early post-transition years there is a good chance that the target will be reached, although the cutback in Government expenditures will be an

[2] For a discussion of postwar income estimates, see Output and Demand after the War, by Everett E. Hagen, in *Jobs, Production, and Living Standards*, the first pamphlet in this series.

unprecedented deflationary factor. Notwithstanding this, backlog demands for consumer durables, residential construction, and business plant and equipment, together with large exports, may well keep the economy going at a high level, while at the same time a balanced Federal budget is approached. As long as general inflationary pressures continue, high levels of taxation, retrenchment in public expenditures and, if possible, debt redemption will be required. But whatever the situation for the more immediate transition years during which abnormality of conditions defies prediction, it is unlikely that general inflationary pressures will be the rule thereafter.

A full employment product of about 200 billion dollars at 1944 prices is over 50 per cent above the country's 1940 output, after adjusting for differences in prices. Hence, to achieve the 200 billion dollar product, consumers, businesses, and Government on the average must purchase one and one-half times as much in goods and services as in 1940. If they do not, that is, if the general level of expenditures is deficient, it will be impossible to sustain a full employment income. Reduced production and unemployment will follow. Assuming (1) private consumption expenditures at levels indicated by past relationships between consumption and disposable consumer income and (2) balanced Federal, State and local budget totals of about 35 billion dollars, the volume of private investment required to sustain a full employment income in 1950 may be estimated at well above 30 billion. This is a large amount indeed, particularly after backlog demands for construction and replacement have run their course. Nor will it be sufficient that this level of investment should be maintained thereafter. While the economy's capacity to produce increases, an ever expanding volume of private investment will be required to assure full employment, unless increasing outlets for savings are provided by Government or the rate of savings is reduced. Any initial deficiency in the required volume of investment, moreover, is bound to result in a cumulative deficiency in the level of income several times as large, since a drop in the earnings of the construction or machine-tool worker will in turn mean less income for the merchant with whom he deals, and so forth. Thus, if investment expenditures should fall short of the required amount by, say 10 billion dollars, the level of income might well fall short of capacity by 30 billion or more, and substantial unemployment would result.

If this appraisal should prove correct, we may expect the application of fiscal policy in the post-transition period to be concerned mainly with

fighting deflation and unemployment rather than inflation. For this reason and because the economics of depression finance are more controversial than those of inflation control, *the remaining discussion will deal mostly with the role of fiscal policy in preventing deflation.* If inflationary pressures should continue after the transition, a parallel argument may readily be developed for inflation control. Since the Federal budget in the postwar economy promises to be substantially above State and local budgets and since Federal finances may be adapted more readily to the purposes of fiscal policy, this discussion is primarily in terms of Federal finances.[3]

ALTERNATIVE BUDGETS FOR FULL EMPLOYMENT

We now turn to consider the policies by which public finances may serve to raise the over-all level of expenditures and employment in the economy. Let us assume a situation of substantial unemployment and examine what budget adjustments may be undertaken which will raise the level of total expenditures—public or private, for consumption or investment—until the level of demand is sufficient to provide for an adequate number of jobs. Specifically, three approaches will be considered:

(1) Adjusting the public expenditure and tax structures, with no change in the levels of total public expenditure and total tax yield.

(2) Incurring a deficit, either by raising public expenditures or lowering tax yields.

(3) Increasing the levels of public expenditure and tax yield by equal amounts.

While for purposes of policy the various approaches in no way exclude each other but should be combined, their respective merits may best be appraised by considering them as alternatives.

Adjusting Revenue and Expenditure Structures. If adjustments need be made, it will be well to consider first whether an increased flow of private expenditures may not be released through improving the prevailing tax and expenditure structures. Unfortunately there are fairly narrow limits to such adjustments, particularly if the fiscal structure is already reasonably sound.

The flow of private expenditures will be increased if tax pressures upon consumption and deterring effects upon investment are reduced. The pressure on consumption might be reduced substantially if the initial situation is one where a large portion of the tax yield is drawn from consumption and pay-roll taxes. These are taxes which are borne mostly by low-income families who consume a high portion of their incomes and

[3] For a discussion of State and local finances, see pp. 101-30 of this pamphlet.

whose tax payments therefore are largely reflected in reduced expenditures for consumption. To the extent that the tax burden can be shifted to others, such as high-income families who spend a smaller share of their income and save more, the pressure of taxes on consumption is lessened. However, if at the outset a substantial part of the Federal tax yield comes from progressive personal income taxes while excise and pay-roll taxes already occupy a minor position, no great reliance can be placed upon further shifts in the tax structure. Moreover, the very adjustments which will release consumption by rendering the tax system more progressive will also tend to deter investment expenditures by making investment appear less attractive. If the tax bill is sizeable in relation to national income, it is hardly avoidable that a substantial part of the yield will have the effect of depressing private spending.

The situation is similar on the expenditure side of the budget. No great reliance can be placed on raising the level of spending through changes in the composition of a given total of public expenditures unless the budget is very large. Different expenditure items, to be sure, will differ substantially in their effects upon private consumption and investment outlays. But within the framework of an established budget pattern, there is relatively little leeway for reshuffling expenditure items from this point of view. After contractual obligations and indispensable expenditures for basic governmental functions are excluded, only a relatively narrow range remains in which adjustments can be made. Moreover, the intrinsic merit of expenditure items is the first criterion of choice, not their effect on employment.

This of course is not to conclude that improvements in the revenue and expenditure structure are unimportant to our problem or that much harm may not be done by a defective policy. However, once a reasonably well-adjusted system of Federal revenues and expenditures has been worked out, further *reliance upon raising the total expenditure flow through mere re-allocation of public revenue and expenditure items cannot be extensive.*

Deficit: Higher Expenditures vs. Lower Taxes. If the budget adjustment is to provide for a substantial increase in total expenditures in the economy, an increase in the public expenditure level and/or a reduction in tax yield will be required. A deficit will have to be incurred in either case, that is, part of the budget will have to be financed by borrowing rather than taxation. But this may be accomplished in different ways. Public expenditures may be increased; tax yields (and rates) may be

reduced, or both may be done at the same time.[4] The relative effectiveness of the two approaches may be examined by comparing the increase in the demand for goods and services, and hence in employment, which results if the same amount of deficit is incurred by raising public expenditures or by lowering tax yields. To simplify matters, we shall assume that the loan funds by which the deficit is met are obtained from bank credit or in some other way which will not reduce expenditures on the part of bondholders.

The total increase in demand for goods and services brought about by a budget adjustment may be divided into the *initial* increase in demand and *subsequent* increases. If the Government undertakes additional construction expenditures, there is an initial increase in demand for construction. If higher pensions are paid or taxes are lowered, income available to pensioners or taxpayers is raised and some initial increase in their consumption expenditures will result. In either case, this initial increase in expenditures on goods and services will be followed by subsequent respending. The construction worker who sold additional services to the Government; the grocer who sold additional food to the pensioner; the tailor who sold an extra suit to the taxpayer—all will respend part of their additional income and so will those whose incomes are increased in turn, etc. As far as consumption expenditures are concerned, total respending will be the greater, the lower the rate of savings of the income recipients. Because of this chain of respending, the total increase in demand brought about by a budget adjustment will tend to be a multiple of the initial increase; an initial addition to demand of 1 billion dollars, for instance, may raise total expenditures on goods and services by 2 or 3 billion. In the absence of special considerations the multiplying effects are likely to be about the same, whether the initial increase in demand is for the services of the construction worker or for additional groceries. Therefore, to facilitate the comparison between various budget adjustments, we may assume these subsequent effects to be the same for any given initial increase in demand, wherever it occurs. The effectiveness of

[4] If public expenditures are increased while taxes are kept the same, this may imply either that tax *yields* or tax *rates* are held constant. When as the result of increased public expenditures the level of total expenditures and income in the economy is raised, given tax rates will yield larger amounts. Hence, if tax yields are to remain constant while public expenditures are raised, tax rates must actually be reduced. The discussion above compares variations in either public expenditure or yield levels and thus implies such rate adjustments. This simplifies our analysis, even though it might be more realistic for the case of the expenditure increase to assume that *rates* remain constant and to allow for the offsetting factor of an automatic *yield* increase on the resulting addition to private spending.

various adjustments may then be rated in terms of the resulting initial increase in demand.[5]

As it is helpful to consider the problem by stages, we shall first assume that private investment will be unaffected and allow for investment effects later on.

As far as employment is concerned, it will make no difference whether the additional demand and expenditure for goods and services takes the form of public or private purchases if the magnitudes are the same. However, the amounts of the initial increase may differ in accordance with the approach taken. To anticipate the conclusion, there is a presumption that the initial increase in demand will be greater if public expenditures are raised than if tax yields are cut by a similar amount.

This is fairly evident in those cases where the increase in total expenditures results from a Government deficit incurred to provide items such as education or highway construction. The full amount of the public expenditure or deficit then constitutes a direct addition to the demand for goods and services. If, by comparison, the deficit results from cutting tax yields by a similar amount, the initial increase in the demand for goods and services which results may well fall short of the loss in yield or deficit. If tax payments are reduced, private income available for spending is increased, but private expenditures may rise by only a fraction of the tax reduction. The fraction of tax savings spent by private individuals will tend to be the greater, the lower the taxpayer's income bracket since, on the whole, low-income families tend to consume a larger portion of their income than do those in the upper income brackets. At the most, the resulting increase in consumption may equal the tax reduction and thus match the alternative increase which might have been obtained by Government expenditures. More likely, however, consumption will increase by only a fraction of the tax reduction.

The matter is less evident where the increase in public expenditures does not initially provide for an addition to public demand but, as in the case of relief or pension payments, merely adds to the purchasing power of private income recipients. There is no difference in principle between

[5] In technical terms, our approach is to compare the multiplicants which result if public expenditures are increased or tax yields are lowered while the multiplier is assumed the same for both cases. The multiplicant (that is, the "initial" increase in demand) is defined to include the total increase in real public expenditures and such fraction of transfer expenditures or reduction in tax yield as are reflected in increased private consumption outlays. For a more detailed discussion of the problem, see the author's note on "Alternative Budgets for Full Employment" in the *American Economic Review* for June 1945, p. 387.

incurring a deficit for raising public expenditures of this kind or for reducing tax yield. In either case, the outcome depends upon the extent to which the resulting increase in available private income is reflected in increased private spending. The results will depend for any specific case upon *who* receives the public payments and *who* finds his tax reduced. If the additional expenditures are for relief or social security and thus go to low-income families, the initial increase in private consumption will undoubtedly be greater than if the outlays are for redemption of public debt held by banks or high-income families. Similarly, if the tax reductions come in the excise, pay roll, or first bracket income tax field, consumption will increase more than if estate tax or top income tax rates are cut. As a general rule, however, additional public expenditures may be directed to those who are most in need of funds and whose rate of respending will be relatively high, while tax reductions necessarily accrue to those who have sufficient income to pay taxes and whose average rate of respending will therefore tend to be lower. It again appears that the initial increase in consumption outlays will tend to be greater if public expenditures are increased than if taxes are reduced. This is especially true if the tax reduction is spread over the entire range of taxpayers, as may well be the case if the change is large.

To sum up: Comparing (1) a given cut in tax yield with a similar increase in the public demand for goods and services, it is evident that the initial increase in private consumption demand out of tax savings may at best measure up to the increase in public demand for goods and services. More likely, however, it will fall substantially short of the full amount. Comparing (2) a given cut in tax yield with a similar increase in public expenditures which involve no addition to public demand, there is again a presumption in favor of the expenditure increase, since the additional amount paid out by Government will tend to accrue to people who are apt to respend a larger fraction on consumption than are those who benefit from tax reduction.

These conclusions may be modified, however, by resulting changes in private *investment*, which have been disregarded so far. Increased public expenditures, such as developmental programs, may have direct investment-inducing effects. They do not interfere with private markets, but may expand and develop them. Tax reduction will have an advantage if investors are hostile to an expansion of Government expenditures as such or if public investment threatens to replace private ventures. Also, an increase in investment yields due to reductions in tax rates may provide

for a higher volume of investment, particularly if the initial rate level is high and the definition of taxable income unsatisfactory. However, it must be noted that tax reductions cannot readily be designed to favor an increase in both consumption and investment. Just as taxes which fall most heavily on consumption will tend to depress investment yields least, so tax relief which is most helpful to consumption is of least direct benefit to investment.

Combining these considerations, it is unlikely, within the limits of reasonably moderate budget adjustments, that the previously noted advantages of a public expenditure increase will be canceled or reversed by the possibly superior investment effects of tax reduction. On balance we may expect that a given increase in public expenditures will usually cause a greater increase in demand than will a similar reduction in tax yield. Hence, the dollar reduction of tax yield required to raise total expenditures in the economy by a given amount will tend to be greater than the required dollar increase in public expenditures; similarly, the resulting deficit will tend to be greater under the first approach. *If the budget is to provide for a given increase in total (public plus private) expenditures, there is a choice between a somewhat smaller addition to the public debt together with a higher level of public expenditures and a somewhat larger addition to the public debt together with a lower level of public expenditures.*

Balanced Budget: Higher Expenditures and Higher Tax Yield. As a final approach one might consider raising both public expenditures and taxes by equal amounts. While intriguing at first sight, this approach has little promise. When public expenditures are increased and tax yields are raised by the same amount, income available for private spending is initially unchanged: What is added to disposable income on the expenditure side is taken away on the tax side. This does not exclude the possibility that, as a result of income redistribution, private consumption expenditures may be increased. But at best this increase will fall much short of the gain in private consumption outlays which might have resulted had the same increase in public expenditures been introduced without raising taxes.[6] Multiplying effects will thus be absent or much smaller. Hence, to obtain the same increase in total expenditures, a much

[6] In discussing the effects of a deficit, we assumed that public borrowing does not affect the volume of spending on the bondholders' part. In a generally deflationary setting and given appropriate borrowing policies, this is a fair assumption, even though at other times, as during the war, debt policy may be used to reduce consumer spending.

larger addition to public outlays is required if tax yields are increased as well.

Apart from consumption effects, the level of total demand will again be raised by direct additions to public demand, provided for in the expenditure increase, and again changes in private investment may result.[7] If the initial deficiency in total spending is large so that a sharp increase in public expenditures and taxes is required, private investment may well react unfavorably. Beyond a certain point of budget expansion, it is likely to fall rather than rise, which will further reduce the total leverage effect. It is quite possible, in fact, that the required increase in public expenditures and tax yield would have to match the full deficiency in the level of total expenditures, or might even exceed it. Without increased tax yield, on the other hand, an increase in public expenditures by a fraction of the deficiency only might suffice. Given a substantial deficiency, the balanced expenditure and tax yield increase, if feasible at all, may well require a budget so large as to be of little practical interest.[8]

[7] If private expenditures on both consumption and investment are unaffected while public expenditures on goods and services increase, an increase in the quantity of money or income velocity is indicated.

[8] Numerical illustration of the preceding discussion is given in the following table:

Budget and product components	Initial condition (A)	After alternative budget adjustments (1)	(2)	(3)	(4)
I. The Federal Budget (in billions of dollars)					
Expenditures on goods and services	17	17	21	22	34
Expenditures on transfer	3	3	5	7	8
Total	20	20	26	29	42
Tax receipts	20	12	20	25	42
Deficit	..	8	6	4	
II. The Gross National Product (in billions of dollars)					
States and localities	9	9	9	9	9
Federal Government	17	17	21	22	34
Private investment	22	25	24	24	22
Private consumption	112	134	131	130	120
Total, gross national product	160	185	185	185	185

The magnitudes in column (A) show the initial budget situation (Part I) and the initial gross national product (Part II). It is assumed that the initial gross national product of 160 billion dollars is to be raised to 185 billion. Columns (1) to (4) of Part I show adjusted budgets which will bring about this 25 billion dollar increase in the total level of expenditures, the resulting gross national product patterns being shown in columns (1) to (4) of Part II.

(*Continued at bottom of p. 14.*)

SHORT AND LONG-RUN BUDGET PLANNING

The question remains to what extent a relatively high level of expenditures and taxes resulting in a more moderate deficit should be preferred to a lower level of expenditures and taxes resulting in a somewhat larger deficit. The answer in part depends upon the implications of a rising public debt. These are discussed in later papers and may be omitted here. Next and more basically, the answer depends upon how much of its resources the community wishes to devote to public purposes and what transfers of disposable income it wishes to undertake through expenditures of the social security or pension type.

Basis for Planning Public Expenditures. There is nothing in the nature of fiscal policy and compensatory adjustments which requires public expenditures that are not warranted on their own merits. If budget adjustments are needed to raise the level of total expenditures, public expenditures may be increased if additional public services are desired; this may take the form of public investment outlays such as public construction or, depending on social needs, the additional expenditures may well be for school luncheons or education.[9] If the existing level of public expenditures is considered adequate, taxes can be reduced, even though private expenditures might not rise commensurately. Public expenditure planning with regard to both the level and composition of expenditures should be guided as much as possible by considerations of efficient resource allocation. Employment effects of various expenditure items are important but, apart from questions of timing which are discussed later, they should not be the basic criterion of choice. There are large areas of public services such as resource development, public health, education, and housing which have been badly neglected and rate a high priority in the nation's

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[8] *Continued from p. 13:*

The gross national product changes in Part II are derived from the budget changes in Part I on the basis of these assumptions: (a) The initial increase in private consumption expenditures equals 90 per cent of an addition to public transfer expenditures, 75 per cent of an addition to public expenditures on goods and services, and 70 per cent of an addition to private investment expenditures, (b) the initial decrease (increase) in private consumption expenditures equals two-thirds of an addition (reduction) in tax yield; (c) the total increase in private consumption expenditures equals three times the initial increase, the multiplier of 3 being based on income after tax but not exclusively determined by the individuals' propensity to consume out of disposable income since allowance must also be made for such leakages as corporate savings; and (d) private investment is assumed to increase moderately under adjustment (2) and (3), somewhat more under adjustment (1), and is held constant under adjustment (4).

These assumptions involve judgment rather than precise information and the reader will wish to substitute his own coefficients, which may yield different results. This will apply particularly with respect to the investment assumption in column (4), which may well be over-optimistic.

[9] *Private* offsets to saving (*i. e.*, to income not spent on consumption) must by definition be in the form of investment expenditures. *Public* offsets may be public expenditures of any kind, whether for current consumption or for investment projects.

needs. They will stand on their own merits; other projects of a make-work kind do not. The argument here is not for or against any particular expenditure level, but merely relates to the considerations upon which expenditure planning should be based.

The implications for purposes of short and long-run budget planning may be considered briefly. Ideally, budget adjustments should be made continuously, to meet current changes in economic conditions. Yet, long-run budget planning is necessary because many phases of budget policy are rigid and cannot be adjusted currently, some not within a year and others not even over a period of several years.

Long-Run Budget Planning. As a matter of long-run budget planning, the problem is one of devising a budget which for the period ahead (be it a year or five years) will fit "most requirements most of the time," that is, which will meet the needs of the "average" situation. For efficient budget planning this means that the first step should be to plan public expenditures on the basis of need, and of economy and efficiency in the public use of resources. After the expenditure side of the budget has been thus planned for the period ahead, the question of the level of tax yield must be examined. If short-run adjustments in tax yield were readily feasible, there would be no problem of longer run tax planning, but this is not the case. As shown in the following paper, a good tax structure will differ considerably for different yield levels. Because of this and the difficulties of adjustment, it is important that the tax structure be fitted to the yield requirements of the "average" situation. For any given level of public expenditure, yield requirements should be relatively high if there is reason to expect that the "average" situation will be on the inflationary side; they should be relatively low if there is reason to think that the "average" situation will tend to be deflationary. More precisely, the basic tax structure should be set so as to provide a yield at the full employment level of income which (in view of the given public expenditure level) will leave such budget surplus or deficit as is required in the "average" situation to maintain stability and full employment. If this is accomplished, *the need for short-run adjustments will be minimized* and unnecessary and wasteful distortions in the basic expenditure program will be avoided.

Conceivably the desired level of public expenditures and the economic conditions for the "average" situation may be such that tax rates should be set to balance the budget at full employment. But this would be one possibility only. If, as is quite possible, the "average" situation and the

desired level of expenditures are such that a deficit will be needed, the basic tax structure at the outset should be set sufficiently low to provide for a deficit at full employment. The formula that the budget should be balanced at full employment would under such conditions provide neither full employment nor a balanced budget, but an arbitrary and inadequate level of deficit. The opposite of course will be the case if the outlook for the "average" situation is on the inflationary side.

In the preceding discussion of budget adjustments, no reference was made to the "pump-priming" thesis which proposes that a *temporary* budget adjustment will bring about a more *permanent* increase in the level of private investment. This result might come about if conditions already point toward an upswing in the business cycle, but it is unlikely otherwise. A high level of over-all expenditures having been attained as the result of fiscal measures, these measures need be continued if the recurrence of a slump in income is to be avoided unless, in the meantime, a sustained and independent increase in private investment or private expenditures for consumption has occurred. Without such change, a decline in public expenditures would be followed promptly by a drop in private consumption and investment outlays. Thus the long-run effectiveness of fiscal policy must not be measured in terms of successful pump-priming, but in terms of the higher level of income which can be sustained as long as a vigorous fiscal policy is continued. If conditions are such that for some period the "average" situation continues to be deflationary, a net deficit will be required for that period.

Short-Run Adjustments. Apart from adjusting the basic revenue and expenditure programs to the need of the "average" situation, a maximum of flexibility is needed to permit current adjustments to short-run fluctuations which are likely to deviate substantially from the "average." The flexibility requirement applies to both sides of the budget.

Tax adjustments in recent years have required from six to twelve months of preparation and enactment. For purposes of controlling short-run fluctuations, this is an impossibly long delay. However, the usefulness of tax adjustments as an instrument of flexible fiscal policy might be increased greatly by providing some mechanism for prompt adjustment in rates, low bracket income tax rates in particular. Under the new system of source collection, rate changes under the personal income tax could operate very promptly in contracting or expanding disposable income, whereas valuable time might be lost in mobilizing public expenditure programs. Depending upon the changes in tax rates, variations in con-

sumer expenditures by perhaps several billion dollars (in annual rates) might be effected.[10]

But even if some flexibility of tax rates was introduced, substantial reliance on expenditure flexibility would still be necessary. Feasible magnitudes of tax adjustments from an "average" postwar level may well be insufficient to cope with a sharp downswing. Specific expenditure measures, moreover, are more effective in dealing with *specific* conditions of distress and unemployment than are tax cuts, which necessarily aim at increasing the *general* level of income. A 100 million dollar work project may very directly and promptly relieve a depression situation in a specific region or occupational group, whereas a similar tax cut accruing to those who have income rather than to those who have not is bound to operate more indirectly and more slowly. This is significant in particular in the political context where the permissible size of the deficit may be subject to narrow limits, so that it is important to use such ammunition as *is* available in the most effective manner.

There should be no conflict between long-run expenditure planning based upon the community's need for public services and the timing of public expenditure projects so as to compensate for cyclical swings in private spending; the list of desirable expenditure projects contains a sufficient number of flexible items. But much depends upon advance planning. To reduce the time lag involved in the introduction of expenditure adjustments and to maximize their usefulness in the framework of long-run expenditure planning, everything should be done to build up a reserve of carefully selected projects, both by regions and time requirements, including public works, construction as well as public services. Also, provision must be made for the administrative machinery needed to put these projects into operation promptly when conditions require.[11] The legislative framework within which a flexible expenditure and tax policy may operate is now being considered by Congress in the Full Employment bill. Implemented effectively, it will equip public policy with an anti-cyclical weapon much more powerful than anything heretofore available.

FISCAL POLICY IN A BROADER PROGRAM

We have endeavored to show how full employment requires a high and stable level of expenditures and how fiscal measures may help to achieve

[10] For further discussion see p. 42.

[11] For a more detailed discussion of public expenditures, see Walter F. Stettner, "Public Works and Services", *Housing, Social Security, and Public Works*, a later pamphlet in this series.

it. Emphasis has been upon the effectiveness of the fiscal approach, but in conclusion some comments on its limitations are in order. Fiscal policy like any other single line of approach, obviously provides no panacea.

Fiscal Policy and Other Approaches. Fiscal policy is primarily an aggregative approach, operating upon the general level of expenditures and prices rather than the direction of expenditures or the structure of prices. Yet these raise policy problems of great importance which must be dealt with through more direct approaches. Public policies regarding such matters as minimum wages, economic mobility or monopolistic practices, for instance, remain vitally important whether or not fiscal policy provides for full employment.

Nor are budget adjustments the only vehicle through which total expenditures and the level of employment may be affected. Even though the fiscal approach may be the most direct or powerful, this is no reason for neglecting others which may be helpful in securing a high and stable level of private expenditures. On the contrary, the more effective these other measures, the more manageable will be the task of fiscal policy. Counter-cyclical budget adjustments will thus be less difficult if other policies succeed in reducing inventory fluctuations or spreading private construction demands. Similarly, deficits are less likely to be necessary if ways are found to raise private expenditures through the development of new markets, high wage policies, or increased economic security which may permit a lower level of private saving. But more likely than not the remaining job for fiscal policy will be substantial.

Fiscal Policy and Private Enterprise. Fiscal policy must be evaluated not only by its effectiveness in providing full employment, but also by its ability to do so within the framework of a free market economy. There are several sides to this picture.

Compensatory fiscal adjustments, it is frequently argued, will lead directly to increasing encroachment of Government upon business and the freedom of consumers' choice. Some illustrations will show that the implementation of fiscal policy is sufficiently flexible to avoid these results.

First, with respect to public versus private employment: If the Government wishes to provide a highway bridge it may do so under its own management and with its own labor force, or instead it may engage a private contractor. This choice involves issues of public policy which are quite distinct from and not dictated by the project's impact upon the general level of income and employment.

Public expenditure areas which rank highest from the point of view of

social needs, such as resource development, low-cost housing, aid to education, or health improvements are largely areas which are not readily accessible to private enterprise. Unless there is desire for public ownership, the necessary area of conflict involved in even a substantially expanded peacetime budget is small. The advantages which private enterprise might derive from expenditure programs of various kinds are substantial.

Second, with respect to public versus private spending: If the total demand for goods and services is to be raised, this may or may not be done through increasing public demand. This choice depends on the community's preference between alternative uses of resources; it is not dictated by the impact upon general economic conditions. If no increase in public expenditures on goods and services is desired, there are the alternatives of reducing taxes or increasing such budget expenditures as social security payments, which do not add to public demand. In either case, there is no interference whatever with consumers' choice. Which approach is to be preferred involves a new set of policy issues, including matters of equity in income distribution, but again, considerations of general income and employment effects are not controlling.

The way in which budget adjustments are implemented will obviously have some effect upon their impact on the general level of income and employment. The decisive point, however, is that the basic fiscal policy objective, that is, the stabilizing of income and employment at high levels, may be implemented in one way or the other. The particular approach chosen therefore can be determined by, but does not determine, other and broader policy considerations.[12]

Fiscal policy, moreover, may directly contribute toward creating the environment in which private enterprise can operate to the community's best advantage. If total markets are stabilized at high levels, the risk of investment is greatly reduced. While stability of total income does not guarantee profits in individual ventures, it does eliminate the hazard of loss caused by a *general* shrinking of markets which has come to be the

[12] This is not to deny that the merits of fiscal policy with regard to maintaining employment cannot be isolated in the political context from their merits or demerits on other grounds. Arguments for a larger budget based on the desire to provide additional public services, or arguments for increased tax progression based on the desire to reduce inequality in income distribution, may well be strengthened if the employment effects of such action are also favorable. Such fusion of issues, of course, occurs throughout all phases of public policy; it is not limited to the fiscal approach.

As far as the "politics" of fiscal policy are concerned, their potency may be expected to decline to the extent that compensatory budget adjustments come to be accepted as a normal and nonpartisan function of public policy.

major risk factor. With this factor removed, success or failure in business will depend less upon fortunes in weathering cyclical changes and more on abilities to meet the customers' approval. Once confidence in a successful public policy is established, moreover, consumers and investors will learn to adjust their expenditure plans to the prospect of large and stable markets. From this a higher and more stable flow of private expenditures will result which in turn will reduce the need for fiscal support.

Nevertheless, the question remains whether in some other respects the fiscal approach is not likely to involve an increasing degree of Government control. A large budget may be thought directly to entail increased power of Government. A high level of public debt or liquidity incident to it may be expected indirectly to call for further intervention. These considerations cannot be dismissed lightly even though they appear less serious once we recognize that the magnitudes involved must be considered not in absolute terms, but relative to total income. If by 1950 total money income is well above twice that of the late thirties, it is evident, for instance, that the dollar amounts of budget expenditures, interest payments, or money supply may also be substantially above prewar levels without calling forth additional difficulties.

The implications of public debt and liquidity are considered later in this pamphlet.[13] The magnitude of postwar problems along these lines will have been determined, to a large extent, by war financing rather than by postwar changes. As far as possible postwar additions to the debt or to liquid assets are concerned, it is unlikely that the ratio of debt, interest service, or money supply to total income will rise substantially even though for a decade or two some deficits on the average should continue. This assumes, however, that a fairly high level of employment will be maintained, and with it, a rising level of income. Without these the burden of the war debt may indeed become oppressive. On the whole there is more reason to be concerned about the effects of debt accumulation upon the adequacy of control in a future boom period when wartime restrictions have been withdrawn, particularly if no mechanism for prompt fiscal adjustment has been provided.

While these implications may cause concern, they cannot be appraised without considering the alternatives which may well be less attractive. Without vigorous public policies and a clear recognition of public responsibility, severe cyclical swings will undoubtedly reoccur in the post-

[13] See the papers by Evsey D. Domar, Roland I. Robinson, and Henry C. Wallich, pp. 53-100.

war years, and quite possibly there will again be long periods of heavy unemployment. If permitted to reoccur, the chances are that these would lead to violent reactions and most extensive public controls. The true issue, therefore, is not whether we should choose or reject some Government participation in economic life, but whether we should select and implement those policies which qualify best to check instability and unemployment while maintaining a free market economy. Fiscal policy rates high in such a program.

FEDERAL TAX REFORM

by

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Revenue legislation during the next few years offers a unique opportunity for Federal tax reform. Yield requirements will drop sharply in the shift from war to peace and sweeping changes in economic conditions will call for a reorientation of policies. Public interest in tax legislation will be lively and sympathetic, as the change at last will be for less, not more, taxes. In this setting one may hope that haphazard rate cuts will be avoided, and the basic structure of Federal taxation be reconsidered.

This discussion is focused on a few major aspects of Federal tax reform; many details will be omitted. First, we shall consider the basic economic issue, namely how to minimize the deflationary effects of taxation upon private spending. This will be followed by a discussion of flexibility in tax policy. Next, we shall examine the place of the corporation income tax and its coordination with the personal income tax. In a final section the outlines of a revenue program will be presented. Questions of equity in taxation, while most important factors in tax policy, have been discussed widely elsewhere and are here dealt with by inference only.

ECONOMIC REQUIREMENTS FOR TAX POLICY

In the preceding essay we have seen how public expenditure and revenue policies combine in shaping the Federal budget's contribution to income and employment. Now, the level of public expenditures is taken as given and the tax aspects of budget policy are singled out for closer consideration.

Revenue Structure and Size of Deficit. Federal expenditures for the average postwar year are estimated to be in the neighborhood of 28 billion dollars; that is, total receipts of 28 billion will have to be ob-

tained.[1] Tax policy then raises two major issues: how much of the 28 billion shall be obtained through taxes and what tax sources shall be relied upon? The questions are closely related.

Tax and loan finance differ because borrowing gives rise to public debt, whereas taxation does not. They also differ in their current impact upon the level of private demand. With the help of monetary policies, loan finance may be arranged to have little or no deterring effects upon the creditor's outlays, but taxes for the major part do result in reduced private expenditures. The budget's contribution to total demand, therefore, will be greater if public expenditures are financed from borrowing than from taxes. Depending upon economic needs, one or the other combination of tax and loan finance will be called for. If the level of private expenditures is high and conditions are on the inflationary side, the entire 28 billion dollars may well be raised from taxes and in boom periods an even higher level of tax yield with accompanying debt redemption may be called for. If private expenditures are low and the setting deflationary, it may not be possible to meet all requirements from taxation. Some deficit may be needed to assure an adequate level of total demand.

The choice, however, is not only between taxation and borrowing, but also among different taxes. While most taxes tend to curtail private spending, some do so more than others. This is why the revenue structure and the size of the deficit (or surplus) are closely related. A simple illustration will bring out the point. Suppose that a full employment level of demand cannot be maintained unless one-half of the 28 billion dollar budget is financed from funds which do not curtail private spending. If highly deflationary taxes are used which are matched dollar for dollar by reduced private outlays, one-half of the funds or 14 billion dollars will have to be obtained from borrowing. If less deflationary taxes are used, reducing private demand by two-thirds only, 21 billion dollars can be

[1] While effective fiscal policy requires that expenditure and revenue policies be determined in conjunction, a concrete discussion of the problem must begin with one or the other item. As explained on page 15 above, the expenditure side of the budget provides the logical starting point.

The 28 billion dollar budget here assumed does not reflect a proposed expenditure program but is an appraisal of likely levels. It might include 5 billion dollars of interest on public debt; 1.5 billion for non-military operations of Government; 7 billion for military establishments; 3 billion for veterans and pension payments; 1 billion for publicly financed foreign investment; 2.5 billion for aid to agriculture; 1 billion for aid to education; 2 billion for public works and developmental projects, and 5 billion for an expanded social security program. Note that social security expenditures are included in the budget total. Similarly, taxes raised to finance the social security program are considered an integral part of the tax structure.

obtained through taxation, and borrowing be limited to 7 billion. In short, *the less deflationary the tax structure, the smaller will be the deficit which is required to provide an adequate level of total demand.* In periods of high prosperity, similarly, the permissible budget surplus and debt redemption will be the greater, the less deflationary the taxes used.

This relationship holds under conditions of prosperity or depression but it is significant particularly in a deflationary setting, where the choice is between better (less deflationary) taxes and a larger deficit. More likely than not, this will be the situation when pent-up war demands have tapered off. A tax structure with a minimum of deflationary effects will then be needed because it will permit the maintenance of full employment with a minimum increase in the public debt. Even though the dangers of an increasing public debt are usually exaggerated, its economic implications are not a matter of indifference and public attitudes are such that fiscal policies for full employment will be more acceptable if the required debt increase is minimized.[2] Our discussion thus rests on the assumption that it will be desirable on the whole to minimize the public debt to the extent that this is possible within the frame-work of a full employment policy. If alternatively it was assumed that the level of public debt was a matter of no relevance, most of the problems here considered would disappear. Tax policy then could be determined purely on grounds of social policy, equity, and effects upon the allocation of resources, *e. g.*, the control of monopoly. As far as the total levels of expenditures and employment in the economy are concerned, tax policy would enter the picture only with respect to determining the correct level of *total* yield. However, so sweeping a disregard of the debt problem is not justified.

The basic economic requirement for the postwar tax structure is therefore evident: *Taxes should be relied upon which depress private expenditures least.* In the following pages we shall see how this principle applies to consumption and investment outlays. A second principle, that the revenue structure should be sufficiently flexible to meet changing conditions, will be considered later.

Level of Yield. Before proceeding with this discussion, a word need be said about the yield objective which we have in mind. Issues which might be simple if the revenue goal were set at 10 billion dollars, might become most complex with a goal of 20 or 30 billion. Similarly, issues which might be simple if 20 billion dollars were to be obtained with a gross

[2] For a discussion of debt problems, see pp. 53–100 of this pamphlet.

national product of 180 billion, might be most complex if the same amount had to be drawn from a product of 140 billion.

The higher the yield objective, relative to the level of national income, the more difficult does it become to rely on good revenue sources only. The deflationary pressure of the average tax dollar, as we shall see, is likely to be the greater the higher the revenue goal. This leads us into a dilemma. We wish to set a high revenue objective so that the deficit will be small, yet, to have full employment, a high revenue goal will be permissible only if the deflationary pressure of the average tax dollar remains low. As this condition becomes increasingly difficult to attain the more we collect, the possibilities of reducing the deficit by improving the revenue structure are limited. The solution, in principle, is to devise the best possible revenue structure for a range of yields and then to choose that yield which will leave the economy with an adequate level of total demand.

Setting the yield objective thus requires a general appraisal of the economic outlook as well as an estimation of the kind of revenue structure which will be possible. Because the difficulties of tax policy are more apparent if a high revenue goal is chosen, it may be well for our purposes to assume a yield objective of 25 billion dollars, to be obtained at a level of output close to full employment as measured by a gross national product of 185 billion dollars, or a national income of about 155 billion.[3] With an average expenditure budget of 28 billion dollars, a deficit of 3 billion would thus result at such a level of output. Whether this will be sufficient or excessive remains to be seen; quite possibly the combination will prove on the optimistic side.

MINIMIZING TAX DETERRENTS TO CONSUMPTION

Taxes in the last resort may be paid out of funds which might otherwise have been used for consumption expenditures or out of individual or business savings. To the extent that they are paid out of savings, no direct reduction in consumption expenditures will result. What taxes are most likely to meet this requirement?

Taxes from Personal Income. The most effective way of checking tax pressures on consumption would be through a tax on income saved, that is, not spent on consumption, with income spent on consumption being left tax free. This approach will be considered later.

[3] The levels here assumed approximately correspond to column (3) of the table shown in ootnote 8 on p. 13 above.

As far as the more traditional tax devices are concerned, such as personal income, estate, pay-roll or excise taxes, the general rule applies that tax pressures on consumption will be the less, the more largely the taxes are paid by the higher income groups, that is, the more progressive the burden distribution. Taxpayers with larger incomes tend to save proportionately more than do those in the lower income brackets. If taxes are drawn from higher incomes, a larger fraction of the tax dollar will thus tend to be reflected in reduced savings, and consumption will be affected less. It follows that estate or progressive income taxes which are paid more largely by the higher income groups are superior in this respect to a severe personal income tax rate on incomes in the bottom bracket, a pay-roll tax on low wage incomes, or to excises on mass consumption goods.

The general tendency for progressive taxes to fall less heavily on consumption is clear cut; but the amount by which taxes may actually be prevented from curtailing consumption is easily over-estimated. Suppose that pay-roll taxes or excises on mass consumption goods, which bear most heavily upon consumption, are repealed, and that the personal income tax is relied upon. Even then our problem is far from simple. The bulk of individual incomes, normally 80 per cent or more, flows into consumption expenditures. If 140 billion dollars of money income is received by individuals, for instance, consumer expenditures in the absence of taxes might amount to 120 billion, leaving savings of 20 billion. These 20 billion dollars could furnish a substantial source of tax yield if tapped directly, but conventional tax techniques do not permit this. If the required yield is small, say 5 billion dollars, it might be possible nevertheless to draw mostly on the savings sector, by taxing the high-income groups. Since these groups save a large part of their incomes, taxes they pay will come predominantly from savings. If the required yield is large, however, say, 20 or 25 billion dollars, it will be necessary to extend taxation into the middle and middle to lower income groups, where consumption expenditures absorb a larger share of income.

This is necessary because the largest part of total income goes to families in the lower and middle income groups, which include the bulk of the total population, even though a very small fraction of income recipients who constitute the top group receive a disproportionately large fraction of total income. Considering a possible postwar income distribution, we may find, for instance, that nine-tenths of all families fall into the income group below $5,000 and that this group receives about two-

thirds of total income. Also, we may find that one half or more of all families fall below the $3,000 level, with about three-tenths of total income going to this group. While these income shares may be small relative to the number of families they support, they are large relative to total income. Given such an income distribution, we find that out of a possible total of 50 billion dollars of net income subject to surtax, not more than 10 billion dollars would fall in surtax brackets above $5,000. The bulk of income taxable under the personal income tax falls into the lower brackets.[4] While the problem of progression is thought of mostly with reference to the taxation of "high" as against "low" incomes, the amounts of taxable income and of yield involved are more important with respect to the distribution of tax burdens between, say, those below $3,000 and those in the $3,000 to $5,000 range.

But even where there is a choice between the taxation of high and low incomes, there is a second reason why progression is less effective in reducing the consumption impact of taxes than is frequently thought. The difference in the *average* fraction of total income saved by high and low income families is substantial indeed, but it is not the factor upon which the differential consumption impact of more or less progressive taxes depends. What counts, rather, is the difference in the *marginal* rates of saving, applicable to the two groups. A person with an income of $100,000 may save $50,000 or 50 per cent of his total income. Yet, if he pays an additional $100 in taxes, his savings may decline by $70, or 70 per cent of the tax payment. Similarly, a person in the $3,000 group may save 10 per cent of his total income, but if an additional tax of $100 is paid, his savings may fall off by $40, or by 40 per cent of the tax. What counts in determining the impact of a tax upon savings or consumption are the marginal rates of saving of 70 and 40 per cent, not the average rates of 50 and 10 per cent. From available information it appears that the differences between the marginal savings rates of high and low income groups tend to be less than those between their average rates. Hence, the difference in the savings impact of more or less progressive taxes is less than may be surmised from a comparison of average savings rates.

[4] Reference is made to a level of income payments of about 150 billion dollars. If the income level were higher, the bracket limits would be raised accordingly, but the general distribution picture would not be greatly changed.

With income payments of 150 billion dollars and current surtax exemptions, the total tax basis (*i.e.* surtax net income after exemptions and deductions) might equal about 50 billion; of this, about 10 billion might be subject to surtax rates applicable to brackets in excess of $5,000.

If the tax yield required is large relative to total income, it is more or less inevitable, for these reasons, that a substantial fraction and, in fact, the larger part of the tax burden will be reflected in reduced consumption outlays. With a 25 billion dollar yield, it is difficult to see—even with extensive reliance upon the personal income tax—how the fraction of total yield falling upon consumption could be reduced much below two-thirds. Data upon which such estimates can be based are rather inadequate, yet quantitative analysis suggests that no major reduction in tax pressures on consumption can be achieved by pushing the degree of progression within feasible limits, once excise, pay roll, or other high consumption taxes have been eliminated and a reasonable degree of progression in income taxation has been obtained. This, of course, does not render it unimportant to utilize progression for curtailing tax pressures on consumption; nor does it weaken the proposition that progression is desirable on equity grounds. It appears, however, that increased progression cannot be expected materially to alleviate the deflationary effects of taxation should a substantially increased level of consumer expenditures be required.

Taxes from Business Income. The problems posed by the corporation income tax differ, depending upon its incidence. To the extent that the tax is shifted into higher prices or lower wages, it is equivalent to an excise or pay-roll tax. Its consumption impact, like that of excise or pay-roll taxes, will be most severe. To the extent that the tax is reflected in lowered dividends, the problems are similar to those of the personal income tax. Much will depend upon the way in which the dividend loss is distributed among different income groups, a matter which is discussed in more detail on page 46 below. To the extent that the tax is paid from corporation savings, the situation is quite different. No immediate or direct pressure on consumption will result and our preceding conclusions will have to be revised accordingly.

Again, it is important to obtain some idea of the magnitudes involved. No satisfactory study of corporation tax shifting has as yet been made, but let us assume as a working rule that one-third of the corporation income tax will ordinarily fall on corporation savings, the ratio being higher in boom periods and lower in times of depression. Assuming corporation profits before tax of, say, 18 billion dollars and a 30 per cent tax rate, we would have a yield of 5.5 billion. Of the total, close to 3 billion might come out of savings, personal and corporate, whereas this portion might have been less than 2 billion had the same yield been ob-

tained from personal income taxes.[5] If the corporation tax was imposed upon retained earnings only, its advantage would be increased further, unless as a result investment would be reduced. While the billion dollar difference between personal and corporation income taxes shown in our illustration is significant, it is not large relative to a revenue total of 20 or 25 billion dollars. The consumption impact of the revenue structure as a whole will not be reduced greatly by general corporation taxes unless rates are very high. In this case, possible adverse effects upon investment must also be considered.

MINIMIZING TAX DETERRENTS TO INVESTMENT

Next to minimizing tax pressures on consumption, tax deterrents to investment must be avoided. Nothing is gained, in terms of total demand, if tax pressures on consumption are lifted by $100, while investment expenditures are depressed by a similar amount. There are two main aspects to this problem. Taxation may curtail investment by reducing savings and hence the supply of available funds, or it may reduce the attractiveness of investment and hence the extent to which available funds are channeled into investment outlets. In either case a serious dilemma arises. Among the conventional forms of taxation, those which depress consumption least are also those which are likely to deter investment most.

Supply of Savings. Barring drastic changes in the community's saving habits or in methods of taxation, it is unlikely that for some time there will be a *general* shortage of savings, relative to the demand for investment funds. Should a general shortage of savings arise, moreover, the problem would be how to check inflation, not how to prevent deflation. The answer might then lie in additional taxes on investment or consumption, depending upon the community's choice. The problem would be relatively simple in either case, as the deflation dilemma of having to minimize the tax burden on both consumption and investment would not exist.

[5] The illustration is based on these assumptions: Suppose that one-third of the corporation tax is shifted to consumers or wage earners, one-third drawn from reduced dividends, and one-third from reduced savings. The total tax impact upon savings might then equal 1.8 billion dollars (the fraction falling upon corporation savings) plus 0.6 billion (reduced individual savings due to reduced dividends) plus 0.3 billion (reduced individual savings due to higher prices or lower wages), or a total of 2.7 billion. (These figures are based on the assumption that the cut in dividends, being borne more largely by the higher income groups, will also be reflected more largely in reduced savings than the cut in wages.) Had the 5.4 billion dollars been raised by a general increase in the personal income tax, the savings fraction might have been nearer to one-third or 1.8 billion.

The situation is different, however, if effects upon *specific* kinds of savings are considered. While the general situation may remain deflationary and total savings ample, taxes may curtail the availability of funds to certain enterprises and hence depress investment. This result is most likely to arise from heavy taxes on small or new firms which have limited resources and no ready access to the capital market. While the solution is mainly in providing these firms with the necessary market facilities, special income tax provisions are required to protect their interests. Also, there is a possibility that progressive taxation may leave an adequate savings total, but curtail just those personal savings which would have been most likely to flow into risk investment. There has been much discussion of venture capital in this connection, but little is known about its sources. If surtax schedules are to be planned intelligently, more information is needed regarding the investment patterns pursued by various income groups.

While no general case against progression is established by these considerations, progression must be applied in a way which will allow for the qualitative aspects of capital supply.

Investment Incentives and High Bracket Rates. More important than effects upon the supply of savings are tax deterrents to the investment of available funds, which may be considerably in excess of current savings. If expected investment yields are cut through severe tax rates, investment tends to be discouraged, particularly in risky ventures, while the holding of cash balances tends to be encouraged. As a result, taxation of investment income may depress expenditures for plant and equipment by a multiple of the tax yield.

The *level of tax rates* on capital income is usually the first concern in this connection. Actually, the *definition of taxable net income* may be the more basic factor. Considering first the level of rates, we are confronted with a conflict between various objectives. Investment considerations make it desirable to avoid very high surtax rates in the upper income ranges while consumption considerations call for moderate rates in the lower income brackets. Yet, if the necessary yield is to be raised, some compromise must be reached. While it is not possible to say exactly how high tax rates may be without investment effects becoming oppressive, some general comments can be made.

The case for steep progression at the very upper end of the income range—for incomes in excess of $100,000, for instance—is not very impressive from the point of view of tax yield. The number of taxpayers

and the total income affected by steep rates in these brackets are relatively small. Total income subject to surtax rates in excess of the $100,000 bracket is less than 1 billion dollars. The yield gained from applying say, an 80 per cent rate instead of a 65 per cent rate would thus fall short of 150 million dollars.[6] This slight yield advantage may not be worth the price of the deterring investment effects which it may entail. But by the same token, it may also be argued that investment effects are not likely to be substantial, since the amount of income involved is small. Hence, equity considerations in favor of steep progression may be decisive. On balance, however, the case for a maximum rate not in excess of say 65 per cent appears fairly strong, particularly since heavy taxation of the highest income brackets can be undertaken with less detriment to investment through additional reliance on estate taxation.

The question of progression is more serious within the $25,000 to $100,000 brackets, as the level of rates over this range will have a substantial effect upon tax yield. Also, these are the income groups which are likely to supply the bulk of individual investment and to control the larger part of corporation capital. The issue here is not only what rate should be reached for incomes close to $100,000 but also how fast progression should increase. The bulk of income, and hence of potential yield, is again concentrated at the lower end of the range. With a yield requirement for the personal income tax of approximately 15 billion dollars, it will be necessary to have a rate schedule which rises fairly rapidly over the middle income range reaching say a 40 per cent level for surtax net income in excess of $20,000. If at the same time the top rate is not to exceed 65 per cent, it follows that progression between the $20,000 and $100,000 levels could be fairly moderate. What the exact rate of progression should be must eventually be determined with reference to the investment patterns of taxpayers in the different income brackets. Assuming that a proper definition of net income is applied, surtax rates ranging from about 40 per cent at an income of $20,000 up to 50 per cent around $50,000 and to 65 per cent for incomes in excess of $100,000 may prove a reasonable compromise, if supplemented by a tightening of the estate tax.

Investment Effects of Personal vs. Corporation Taxes. As far as the

[6] Under the present rate schedule the 65 per cent rate applies to surtax net income in excess of $32,000. The revenue loss which would result if the present rate schedule were retained except for limiting surtax rates to 65 per cent would amount to approximately 700 million dollars out of a total surtax yield of about 15 billion.

total tax burden upon capital income is concerned, the combined tax rates under the personal and corporation income taxes must be considered. With a 60 per cent surtax rate and a 15 per cent corporation rate on dividends paid, for instance, the combined rate on dividend income would be 66 per cent.[7] Whatever the combined rate, there is the question, however, at what combination of the two the pressures upon investment will be least.

Personal taxes may well be less but will hardly be more detrimental to investment than corporation taxes. Where investment decisions are made by the corporation executive, guided by the corporation's interest and with little or no immediate reference to the stockholder's personal tax situation, the corporation tax will clearly depress investment more than the personal tax. Where decisions are made by the *individual* investor, the investment deterrent will tend to be the same whether the tax is collected from the *corporation* prior to dividend payment or from the stockholder later on, provided only that the same total burden is borne by dividend income under the two approaches. As a matter of practical policy this proviso, of course, need not hold. The individual investor may well prefer taxation at the corporation level if he expects the corporation tax to be shifted, undistributed profits to go untaxed, or a highly progressive increase in the personal income tax to threaten as the alternative to a lower corporation tax. Similarly, the investor might well prefer the personal income tax if its rates would prove to be less progressive, either in terms of the surtax schedule or of the capital gains loophole. The answer thus depends on the specific alternatives which are compared.

Loss Offset. Tax deterrents to investment depend not only on the level of rates and the degree of progression but, in a more basic sense, on the way in which taxable net income is defined. Most important in this respect is the provision for offsetting losses against other income earned in preceding or later periods to determine net income for tax purposes. Without such offset, risky investments are discriminated against because they involve the greatest likelihood of losses. If gains are made, taxes must be paid, but if losses are suffered, no tax advantage results. With loss offset assured, there would be no such discrimination since tax liabilities on other income would be reduced when losses were incurred. The Treasury, under these conditions, would share at the same rate in

[7] Out of $100 of corporation profits otherwise available for distribution, $85 would be left for dividends. After a 60 per cent personal tax, $34 would remain. The total rate would thus be 66 per cent, not 75 per cent, as would be surmised if both rates were added together.

potential investment losses as well as in potential gains. The tax in effect would reduce the investor's potential loss as much as gain, thereby leaving intact the return on risk-taking.[8] By assuring that losses can be offset, we can substantially reduce the discriminating effects of taxation on risk-taking and hence tax deterrents to investment.

Full offset of losses is, however, not always possible. With a carry-forward period of, say, six years, and a carry-back of perhaps two years, the possibility of loss offset is likely to be assured as far as established corporations or wealthy individuals are concerned. The new enterprise which does not succeed, however, cannot be taken care of by any such averaging provision. As success or failure is always uncertain at the outset, this is a serious deterrent to investment. It could be remedied only by adopting a policy under which the Treasury would undertake to make refunds (at a fraction equal to the tax rate) for losses which cannot be deducted from taxes because of the absence of other income on which taxes are paid. While this approach is somewhat unorthodox and not without difficulties, experimentation in this direction might be desirable.

Estate taxation, as any tax on capital, has the peculiar advantage in this respect that a complete offset of losses is automatically assured. This arises from the fact that an investment loss is also a capital loss and thus directly reduces the future estate tax liability. The presence of taxable income, against which the loss may be offset, is not required. This is an important reason why estate tax rates are less likely to interfere with investment incentives than equivalent surtax rates under the personal income tax.

[8] This may be illustrated for the case of a proportional tax of, say, 25 per cent, assuming a full loss offset to be possible. Consider an investor who, in the coming year, will obtain an assured income, say, a director's salary of $10,000. Of this, $2,500 will be paid as tax, and $7,500 will remain after tax. Suppose now that he considers an investment of $2,000, which in the worst case may result in a loss of that amount. He knows that if a profit is made it will be taxed at 25 per cent, but he also knows that if a loss is incurred, it may be deducted from his other income. If a $2,000 loss is suffered, his taxable income will thus be reduced to $8,000 and his tax would be cut to $2,000. Total income remaining after tax (and loss) would then be $6,000 as against $7,500 had the investment not been made and no loss suffered. The net loss from the investment, after accounting for the drop in tax liability, would thus be $1,500, even though the gross loss was $2,000. The remaining $500 or 25 per cent (that is, a fraction equal to the tax rate) would have been absorbed by the Treasury via a reduced tax liability on the investor's other income. In considering the advisability of investment, the investor thus finds both the expected return and risk (or loss) of the investment equally reduced by the rate of the tax, this result being the same whatever the tax rate which applies. The compensation for risk-taking (that is, the ratio of the expected return to the expected loss) thus remains unchanged.

For a more detailed discussion, see Evsey D. Domar and Richard A. Musgrave, "Proportional Income Taxation and Risk-Taking," *Quarterly Journal of Economics*, May 1944, pp. 388–422.

Averaging of Income over Time. The application of progressive rates under the personal income tax, and to a much lesser extent under the corporation income tax, produces a further difficulty. If potential gains fall into a higher rate bracket than potential losses, risk-taking is discriminated against even though losses can be offset. To avoid this, a redefinition of taxable income would be required which would substitute an income average for the per annum income definition now in use. This revision would meet a further important objective. The combination of annual accounting periods with progressive rates discriminates against those incomes which accrue unevenly over time. Thus, the total tax paid on an income of $100,000 received over a period of five years will be substantially higher—up to twice as much—if the income flow is distributed unevenly than if $20,000 is received each year. Since volatile income is likely to be income from risky investments, this involves a further deterrent to risk-taking.

Both on economic and equity grounds, there is a strong case for a general averaging device. If a longer income period will result in a better definition of taxable net income, there is no basic reason why the annual accounting period should be retained in the tax law. While an averaging procedure may be devised which would avoid the pitfalls of earlier experiments in Wisconsin and abroad, the administrative difficulties of a general averaging scheme are nevertheless formidable.[9] In particular this applies to taxpayers in the low-income brackets. A general averaging scheme to be equitable should apply to all taxpayers. Since there is no difference in principle between exemptions and progressive bracket rates, both should be included in the averaging privilege. Taxpayers at the lower end of the income scale, whose incomes may fall below the exemption limits in some years, should thus be permitted to carry these unused exemptions against their taxable incomes of other years. While this would be wholly equitable, it would vastly increase the number of returns subject to averaging. Should substantial fluctuations in employment occur, extensive refund claims would result during depression periods. The timing of such refunds would, on the whole, articulate com-

[9] The most feasible averaging provision would permit the taxpayer to recompute his tax liability on an average income basis at, say, five-year intervals, and to claim refunds for the difference between aggregate taxes paid on annual incomes and revised liabilities on an average income basis. This approach would protect the taxpayer against the danger of having to pay high income taxes in a low income year (as might result if the tax base was defined annually as an average of the last two or three years' income) and the Treasury against the danger of having to pay large refunds at an inexpedient time. An averaging procedure along these lines has been advocated for some time by Professor Henry Simons.

pensatory policies, but there is some doubt whether it would be desirable to allocate in advance a large part of the depression budget for this purpose. The whole problem is in need of further study.

Capital Gains. Averaging proposals may be based upon equity considerations, in which case they should apply to all volatile incomes. As far as investment incentives are concerned, however, the problem largely reduces to the treatment of capital gains and losses, since the bulk of volatile investment income accrues in the form of capital gains rather than salaries or dividends. With respect to investment incentives the problem of averaging is largely one of capital gains treatment.

Under current and prewar practice capital gains are taxed at a preferential rate, and only limited offset of capital losses is permitted. This position is a compromise between inclusion of all capital gains and losses with other income and their complete tax exemption. It has several disadvantages. The preferential rate for capital gains seriously interferes with the progressiveness of the income tax, since capital gains compose an increasing portion of income, the higher the surtax bracket. Moreover, income of various kinds may be translated into capital gains to avoid high surtax rates. Thus a major loophole results from the preferential treatment of capital gains.

Whatever the tax rates, capital gains income has the advantage of becoming taxable only when realized. Yet, where *bona fide* investment gains are concerned, some further argument might be advanced for providing the incentive of a preferential rate. Profits from new ventures, in many cases, are derived in the form of capital gains. These particular gains, therefore, may have a more strategic position in regard to investment incentives than dividends or other forms of capital income. However, this is by no means true for all forms of capital gains. Where the capital gains are of a purely speculative kind or act as a cloak for other income, there is no case for preferential treatment. Redefinition of capital gains to exclude profits from purely financial speculation or similar sources might be a solution, but is technically most difficult. Neither can the problem be solved by including all capital gains and losses with other income, desirable as this may be in principle. Since the accrual of gains and losses is highly irregular, their taxation on an annual basis and at full rates would be discriminatory.

The problem might be solved by applying an averaging device to capital gains income. As capital gains offer a special case, this would not necessitate the immediate application of averaging to all other income. It would

thus be more manageable. The principle of the plan would be to permit the taxpayer to average his capital gains or losses over a period of years, the period being equal to the number of years for which the asset was held prior to realization.[10] Given such an averaging provision, the preferential rate for capital gains could be discontinued and the averaged gains or losses be included with other income. Determination of the rates at which capital gains, as other investment income, should be taxed would become part of the general problem of progression in high-income brackets. To close further loopholes, capital gains should be considered realized at the time of death and be made taxable under the personal income tax prior to inclusion in the estate.[11]

Small and New Enterprises. Investment effects of taxation need to be considered in particular in their impact upon small and new firms. Enterprises of this type, which are not firmly established and have limited capital resources, are most susceptible to tax deterrents. If subjected to the same rate of tax, they are likely to suffer a greater hardship than large and established firms. They are less able to offset their losses or to obtain new capital. Yet they are the very firms which are most vital to a vigorous enterprise system, to assure competition, develop new products, and provide for a high level of investment. The tax structure must not only avoid discrimination against such firms but should discriminate in their favor.

Tax advantages for small corporations have been provided in the pas through specific exemptions or progression in the lower rate brackets. The mechanics of both procedures are fairly simple and might be extended further, preferably through providing for increased exemptions up to perhaps $25,000 under the corporation income tax.[12] This might exempt 80 or 90 per cent of all corporations from taxation, while reducing taxable net income by perhaps less than 10 per cent. Also, if a general corporation tax is retained, it may be desirable for tax purposes to treat small corporations as partnerships.

Preferential tax treatment of new firms is desirable as a matter of economic policy, but unfortunately it is difficult to design a workable

[10] Gains or losses from assets held for over 5 years might be limited to a 5-year averaging period; gains or losses from assets held for only one year would be excluded from averaging.

[11] This proposal also has long been advocated by Professor Henry Simons.

[12] One reason for limiting the exemption to some such level is that higher exemptions provide a loophole through which larger corporations could evade taxes by separating formally for tax return purposes. Also, to the extent that profits are exempted from the corporation tax, retained earnings will remain free of any tax until dividends are distributed or capital gains are realized.

definition of a "new" firm. The general economic criteria which should be followed are fairly clear: The venture should involve the development of a new product or the entry of a new firm into an established field; the new firm should have no close financial links to existing enterprises; and preferably the venture should involve the purchase of new capital assets. Whatever the general criteria that may be established, a good deal of discretion is necessary in their application. Possibly the creation of a special tax court might be considered which would have to rule on the eligibility of new firms applying for favorable treatment under a new-firm provision, the burden of proof being upon the claimants.

Pending a solution to this problem, new firms will be helped by any device aiming at a favorable treatment of expanding enterprises, whether new or old. Within the framework of the regular corporation income tax, one of the most important items in this connection is the treatment of research expenditures. They should be defined liberally to include a comprehensive group of outlays undertaken for the development of new processes or products. The taxpayer should be permitted to treat these outlays as current expenses to be charged against current income. Also, adequate provision for the treatment of losses is most important to the new and expanding firm.

Tax Exempt Securities. Any program aimed at removing tax deterrents to investment must include repeal of the tax exemption privilege now granted to interest on State and local securities. This exemption privilege is not only highly inequitable and costly to the Treasury but acts as a major deterrent to risk-taking. A wealthy taxpayer who is subject to a surtax rate of 65 per cent, for instance, will find investment in a tax-exempt 4 per cent bond equivalent to investment in a taxable venture paying 12 per cent before tax, quite apart from avoiding the risks of the higher yield security. The tax advantage of gilt-edged investment, and the relative disadvantage of risk investment, moreover, are greater the higher the surtax bracket. Risk investment, therefore, is deterred most at the very source from which venture capital should be expected to flow. Speedy steps should be taken to remedy this situation.

INCENTIVE TAXATION

The preceding discussion has been concerned with ways and means of minimizing the "deflationary evil" of taxation. Reviewing our conclusions, it appears that if the required tax yield is high, the potentialities of tax policy in this direction are not very promising. It is more important

to decide upon the correct level of total tax yield than to construct the best possible tax system. The case for qualitative tax policy may become stronger, however, if a more positive approach is taken and tax instruments are designed to achieve desirable ends, rather than merely to avoid undesirable results. The possibilities of an active tax policy of this kind are as yet unexplored; quite possibly they are very great.[13]

Only some of the major aspects of incentive taxation can be noted here. The entire approach is based on the taxpayer's natural desire to avoid taxes. It offers him the option or incentive to reduce his liability by complying with certain requirements established by the law. The incentive may be aimed at increasing or reducing the level of private investment and consumption outlays. During the war, for instance, a proposal was advanced to supplement the personal income tax with a further tax imposed on income spent. Savings would have remained tax free under this supplementary "spending tax," so that there would have been a direct inducement for the taxpayer to save more and to spend less. The resulting reduction in expenditures would obviously have been greater than under the traditional income tax which reduces the taxpayer's ability to spend but does not increase the relative attractiveness of saving as against spending.

For the postwar setting, we shall be more interested in incentive taxation aimed at rendering it advantageous for the taxpayer to consume and to invest, rather than to retain idle income. There are two approaches to this goal. One is through the taxation of idle *balances;* the other through favorable tax treatment of current *income* spent on consumption or investment, as against income which is not returned to the expenditure stream.

Taxation of Idle Balances. The first approach, a tax on accumulated hoards, would render it costly to hold idle funds and thus increase the relative attractiveness of expenditures for consumption or investment. An annual tax on existing bank balances and holdings of cash at a rate

[13] Incentive taxation is found objectionable at times because preferential tax treatment of some taxpayers is considered the equivalent of a subsidy payment. This, however, is largely a matter of terminology. Suppose, for instance, that income which is reinvested is taxed less heavily than income which is retained idle. It would then seem a moot question whether the tax advantage to those who invest should be considered a subsidy and the resulting drop in tax payments a loss in tax yield, or whether the tax disadvantage to those who do not invest should be considered a penalty and the resulting increase in tax payments a gain in yield. The very same kind of problem is involved whenever a choice is made between drawing on one or another tax source.

The political aspects of incentive taxation, which may form another basis of objection, cannot be considered here.

as low as one or two per cent, for instance, might considerably reduce the attractiveness of hoarding. As a result, expenditures on consumption and investment might be greatly increased. As far as a choice between liquidity or investment is concerned, the result of such a tax would be much the same as that of a rise in investment yields; in both cases the relative attractiveness of investment would be increased. At the same time, however, the tax on idle balances would not raise the cost of capital to the borrower; on the contrary, this cost would be reduced.[14]

Such attention as has been given to this approach in the past has been concerned largely with its administrative difficulties. Thus, it has been pointed out that, short of a periodical calling in of outstanding currency, it might not be possible to enforce the declaration of assets held, even though this difficulty might be reduced by granting substantial exemptions. Similarly, it has been pointed out that attempts might be made to evade the tax through transfer of funds into other liquid assets which might remain untaxed and would come to serve as money substitutes. This, however, would result in an increased tax liability to new holders unless debts to banks are paid off and the balances disappear. To the extent that the bidding for liquid assets would result in a general reduction of the interest rate and through it in a higher level of expenditures, the purpose of the plan would be met. Allowing for technical and other difficulties, such as questions of constitutionality, this approach deserves a more careful consideration than it has been given to date. If feasible, it might greatly change the techniques of compensatory fiscal policy.

Taxation of Idle Income. The second approach appears less difficult and novel, particularly as it applies to incentives for investment expenditures. While investment might be given some encouragement through a simple reduction in tax rates, it might be encouraged more powerfully and more directly by giving preferential tax treatment to income which is reinvested as against income which is hoarded. Application of this principle to the corporation income tax will be considered briefly. The more far reaching and difficult problems of a personal tax on additions to liquid balances will be passed over.

Taxable income under the corporation tax (or a tax supplementary thereto) could be redefined to include net income before depreciation allowances, minus distributed profits and minus current expenditures on

[14] The implications of this approach are far reaching. If a tax on liquid funds was imposed, the yield on relatively riskless investment might be driven to zero or become negative. The inability of the interest rate to fall to a sufficiently low level, which at times has been blamed for our economic ills, could thus be overcome.

plant, equipment, or inventory. All such capital expenditures would be deducted, whether undertaken for expansion or replacement. The tax would thus be limited to that part of gross income which is neither distributed nor reinvested in real terms. The taxpayer would have the option of avoiding the tax either by distributing his profits in the form of dividends or by reinvesting his retained earnings. To protect legitimate requirements for cash holdings, liberal carry-over provisions would be applied so that short-run accumulation of funds would not be penalized. Provisions would have to be made to allow for increasing need of working capital in a growing firm. While all plans of this kind involve technical difficulties such as the treatment of changes in debt liability or transfers of second-hand equipment, which cannot be discarded easily, it should be possible to work out a practicable solution.[15]

An alternative and simpler approach to the problem might be taken through *accelerated depreciation*, that is, shortening of the time period over which depreciation charges may be written off against taxable income. In the extreme case, the taxpayer would be permitted complete freedom in the timing of his depreciation charges. Income currently invested in depreciable assets (whether for new or replacement purposes) could then be fully charged to depreciation and would in effect be exempt from taxation. Combined with a full or partial tax exemption of undistributed profits, the result would be rather similar to that of the previously indicated approach: Essentially the tax would be restricted to income which is retained but not invested in depreciable assets. No tax would be paid by the firm which distributes or reinvests its current income. Accelerated depreciation would thus give a considerable stimulus to investment expenditures and a substantial tax advantage to the young and expanding firm. Combined with a credit for dividends paid, it would be a powerful deterrent to corporate hoarding.

Accelerated depreciation should be applicable to depreciation charges on new investment only; no incentive purpose would be served by extending the privilege to depreciation on existing assets. Though limited to new investment, accelerated depreciation might still result in a considerable reduction in corporation tax yield, but this is no argument against it unless the effects of other yield reductions should prove prefer-

[15] Proposals of this kind have been advanced by various authors. Cf., for instance, Gerhard Colm, "Full Employment Through Tax Policy?," *Social Research*, November 1940; Ruth P. Mack, "The Fullest Measure of Employment after Victory," *Pabst Prize Essays*, 1944; and M. Kalecki, *The Economics of Full Employment*, Oxford, 1944 p. 46.

able.[16] If desired, moreover, the revenue loss may be made good through a higher corporation rate. Whatever the precise rates of depreciation allowed should be, a sharp acceleration of present schedules is highly desirable.

A FLEXIBLE TAX POLICY

The discussion so far has proceeded on the principle that taxes should be raised with the least depressing effect upon private spending. The underlying assumption has been that general economic conditions will tend to be deflationary. With respect to the basic revenue structure, which cannot be altered frequently, this is the more prudent approach. Yet, it is also evident that economic conditions will differ from time to time. Hence, a second principle must be allowed for: *The revenue structure should be sufficiently flexible to meet changing conditions as they arise.*

The requirements for a flexible tax policy are of two kinds. Preference should be given to taxes whose yield is sensitive to changes in income, so that yields rise sharply when national income rises and fall when income falls. Thereby the tax burden tends to adjust itself to the community's capacity to pay and the need for frequent changes in tax rates is reduced. However, automatic changes in yield will hardly suffice, so that provision must be made for prompt adjustability of rates at some strategic points of the system. This is needed even though frequent changes in the basic revenue structure are undesirable.

Elasticity of Yield. The yield of taxes under any given set of rates depends upon the general level of income and employment in the economy. Changes in national income, therefore, result in more or less similar changes in tax yield. Since some components of income have less stability than others, the yield of certain taxes will be more sensitive to changes in income than that of others. Wages, for example, are more stable than corporation profits, and consumer expenditures more stable than consumer incomes. The yield from taxes on the lower income groups or on consumption, therefore, tends to be less sensitive to changes in business conditions than the yield from profit or high income taxes. On the whole,

[16] If investment does not increase, the annual loss of yield from accelerated depreciation will finally disappear after some time. If increased investment results, an annual loss of yield will continue, but it might be more than offset by *generally* increased yields due to a higher level of national income.

Accelerated depreciation proposals also have their difficulties. If tax rates change over the years, the Treasury must protect itself against manipulations in the timing of depreciation charges. The taxpayer may be permitted to choose his depreciation schedule, but he should be required to retain this schedule thereafter. A further difficulty arises with regard to the cyclical effects of accelerated depreciation which may not be altogether desirable.

the selection of elastic yields leads to the same preference between types of taxes as does the minimizing of tax burdens upon consumption. Estimated differences in the yield elasticity of various taxes are given in the table below.

LEVELS OF INCOME AND CHANGES IN TAX YIELDS[1]
(index numbers)

Levels of gross national product	Tax yields			
	Corporation income tax	Personal income tax	Pay-roll tax	Excises
82	40	60	80	90
100	100	100	100	100
118	160	140	120	110

[1]The elasticities shown are estimated from data of the prewar period (1930–41) with a gross national product of 85 billion dollars equal to 100 in the index. While postwar levels of gross national product will most likely be much higher, the relative elasticities will hardly be changed very greatly. The results thus obtained on the prewar basis will tend to be more reliable than those furnished by extrapolation to postwar income levels.

Straight-line regressions were used for the interpolation of postwar data. Since the data were drawn from a period of rising income, there is some doubt whether they can also be applied to downward changes in gross national product. Moreover, the fluctuations under consideration were moderate; the results may vary for more drastic changes in income. On the whole, the table should be read for the relative magnitudes of fluctuation under the various taxes; the absolute magnitudes should not be taken too literally.

The estimate for corporation tax yields was based on the years 1938–41 only, so as to exclude the sharper upturn of profits from the depression period. Income tax rates similar to those now in effect were used. With higher exemptions, the elasticity would be increased; with a less progressive surtax schedule it would be reduced. The pay-roll tax estimates are based on data from 1937 to 1943, earlier data not being available. The excise elasticities reflect a weighted average of elasticities (by yield), applicable to the three major sources of excise yield—liquor, beer, and tobacco. While the elasticity for taxes on high luxury items, such as furs, would undoubtedly be greater, their yield is of minor significance.

The table shows the fluctuations in the yield of different taxes which would tend to accompany a moderate increase or decrease in the level of national income or gross national product. It indicates that the corporation income tax will be most sensitive and excises will be least sensitive to the change. Personal income tax yield, similarly, is rather sensitive, while pay-roll tax yield is rather insensitive. The result clearly speaks in favor of extensive reliance on income taxes.

Adjustability of Rates. The assurance of speedy action in rate adjustment is essential to the success of a full employment policy, both to forestall incipient inflationary booms and to check a downturn in business activity before a deflationary spiral has been generated.

The mechanics of the problem are fairly simple. Approximately three-fifths of the total income tax yield is now collected at the source. The general application of source withholding under the personal income tax,

introduced during the war, is most important in this connection. It represents the major accomplishment of wartime tax legislation. Through source collection, it has become administratively feasible, in the course of a few weeks, to change the level of withholding rates. The resulting changes in the level of disposable income in turn will bring about substantial changes in the rate of consumer spending. A 10 percentage point decrease in the first bracket rate, for instance, might raise the annual rate of consumer expenditures by well above 3 billion dollars; an additional 10-point variation in the second bracket might bring the increase to 4 or 5 billion dollars. While this might not be sufficient to hold off a threatening deflation, if applied promptly it might go far in meeting the situation until more extensive counter measures could be taken. Possible increases in rates and reduction in consumption expenditures, called for under conditions of incipient inflation, may be undertaken in much wider limits. If applied courageously, they provide a most powerful tool for checking inflation.

Variation of withholding schedules raises some administrative difficulties, and in some cases may require a semi-annual tax return. However, the technicalities involved are not too serious and the prevention of instability may be worth the price of an occasional inefficiency in tax collections. Rather, the major difficulty is political. To expedite prompt adjustments, the lengthy process of revenue legislation must be short circuited: Power to adjust rates would have to be delegated to some authority which would be in a position to act quickly. Again, the obstacle may be overcome. Congress might define the limits within which rate adjustments could be made and, possibly, the general conditions under which adjustments could be undertaken. The authority responsible for such adjustment should include representatives from both the legislative and executive branches of the Government. Legislation along these lines is urgent and would make one of the most promising contributions to postwar stability.

PLACE OF THE CORPORATION INCOME TAX

The tax treatment of corporation profits will be a key factor in the coming revenue legislation. While it is altogether unlikely that an excess profits tax will be reenacted in the post-transition period, opinions differ widely regarding the future of the regular corporation income tax.

In principle, there is no good reason why income should be taxed at the business level, if it may be taxed more equitably when received by

the individuals who own the business. Why not repeal the general corporation tax in favor of increased reliance on the personal income tax? Actually, the choice is not that simple. First, we cannot successfully tax all corporation profits when received as personal income by the shareholder, since a substantial part of corporation income, temporarily or permanently, remains with the corporation and is not paid out in dividends. An integration of income taxation under the corporation and personal income taxes is needed. Secondly, it will hardly be feasible politically to meet total revenue requirements from the personal income tax alone; a corporation tax, for instance, may well be preferable if increased reliance on excise taxation would be the alternative. Thirdly, the corporation tax needs to be appraised as a means of controlling monopoly or the size of business units. Each of these aspects requires closer consideration.

Integration of Personal and Corporation Income Taxes. The main function of the corporation tax is to facilitate the taxation of income retained by the corporation and not subject to the personal income tax, unless and until it is distributed at some future date or realized by the shareholder through capital gains. Even though no corporation tax were imposed, the *eventual* taxation of retained earnings may be assured under the personal income tax by providing that all capital gains should be subject to personal income tax at the time of death, whether or not the gains have been realized. But this is not a satisfactory solution, since it is also desirable to subject retained earnings to some *current* taxation. Ideally these earnings could be imputed to the shareholder and included in his personal tax liability; but this is hardly feasible except for small and closely held corporations which might be treated as partnerships. Various techniques may be developed, however, to approximate this result. An additional undistributed profits tax might be imposed as in the thirties; or, as suggested in some current tax plans, a moderate corporation tax might be continued but the corporation might be permitted to deduct dividends paid (fully or partly) from taxable income. If, as is now likely, the courts would regard stock dividends as taxable income under the personal income tax, stock as well as cash dividends might be deductible. As an alternative to permitting the corporation to deduct dividends paid, the corporation tax might be applied to total profits and the dividend recipient be permitted to credit the tax paid for him by the corporation against his personal income tax liability. Where necessary, refunds would be made to the dividend recipient. This is the ap-

proach taken by the British law and currently proposed by the Committee for Economic Development. Many variants to both approaches might be considered. While neither approach is completely satisfactory and the result of both may seem similar, it appears preferable, for various reasons, to permit the deduction of dividends by the corporation rather than to give a credit to the shareholder.[17]

If corporations are taxed on retained earnings, what will be the appropriate tax rate? To approximate the conditions of yield and burden distribution which apply to the taxation of distributed profits, the rate should equal the average rates at which dividend income is taxed under the personal income tax. Considering a likely schedule of postwar surtax rates, this might be at about 35 per cent. The final rate might be somewhat higher or lower, depending upon the extent to which dividend distribution is to be encouraged.

Arrangements should be made under this plan to protect the needs of small and growing corporations which have no access to the capital market and must rely upon retained earnings for expansion. For this purpose, a certain amount of retained earnings (defined in dollar terms or, preferably, as a percentage of total profits but subject to an absolute upper limit) should be considered distributed for tax purposes and be exempt from the tax. Also, an extensive carry-over period should be permitted, so that retention of earnings in one year may be offset against distribution in excess of earnings in another year. If such safeguards are applied, the objections to the earlier undistributed profits tax would be avoided. Some pressure for the distribution of retained earnings would remain and, to the extent that this would activate otherwise idle funds, the results would be wholesome. If it was found feasible to grant a further credit for retained but reinvested earnings, as discussed on page 39 above, the taxation of retained earnings would be incom-

[17] This preference exists even though in terms of arithmetic, the deduction of dividends by the corporation may be shown to yield exactly the same result as a corresponding credit to the shareholder, such as has been proposed by the C.E.D.

Three points in particular may be noted: (1) To the extent that the corporation tax is shifted, shifting is more certain to be discontinued if tax payments made by the corporation are actually reduced, as would be the case under the dividend paid credit; (2) unless the corporation and first bracket surtax rates are at the same level, which would probably be undesirable, the personal credit approach is likely to involve a need for large refund payments by the Treasury which may be avoided under the other approach; (3) some pressure for dividend distribution resulting under the dividend paid credit is desirable, providing that adequate provision is made for small and growing corporations.

Note that the definition of corporate net income will remain an important problem in either case, whether or not taxation of corporation profits as such is continued.

plete, but the resulting incentive advantages might well be worth this defect.[18]

Corporation Tax and Alternatives. If the taxation of undistributed profits is taken care of, there remains little reason on equity grounds for retaining a general corporation income tax, applicable to total corporate profits. Disregarding, for the time being, considerations of industrial control, the continuation of a general corporation tax then becomes a question of expediency, that is, of alternatives. Should the alternative be excises on mass consumption goods or higher pay-roll taxes, a general corporation tax should be retained at a moderate rate. Its impact upon consumption would be less severe and, given adequate provisions for loss offset, its investment effects would hardly be serious. If the alternative is higher personal income taxes, however, the case is not clear cut.

Compared to increased personal income taxes, the impact of a corporation tax upon dividend income is less progressive than might be thought. Two opposing tendencies are involved. On the one hand, a tax on dividend income tends to be progressive because dividends are a sharply rising portion of income when moving up the income scale. On the other hand, it tends to be regressive because the additional burden which it imposes will be the smaller, per dollar of dividend income, the higher the dividend recipient's income bracket. While the shareholder will find his dividend income reduced when corporation taxes are raised, he will also find his personal income tax liabilities on dividend income to be less. This offsetting tax saving will be the greater, per dollar of dividend reduction, the higher his surtax bracket and his surtax rate. The additional burden of a corporation tax upon dividend income, in fact, will be the less progressive the more progressive is the personal income tax schedule.

Because of these tendencies, emphasis upon the corporation as against the personal income tax is not likely to increase progression for incomes above, say, $4,000; it may, on the contrary, reduce it.[19] The situation is different, however, if the alternative addition to personal income tax rates reaches down to the first and second surtax brackets, where the

[18] In essence, a scheme of this kind would differ but little from the philosophy of the present Section 102 of the Revenue Code, which places a penalty upon the accumulation of unnecessary surplus. However, imposition of a tax on corporate hoarding would put teeth into the regulation.

[19] Calculations with alternative rate schedules suggest that the degree of progression will remain about the same above this level, if in place of a corporation income tax, personal income tax rates are increased so as to add equal percentage points to each bracket rate.

corporation tax tends to be more progressive.[20] Thus, the answer depends upon the nature of the alternative rate increases.

To the extent that the general corporation tax falls on business savings, not dividends paid, some aspects have already been considered on page 28. However, they will hardly be substantial if a tax on retained earnings is already in effect. If a general corporation tax is applied as well, the differential rate applicable to retained earnings would have to be lower lest the combined rate would become excessive. Since corporate savings are reached more effectively through the differential rate, the net gain from the additional tax on total profits would be small in this respect.

Is the Corporation Tax Shifted? In the preceding discussion it has been assumed implicitly that the corporation tax falls on business profits; that it is not shifted to consumers through higher prices or to workers through lower wages. To the extent that the corporation tax is shifted, it is in effect an excise or pay-roll tax, and different considerations apply. The shifting factor is thus crucial in analyzing the case for or against the corporation tax. The double taxation argument or the fear that investment yields may be curtailed, for instance, makes sense only to the extent that the tax is not shifted; the argument that its repeal will result in lower prices or higher wages makes sense only to the extent that the tax is shifted.[21] Both positions cannot be argued at the same time, except as they apply to different fractions of the tax.

Probably the corporation income tax is shifted in part, although little is known about the exact extent of shifting. It is perhaps more extensive during a war boom or a period of high excess profits taxation, and less extensive under other conditions, as in depression periods when there is no sellers' market and tax rates are lower. Such evidence as is available, however, suggests that under ordinary conditions a substantial—probably the larger—part of the tax is not shifted. More concretely, the assumption that two-thirds of the tax falls on corporate profits would seem a reasonable working hypothesis.

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[20] Much of the dividend income received in the lowest surtax brackets, moreover, flows to taxpayers who file separate returns and, in terms of family incomes, fall in substantially higher brackets.

[21] This does not exclude the possibility that in the absence of immediate shifting, lower profits may result in reduced investment which, in turn, may lead to lower wages. Excise taxes similarly may result in reduced demand which, in turn, may lead to less investment and a decline in profits. But before analyzing the long-run effects of either tax, we must know its initial effects. Whether a tax on profits is thought to be more harmful than a tax on wages or prices, or vice versa, the effects of the corporation tax cannot be analyzed without knowing what its *initial* impact will be.

If the shifting factor is allowed for, our conclusions are not substantially modified. The general corporation tax becomes less progressive and its merits, relative to those of additional personal income taxes, are reduced. Still, as long as the corporation tax is shifted only in part, it remains superior to additional excise or pay-roll taxes. The shifting factor, finally, strengthens the case for a tax on retained earnings, since shifting will be more difficult if the tax is imposed on a segment of profits only.

Corporation Taxes for Industrial Control. An altogether different approach to the corporation tax problem can only be noted here. If taxes are to be used to strengthen the competitive position of small enterprise, as may well be desirable for social or economic reasons, exemptions from a moderate tax on retained earnings might not be sufficient to do the job. A penalty tax on bigness might be required, that is a corporation tax on profits, involving high exemptions and possibly progressive rates.[22] While the case for a general corporation tax with exemptions is strengthened by these considerations, tax penalties on bigness should not be permitted, at this time, to conflict with the maintenance of a high level of total business investment by small and large enterprises combined.

It should also be pointed out in this connection that bigness and monopoly are not identical. A general corporation income tax with appropriate exemptions may serve to improve the relative position of small (and possibly new) enterprise, but it does not offer a direct attack on monopoly profits. To do so a different approach, perhaps in terms of an adjusted excess profits tax, would be required. A host of difficult technical and administrative problems are involved which cannot be considered here.[23]

OUTLINE OF REVENUE PROGRAM

In conclusion, the outlines of a revenue program are presented. As the program is based on the principles developed in earlier pages, a summary statement will suffice.

Timing of Rate Reductions. The timing of further tax cuts, as other details of tax policy during the transition period, cannot be considered here. Wartime taxation should be tapered off gradually only, in pace

[22] Theoretically, the matter might also be taken care of through preferential personal income tax treatment of dividends or capital gains derived from investments in small corporations, but the administrative difficulties involved would be much greater.

[23] They do not rate, on the whole, a very high priority for postwar tax policy, particularly if the monopoly problem and monopolistic barriers to investment are attacked vigorously through other channels. Cf. Howard S. Ellis, "Monopoly and Unemployment," in *Prices, Wages, and Employment*, another pamphlet in this series.

with the economy's transition to a peacetime basis. *While general inflationary pressures continue and the Federal budget remains abnormally large, wartime taxes should continue to apply.* The 6 billion dollar reduction in 1946 liabilities already provided for under the Revenue Act of 1945 was not in accord with this principle. The excess profits tax, in particular, should have been retained for another 12 months, though at a reduced rate, to be terminated together with its carry-back provisions at the end of 1946. Further tax reductions should not be undertaken hastily but should be postponed until peacetime production has been resumed more fully and present inflation potentials have subsided. The following program disregards these timing factors and presents the end results toward which gradual adjustments should be aimed.

Yield Composition. The proposed plan provides for a yield of 25 billion dollars, including pay-roll tax receipts, to be obtained at a gross national product level of 185 billion. This is about 6.5 billion dollars below the yield provided under the present (1945) law. It is roughly in line with the yield of some other recent plans.[24]

From the preceding discussion, it appears that the *greatest possible reliance should be placed on the personal income tax, supplemented by a tax on retained corporate earnings and a revised estate and gift tax.* Also, it appears that pay-roll taxes and excises should be repealed, with the possible exception of excises on some luxury items. But certain exceptions to the rule may prove necessary.

While pay-roll taxes are highly undesirable in their economic effects, there are compelling social reasons for retaining them in part.[25] The yield of 2.5 billion dollars derived from a 2 per cent tax on employers and employees each, will be approximately sufficient to finance one-half

[24] For a gross national product, prior to Federal excises, of 170 billion dollars, I have estimated the yield of the Committee for Economic Development, Ruml-Sonne and Twin City plans at 19.5, 18.4 and 23.2 billion, respectively. Including 3 billion dollars for pay-roll taxes (here provided for), the totals would be equal to 22.5, 21.4 and 26.2 billion. Adjusting upward for a gross national product, prior to excises, of 180 billion dollars, the plans might provide for 25, 24 and 29 billion, respectively. These amounts are comparable to the 25 billion dollar yield requirement here presented. For further yield comparisons, see my article, "Three Plans for Postwar Taxation," *Federal Reserve Bulletin*, December 1944, pp. 1163–1176.

[25] From a fiscal policy point of view, there are compelling reasons against financing an expanded social security program out of increased pay-roll taxes. However, at this stage, there is an overruling political and social argument for retaining a moderate contributory element in the system. The compromise here visualized is that the program would be supported half from pay-roll taxes and half out of the general budget. For a further discussion of these problems see, Eliot Swan, "Economic Aspects of Social Security," in *Housing, Social Security, and Public Works*, another pamphlet in this series.

of an expanded social security program (excluding unemployment insurance), the remainder to be supplied from general receipts.

INCOME TAX LIABILITIES AT SELECTED INCOME LEVELS
(Head of family, one dependent)

Net income before exemptions	Income tax liability, Revenue Act of:			
	1941	1944	1945	Proposed[1]
$ 1,000	. . .	$ 15	.....	. . .
1,500	. . .	30	.....	....
2,000	$ 6	145	$ 95	$ 40
3,000	98	375	285	240
4,000	197	615	485	444
5,000	323	865	694	664
10,000	1,205	2,415	2,024	2,020
20,000	4,446	7,050	6,142	5,638
50,000	20,203	27,225	24,453	19,158
100,000	52,432	69,000	62,714	46,924

[1] Exemptions of $600 per person and rates ranging from 20 per cent in the first bracket to 35 per cent for the $10,000–$12,000 bracket, 40 per cent for the $20,000–$22,000 bracket, 50 per cent for the $50,000–$60,000 bracket, 62 per cent for the $90,000–$100,000 bracket, and 65 per cent for net income in excess of $100,000.

If 2.5 billion dollars is obtained from pay-roll taxes, 1 billion from a thoroughly revised estate and gift tax, and 2 billion from miscellaneous other revenue sources such as minor excises on luxury items and customs, 19.5 billion remains to be obtained from income taxes. A 35 per cent corporation tax on retained earnings might provide for an additional 3.5 billion dollars, which leaves 16 billion for the personal income tax. To obtain this yield, the rate reductions under the Revenue Act of 1945 would have to be repealed; only the increase in normal tax exemptions provided for under that Act could be retained. If high bracket surtax rates were to be reduced somewhat, other rates would in fact have to be raised.

While the retention of a 16 billion personal income tax yield may be the best arrangement from the economist's point of view, it will hardly be a feasible plan. Some further reduction in liabilities for the lower and middle income brackets will most certainly be enacted so that additional revenue will have to be obtained from some other source. Retention of a moderate, say 10 per cent, tax on total corporation profits is preferable in this situation, as compared to the alternative of filling the entire gap with higher excise rates. Allowing for a 30 per cent tax on retained earnings, this would raise the estimated corporation yield to 5 billion dollars

thus permitting a drop in the personal income tax requirements to 14.5 billion. Allowing further for the retention of excises on liquor and tobacco at one-half their 1946 rates, the personal income tax quota may finally be reduced to 13 billion.

On this basis, an increase in personal income tax exemptions to $600 will be permissible if the first bracket rate remains at 20 per cent. For taxpayers in the lowest income brackets this will be preferable to a reduction in the basic rate. Surtax rates applicable to the higher brackets may then be reduced somewhat and the maximum rate cut to 65 per cent. If the yield objective is to be met, however, it is evident that liabilities for the $2,000–$50,000 range will have to remain substantially above prewar levels. Liabilities under the proposed schedule, as compared to liabilities under prewar, wartime, and present conditions, are shown in the table on page 50. The yield composition of our revenue program as a whole is summarized in the table below, together with the yield under the Revenue Acts of 1944 and 1945.

YIELD COMPOSITION FOR POSTWAR REVENUE STRUCTURE[1]

(In millions of dollars)

Type of tax	(1) Revenue Act of 1944	(2) Revenue Act of 1945	(3) Proposed plan	(4) Revenue change (2)—(3)
Personal income tax[2]	$17,000	$14,500	$13,000	−$1,500
Corporation income tax[3]	4,000	8,100	5,000	− 3,100
Excess profits tax	7,000			
Capital stock tax	400			
Estate and gift tax	500	500	1,000	+ 500
Excise taxes[4]:				
Tobacco	1,000	1,000	500	− 500
Liquor	2,000	2,000	1,000	− 1,000
Gasoline	500	500		− 500
Other[5]	2,600	2,400	1,000	− 1,400
Customs	600	600	600	
Miscellaneous receipts	400	400	400	
Pay-roll taxes[6]	2,500	2,500	2,500	
Total yield	$38,500	$32,500	$25,000	−$7,500

[1] All estimates are based on the common assumption of a gross national product before excises of 180 billion dollars. The corresponding levels of income payment are about 150 billion dollars.

[2] Includes normal and surtax for the first column.

[3] Profits of net income corporations prior to tax are estimated at 21 billion dollars for the first and second columns and 18 billion for the third column, where a 10 per cent tax on total profits plus a 30 per cent tax on retained earnings applies. For this case, dividends and retained corporation earnings after taxes of 5 billion dollars are estimated at 6.5 billion each.

[4] Statutory reductions of wartime rates are allowed for in the first column.

[5] Including jewelry, furs, and other luxury items.

[6] Excluding State unemployment taxes. A rate of 2 per cent on employers and employees each is assumed.

Further Considerations. Specific recommendations made in earlier pages will not be repeated here but certain additional points need be raised.[26]

(1) With greater reliance on the personal income tax, it will become increasingly important to close loopholes, particularly those arising from the community property provision and the option of filing separate returns on incomes which in effect belong to one family budget. The community property provision should be eliminated for income tax purposes and the filing of joint returns should be rendered mandatory. At the same time, some further exemption for working wives might be granted.

(2) The estate and gift taxes are estimated to provide a yield of 1 billion dollars. Before greater reliance can be placed on these revenue sources, a thorough recasting of present provisions will be required, including (a) closer coordination of both taxes so as to forestall estate tax evasion through gifts in anticipation of death, and (b) closing of such loopholes as are now offered through tax-free transfer of life estates. With these reforms accomplished, a substantial reduction in exemptions from the present $60,000 level to perhaps $10,000 might be considered and rates might be revised. Even then, however, the volume of estates and gifts will not be sufficiently large to provide a revenue source at all comparable to the personal or corporation income taxes.

(3) The drastic reduction of excise taxes which we propose will be of advantage only if it is passed on to the consumer through lower prices. Before excises are reduced, a commitment should be obtained from the manufacturers concerned that the repeal of these taxes will be followed promptly by a corresponding reduction in price.

(4) As a corollary to an improved Federal tax structure, a closer coordination between Federal, State, and local taxes must be achieved. The Federal Government may then collect certain taxes not provided for in this program for transmission to the States, or share some of its revenue sources with other governmental units. Coordination is not achieved if State and local governments find it necessary to rely on bad taxes which the Federal Government has discarded.[27] In particular, the recommended withdrawal of the Federal Government from the excise field would fail of its purpose if it were to be followed by a corresponding increase in State excises.

[26] See especially the proposals for carry-over of losses, p. 32; averaging of capital gains, p. 35; exemptions under the tax on retained corporate earnings, p. 45, and under the general corporation tax, p. 36; taxation of tax exempt securities, p. 37.

[27] For a discussion of State and local taxation, see pp. 101–30 of this pamphlet.

PUBLIC DEBT AND NATIONAL INCOME

by

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On November 30, 1945 the Federal debt reached 265 billion dollars, a magnitude without precedent in the history of this country. With the present interest rate structure, it involves an annual service charge of more than 5 billion dollars, an amount exceeded by only two peacetime Federal budgets until 1934.[1] It is quite understandable that a debt of this magnitude should cause considerable apprehension, and that a policy of repaying at least a part of it should be advocated so often.

DEBT AS AN INSTRUMENT OF FISCAL POLICY

It is true that our economy would be better off without so large a debt. But this does not mean that our position can be always improved by reducing the debt. The difficulty lies in the fact that the various components of our economy are interdependent, so that it is impossible to change one without affecting the others. In particular, the debt problem is more complex and difficult than it appears on the surface because changes in the debt exercise a powerful effect on the size of the national income.

Effects of Debt Changes on Income. In general, when the debt increases, that is, when the Government borrows and spends, national income is above the level where it otherwise would be; when the debt is reduced, that is when tax yields exceed expenditures, the income level is depressed. This rule does not necessarily hold. Should the Government borrow funds which would be spent on goods and services anyhow, and use them for expenditures which do not create income, such as a purchase of land, national income would fall rather than rise. Similarly, a repayment of the debt does not always depress national income; if taxes come from idle funds which would not be used anyhow, while the bondholders whose bonds are redeemed use the proceeds for consumption or investment, national income will indeed rise. But with all these qualifications

[1] In 1920 and 1921, respectively, 6.5 and 5.5 billion dollars were spent.

it is nevertheless true that as a general rule, Government borrowing and spending raise income, while taxation and repayment of the debt depress it.

Debt and Fiscal Policy. These attributes of budgetary deficits and surpluses, which were discussed at greater length earlier in this pamphlet,[2] make them a powerful—probably the most powerful—instrument of fiscal policy. Now that the war is over, our economic policy should be directed toward achieving a high and stable level of employment and a growing national income. But there is increasing agreement among economists and others that stability will not maintain itself automatically, and that active Government intervention will be needed to eliminate the swings between prosperity and depression which characterized our economy in the past. This does not yet mean that changing the magnitude of the debt will be the only or even the necessary instrument of fiscal policy. A comprehensive program embodying a number of measures will be required.[3] But it is very unlikely that it will be possible to balance the budget in periods when private investment is low; indeed a deficit will probably be required to prevent a slump. Similarly, when inflation threatens, a budget surplus should be accumulated and a part of the debt repaid. But trying to repay the debt at other times, and particularly when considerable unemployment already exists, makes little sense: income will suffer a greater proportional decline than the debt, and the debt "burden" of the economy will actually rise.

If times of low business activity are sufficiently compensated by years of high private expenditures, Government deficits incurred during the former periods will be balanced by surpluses created during the latter. Roughly speaking, the debt will then fluctuate around the same average level; over a period of time (without wars) its magnitude will not rise. But what if this will not be the case? What if in spite of all our efforts it will be impossible to accumulate sufficient surpluses to offset the deficits —what kind of a debt problem shall we have to face then?

Secular Expansion of the Debt. We are considering here a situation in which the *average* level of private expenditures, for some reason or other, is not sufficient to maintain a stable level of full employment, and in which Government borrowing is found necessary to achieve this goal.

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[2] See pp. 1–21.

[3] For instance, tax incentives offered to private business to stabilize investment; various methods for encouraging consumption; expanded social security; changes in the tax structure, and so on. This is a field in which much work and exploration remains to be done.

Whether such a situation will actually arise is a different subject; it is not discussed here.[4] Government borrowing, however, is not synonymous with "make-work projects." There are many fields, such as urban redevelopment, public health and education, development of our resources, scientific research, and many others, in which Government expenditures are extremely useful, aside from employment aspects. That they create jobs and raise national income is so much the better. I believe that our actual experience during this war has well demonstrated that with sufficient Government expenditures national income can be raised to the highest level permitted by our productive capacity. This is now recognized by many competent authorities, including some opponents of Government borrowing. The latter object to the pursuit of such a policy on other grounds. From a political point of view, they argue, continuous Government borrowing will involve increasing regimentation and eventually destroy our democratic institutions; and from an economic point of view, it will lead to an ever mounting debt which, among other things, will necessitate higher and higher taxes with their well-known depressive effects.

The political aspects of Government borrowing are not discussed in this paper. In passing one can briefly remark that even in our most prosperous years, such as 1929, our cities were blighted by slums; that large areas of our country, particularly in the Southeast, have never had anything even approaching a satisfactory minimum standard of health and education, and that finally private business has not been able to prevent the waste of our natural resources. Democracy will hardly be endangered by projects such as the TVA which, moreover, create numerous opportunities for private investment; or by healthier cities and better schools. As we can learn from the experience of other countries, it is chronic depression and unemployment that endanger democracy.

Importance of Relative Magnitudes. From an economic point of view, the existence and *growth* of a large public debt create a number of problems, not only in taxation, but in the fields of monetary and banking policy as well. Some of them are discussed elsewhere in this pamphlet.[5] But in all of them (as in most other problems in economics and elsewhere), absolute magnitudes taken by themselves have little meaning. What matters is the ratio of the debt to other economic variables, such as

[4] See Everett E. Hagen, "Output and Demand after the War," in *Jobs, Production, and Living Standards*, the first pamphlet of this series.

[5] See Roland I. Robinson, "Monetary Aspects of National Debt Policy," pp. 69–83.

taxable income, the resources of the banking system, the volume of private securities outstanding, and so on. Most important in general is the relation between the debt and the economic size, so to speak, of the country. Is the 265 billion dollar debt shouldered by a country of the size of the United States or of Nicaragua? The United States today, or 100 years ago? For purposes of analysis, it is necessary to express this economic size by means of some kind of an index, such as the national income.[6]

The first economic variable which should be studied in connection with the debt problem is the ratio of the debt to national income. It gives us a good idea of the magnitude of the whole debt problem and is needed for the study of any of its aspects. This ratio also allows us to compute the ratio of interest charges to the national income, or in other words the average tax rate which must be imposed to service the debt—a tax rate which equals the ratio of the debt to income, multiplied by the interest rate on the debt.

The behavior of these two variables—the ratio of the debt to income, and the average tax rate—constitutes the main topic of this paper. In addition, some remarks about the effects of a growing debt on the distribution of wealth and income are made in the closing section.

RELATION BETWEEN DEBT AND NATIONAL INCOME

Let us assume that the Government borrows in periods when private expenditures are not sufficient to maintain full employment, and that the deficits so incurred are not fully repaid. Under these conditions, the debt will of course grow. But its ratio to national income will increase or not, depending on whether the debt does or does not grow more rapidly than income.

When Income Remains Constant. If our fiscal and other policies are pursued in such a manner as to result in a constant or even falling income, the ratio of the debt to income will rise. The ratio of interest charges to income will rise as well (unless the interest rate falls at the same time), so that higher and higher tax *rates* will be needed to service the debt. A numerical example would show, however, that under fairly reasonable circumstances, the tax rate will rise quite slowly, so that after some 25 or 50 years it will still be within manageable limits. But the fact of a rising tax rate remains. It is questionable whether the public will agree

[6] I am using the term "national income" here in a broad rather than technical sense. Gross national product or some variation of it can be used just as well if not better.

to pay ever higher tax rates for the sole purpose of servicing the debt and its repudiation may become a serious issue.

Growing Income. The situation is markedly different if we succeed in achieving a growing national income. As in the preceding case the debt will grow. Its ratio to income, however, will depend on the rate of growth of income. The more rapidly income grows, the smaller will be this ratio. If the Government borrows *on the average* a certain percentage of national income, and if income grows at some constant percentage rate (such as 2 or 3 per cent) per year, then it can be demonstrated that the ratio of debt to income will gradually approach the expression

$$(1) \qquad \frac{\textit{percentage of income borrowed}}{\textit{rate of growth of income}}$$

The ratio of interest charges to income, or the average tax rate, equals the product of the debt and the interest rate, divided by income. This of course equals the ratio of the debt to income, multiplied by the interest rate. Since the ratio of debt to income approaches expression (1) the average tax rate will approach

$$(2) \qquad \frac{\textit{percentage of income borrowed}}{\textit{rate of growth of income}} \times \textit{interest rate on the debt}$$

The derivation of the expression (1) itself requires some mathematics, but perhaps it can be somewhat clarified by a non-mathematical explanation.[7] The nature of its numerator is obvious—if the deficits are large in relation to income, the ratio of the debt to income will be also large. The nature of the denominator is less easily explained. If national income grows at a rapid rate, its magnitude in the past will be small as compared with that of today. The debt is simply an accumulation of past deficits each of which, according to our assumption, constituted a constant percentage of income at the time when the deficit was incurred. Therefore, if income in the past was relatively small, the deficits were small, and the present debt must be small as compared with present national income. That is the reason why the rate of growth of income appears in the denominator of expression (1).

We thus see that *the greater is the rate of growth of income, the lower will be the ratio of debt and of interest charges to income. The essence of the debt problem is a problem of an expanding national income.*

[7] For a more complete treatment of the problem and for an actual derivation of the formulas see my article "The 'Burden' of the Debt and the National Income," *American Economic Review*, December 1944, pp. 798–827.

Numerical Magnitudes. It will be interesting to see what numerical magnitudes are involved here. They will depend on our assumptions regarding the rate of growth of income, the extent of Government borrowing, and the interest rate paid on the debt.

Let the interest rate on the debt be 2 per cent. In view of our past history (see p. 60) it is not unreasonable to suppose that, with proper fiscal and other policies, national income can grow at 2 or 3 per cent per annum for some time to come. But how much will the Government have to borrow? This will depend on the magnitude of the community's savings and the extent to which these savings are not absorbed by private investment. Over the period 1879–1941 our savings averaged about 12 per cent of national income.[8] This percentage rises in prosperity and falls during depression. What it will be in the future is very hard to tell. Let us suppose that it will remain 12 per cent. What part of this 12 per cent will have to be absorbed by the Government? A pure guess will have to be ventured. Suppose the Government takes one-half of total savings, *i.e.* 6 per cent of the national income. The 6 per cent is taken as the *average* percentage. When private expenditures are high, borrowing will stop entirely, and a part of the debt may be repaid; when private expenditures are low, a larger fraction than the 6 per cent will be borrowed. This 6 per cent represents quite a pessimistic assumption. It has been estimated that, with a high level of employment, a 140 billion dollar national income can be expected soon after the war. We are thinking then about an average deficit of some 8 to 10 billion dollars in early postwar years—a much larger magnitude than is assumed in most current discussions. Anyhow, all these numerical magnitudes are given solely as illustrations and do not represent an attempt to forecast. The derivations of the formulas on page 57 do not depend on any particular numerical magnitudes; the reader can make his own numerical examples and obtain similar results.

When our numerical assumptions are inserted into expressions (1) and (2), we find that if the rate of growth equals 2 per cent, the debt will eventually be *three* times the size of national income and the interest charges will constitute 6 per cent of the national income. If we succeed in achieving a 3 per cent growth of income, the ratio of debt to income

[8] This estimate of savings is based on the ratio of net capital formation to national income. Sources: Simon Kuznets, *National Product Since 1869*, National Bureau of Economic Research (mimeographed, 1945) p. II–89, and the *Survey of Current Business*, May 1942 and April 1944.

will approach *two*, and interest charges will constitute only 4 per cent of the national income.

For practical purposes it is more interesting to know, not what these ratios will eventually become, but rather how they will behave in the next 25 or 50 years. Such a calculation is presented in the table below.

THE RATIO OF THE DEBT AND OF INTEREST CHARGES TO NATIONAL INCOME

Original debt = $300 billion
Original income = $140 billion
Deficit = 6 per cent of national income
Interest rate on the debt = 2 per cent

Years	Ratio of debt to income		Interest charges as percentage of income	
	Income increasing at 3 per cent	Income increasing at 2 per cent	Income increasing at 3 per cent	Income increasing at 2 per cent
0	2.14	2.14	4.28	4.28
1	2.14	2.16	4.28	4.32
2	2.13	2.18	4.26	4.36
3	2.13	2.19	4.26	4.38
4	2.13	2.21	4.26	4.42
5	2.12	2.22	4.24	4.44
10	2.11	2.30	4.22	4.60
15	2.09	2.36	4.18	4.72
20	2.08	2.42	4.16	4.84
25	2.07	2.48	4.14	4.96
30	2.06	2.53	4.12	5.06
35	2.05	2.57	4.10	5.14
40	2.04	2.61	4.08	5.22
45	2.04	2.65	4.08	5.30
50	2.03	2.68	4.06	5.36

This table is based on the assumption that we start with a 140 billion dollar income and a 300 billion debt; that thereafter 6 per cent of national income is borrowed each year; and that the interest rate on the debt is 2 per cent. As expected, a 3 per cent rate of growth produces more favorable results than a 2 per cent rate. In neither case, however, are the results disturbing. The economy will hardly be impeded from effective functioning by a debt service equal to some 4 or 6 per cent of its national income.

Implications for Fiscal Policy. The examination of the case when income increases at 3 per cent per year brings out a very interesting point. The table shows that the ratio of the debt (and also of interest charges) to

income *actually declines in spite of the fact that the Government continues to borrow*, and that the debt continues to rise. This fact has important implications for fiscal policy. It shows that the repayment of the debt is *not* the only available method of reducing the debt burden. This aim can also be achieved, and in a much safer way, by promoting a more rapid growth of income. That the latter is desirable of itself is evident.

HOW CAN A RAPIDLY RISING INCOME BE ACHIEVED?

It is important to make a clear distinction here between the growth of productive capacity and the actual growth of national income. Too often it is assumed that an increase in productive capacity automatically creates an increase in income—an assumption which is completely unwarranted by our experience.

Productive Capacity and Realized Income. Actually, the real productive powers of an economy establish the *limit* beyond which real national income, at any given time, cannot go, but whether or not it will *reach* this limit depends on the volume of monetary expenditures and the level of prices. Theoretically speaking, it is possible to have a rising real income with constant or even falling monetary expenditures provided a continuously falling price level can be assumed. It is very unlikely, however, that in our economy such a price policy can be pursued without heavy unemployment. Its success would require much greater price flexibility than can be realistically relied upon. And even if we did achieve falling prices without unemployment, it is very doubtful whether such a development would be desirable in the first place in view of the large magnitude of existing public and private fixed obligations whose burden would accordingly rise. Similarly, it would be just as well to avoid rising prices, even though there are some reasons to think that a slowly rising price level might be advantageous from the point of view of stimulating expenditures on investment and consumption. The selection of the proper price policy is too complex a subject to be discussed here. We shall assume that it is desirable and possible to achieve a constant price level. If then a rising national income is desired there must be both rising productive capacity *and a rising volume of expenditures*. To the extent that a stated part of these expenditures is undertaken by the Government out of borrowed funds, the amount borrowed must increase as well.

Over the period 1879–1941 real national income in the United States grew at an average annual rate of some 3.3 per cent.[9] Compared with

[9] See Table V, p. 818, and App. B, pp. 826–27 in my paper cited in note 7, p. 57.

other countries, this rate was relatively high, but not exceptional. It was due to accumulation of capital equipment, technological improvements, growth of the labor force, and the discovery of new resources. It is of course impossible to say whether much reliance can be placed on resources still to be discovered. Improved technological methods, however, permit new applications of known resources and thus may have the same effect as an actual discovery of new ones. But the rate of growth of the population has been slackening ever since about 1850, and the various estimates of future population growth predict a practically stationary if not declining population by 1980.

Need for Technological Progress. We have to recognize that the main, and later on the only, propelling force in the economy will be technological improvements which should result in an ever rising productivity per man-hour. Only technological improvements can offset the diminishing productivity of investment which would be caused by a stationary labor force and absence of new natural resources. Whether new inventions will be forthcoming in sufficient numbers and whether they will be applied fast enough is hard to tell; one often gets the impression that the scientific age is just beginning, and that once monetary problems are solved, technological advance will proceed at a tremendous rate. The recent discovery of the use of the atomic power certainly opens up most spectacular possibilities. On the other hand, one also cannot escape the impression that certain institutional developments, particularly the growth of monopolies, are not conducive to rapid technological change, and that the mere assurance of an adequate effective demand will not solve the whole problem. A thorough reform of the process of industrial research and particularly of the application of inventions may be needed as well.

According to our assumption the Government absorbs a part of the community's savings. The community must decide how these savings should be allocated among the various possible uses, and in particular what part (if not all of them) should be directed toward increasing our productive capacity. But whether a given expenditure is productive in the present sense or not has nothing to do with such questions as whether or not the project undertaken makes a direct contribution to the Federal Treasury or is self-liquidating. What matters is the effect of the project on the productive capacity of the country as a whole. It is well known that education and training are usually not self-sustaining financially. There are few, if any, other expenditures, however, which are as im-

portant for the growth of our productive capacity. The same can be said about industrial and scientific research. In 1940 total private and public expenditures on industrial and scientific research in the United States was less than 500 million dollars. What would be the result if this amount were doubled, tripled, or multiplied ten times? Indeed, large-scale Government participation in industrial and scientific research could become one of the major propelling forces in the economy.[10]

But it must again be emphasized that technological progress and other developments which raise our productive capacity make it *possible* for income to rise. They do not *assure* an actual rise in income. If they are to result in a growing income rather than in greater unemployment, monetary expenditures must grow as well.[11]

Cyclical Drop in Income. We have established that the debt "burden" will remain within reasonable limits if national income grows fast enough. But suppose that in spite of all our efforts a depression takes place and national income falls. Since interest on debt is a fixed charge, will not the economy be crushed under the tax load, which is suddenly increased relative to income?

We are familiar with a somewhat similar problem in corporate finance. So long as everything goes well, a corporation meets its fixed obligations. But let a depression come, and the corporation fails because of its inability to pay interest and to redeem its currently maturing debt. This is why heavy reliance on borrowing is not recommended in corporate finance.

The corporation finds itself in this difficult position because its credit resources are limited and also because it can exercise relatively little control over its sales. The Federal Government, however, through the Federal Reserve System, possesses credit powers which are practically unlimited. By means of fiscal policy it *can* raise national income. The

[10] Expenditures on industrial research made by private business in 1940 amounted to about 300 million dollars. To this should be added some 50 million spent by universities; the latter figure includes their expenditures on research in social sciences as well. The figures for Federal expenditures on scientific and industrial research in 1940 are not available; in 1938 they amounted to some 52 million dollars, the largest share going to the Department of Agriculture. See U. S. National Resources Committee, *Research—A National Resource*, Vol. I; U. S. National Resources Planning Board, *Research—A National Resource*, Vol. II.

Since the beginning of the war, Federal expenditures on research, particularly in the fields connected with the war effort, have shown a great increase. Several bills have been recently introduced in Congress to obtain Federal aid for scientific research in peace time. The amounts suggested by them are rather small, but may prove to be a good beginning.

[11] This does not mean that hours worked per week should not be reduced if the community prefers more leisure to a higher income. The discussion in the text refers to an increase in productive capacity achieved in spite of a possible reduction in hours worked.

question discussed here appears so difficult only because of an implicit assumption that the Federal budget must be always balanced, or at least that service charges on the debt must always be raised by taxation. Neither assumption need hold true. During a depression the budget should not be balanced: the deficit is needed to bring the economy out of the depression. In general it is very hard to allocate revenues to individual expenditure items and thus to determine which expenditures are financed by borrowing and which are tax financed. So it is impossible to say just when debt charges are paid from borrowed funds. But the answer to the problem is not affected by this difficulty: until a high level of employment is reached, service charges as well as other expenditures should be financed wholly or partly from borrowed funds.

Declining Rate of Growth. A more difficult problem arises if the *secular* percentage rate of growth declines. If this development is not caused by a shortage of productive capacity, but only by the failure of monetary expenditures to expand at the proper rate, the remedy is still relatively simple (at least in theory): larger expenditures (both public and private) should be made. Failure to do so simply means that the productive powers of the economy go unused, creating unemployed men and resources. But if it is the productive powers that fail to expand at a sufficiently rapid rate, the situation is more serious. It means that technological progress has not been sufficiently rapid to offset the limitations imposed on income growth by a stationary population and existing natural resources. Therefore further additions to our productive equipment increase its capacity at a diminishing rate.

In general it is hard to visualize national income (or any other economic variable) as growing *forever* at a constant percentage rate,[12] even though it has grown at some 3.3 per cent per year in the past 70 years or so. However hard we try, and however much attention we give to technological progress, it is probable that the limitation of our human and natural resources will eventually force output to grow at a declining percentage rate.[13] The mere fact, however, that the rate of growth declines is not so important: as far as the debt burden is concerned, it is not the rise or fall of the rate of growth that matters, but the actual magnitude of the rate of growth at any given time. So long as the rate,

[12] For instance, one cent invested at 2 per cent 1945 years ago would now amount to something like 783,000 billion dollars.

[13] Our present ideas about the rates of growth possible in the future may have to be radically revised if a new technological revolution is brought about by the use of atomic power.

even though falling, remains above, say 2 per cent, the ratio of debt to income will be smaller than it would be if the rate were always fixed at 2 per cent. So for quite a number of years a slowly declining rate of growth of income need not create any difficulties as far as the debt is concerned.[14]

EFFECTS OF A GROWING DEBT ON DISTRIBUTION OF WEALTH AND INCOME

So far we have been mainly concerned with the relationship between the public debt and the level of income. Now we shall consider the possible effects that the growth of the debt may have on the distribution of income.

The Argument. It is known that the ownership of the debt is not distributed equally among the various income groups. It is concentrated (directly or through banks and other corporations) in the hands of the upper income groups, who therefore receive a large share of interest payments on the debt. Hence an argument is often made that the growth of the debt directs more income to the upper income groups, and thus creates a greater inequality of income and wealth. The objections to such a development on political and welfare grounds have been made for a long time and are well known. From a strictly economic point of view it may be added that since upper income groups save a relatively large share of their incomes, a greater inequality of income distribution increases total savings made out of any given national income. In a well-developed country like the United States where fiscal policy has not yet been sufficiently accepted as an important method for maintaining full employment, larger savings can easily result in idle hoards and lead to unemployment.

Comparison between Public and Private Investment. Whether or not Government borrowing results in a greater concentration of income and wealth is by its very nature a question of comparison. For practical purposes the most meaningful comparison should be made not with some ideal income (and wealth) distribution, or with distribution of today or some other date, but rather with the distribution that would result from some alternative economic policies. The problem can be stated in the following form: the community desires to save a part of its income. Everyone will agree that in order to maintain a high level of income and employment these savings must be invested. The investment can be done either wholly by private business or in part by private business

[14] The possibility of reducing the interest rate on the debt should also be kept in mind.

and in part by the Government. Will the second method necessarily result in a greater concentration of wealth and income than the first?

For a variety of reasons some individuals receive larger income than others; and those who receive relatively high income usually save a substantial part. If all investment is done privately, the savers acquire, directly or through the purchase of securities, houses, factories, stores, banks, and other forms of private wealth. If part of the investment is undertaken by the Government, some savers acquire Government bonds. But each saver can use a given dollar of his savings to purchase *either* a piece of private wealth *or* a Government bond. He cannot use *the same* dollar first to buy a private security and then again a Government bond. Therefore as far as *primary* effects of Government borrowing are concerned, the distribution of wealth will not be affected by the fact that part of the investment is done by the Government.

There are secondary effects. They depend on the rate of return which the saver can obtain from the ownership of private wealth as compared with that of Government bonds, and on the source of his income.

Average Rate of Return. The average return on the Federal debt is at present about 2 per cent. The return from private investment is of course subject to very great variations, ranging from 100 and more per cent down to a complete loss of the principal. The estimate of its average magnitude is quite a task, both statistically and conceptually, but for our purposes a very rough calculation will suffice.

Over the period 1919–41 the percentage of national income derived from the ownership of private wealth was somewhere around 16–20 per cent.[15] It also appears that, speaking very roughly, national income

[15] Property income consists of dividends, interest, undistributed corporate profits, rents, royalties, and a part of entrepreneurial income, *i. e.*, income derived by owners of unincorporated businesses. To obtain private property income, *i. e.*, income derived from ownership of private wealth, interest received from the ownership of Government debt must of course be excluded. The most difficult problem is created by the presence of entrepreneurial income, because it is very difficult to decide what part of it should be treated as compensation for personal services, and what part as property income. If all of it (over the period 1919–41) is treated as compensation for personal services, private property income will constitute only some 14 per cent of national income. If on the other hand all of it is added to other forms of private property income, the combined total will constitute some 31 per cent of national income. There are reasons to believe that the major part of entrepreneurial income represents compensation for personal services. If we assume, as a rough guess, that only one-fourth of it is property income, the total private property income will constitute some 18 per cent of national income. This is the basis for the 16–20 per cent estimate used in the text.

Sources: U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce: National income and its components during 1919–28, unpublished materials prepared by the National Income Unit; the same during 1929–41, *Survey of Current Business;* interest on Government debt during 1919–41, unpublished materials described above.

over the same period was on the average some 25–30 per cent of private wealth (excluding stocks in the hands of consumers). It therefore follows that the average rate of return from privately owned wealth was somewhere in the vicinity of 4–6 per cent.[16]

Crude as this estimate is, it shows that on the average public investment pays a lower rate of return per dollar invested than private investment. Nor is there anything strange about this result. The investment in private wealth by its very nature involves considerably more risk than the ownership of Federal securities. One should therefore expect that private investment should offer a higher rate of return. But as far as the present discussion is concerned, public investment will result in a smaller concentration of wealth and income than private investment does.

Source of Property Income. Finally, we should discuss the source of property income derived from private wealth or from the ownership of Government bonds; in other words, we want to inquire as to who *pays* the property income.

This statement of the problem sounds rather unusual, because we do not ordinarily think of property income in this manner. An exception is almost always made, however, for that part of property income which is derived from Government bonds. Here it is recognized that the income is taken away from the taxpayers and given to the bondholders. The

[16] This is a very rough approximation. Estimates of national wealth are quite unreliable not only due to statistical difficulties, but also because of the vagueness of the concept itself. The figures given in the text are based on estimates made by the National Industrial Conference Board for the period 1922–38 and published in the *Conference Board Studies in Enterprise and Social Progress* (1939), p. 60, and in the *Economic Almanac, 1944–45*, p. 64. To obtain the figures for private wealth from which a return can be derived, real property and improvements exempt from taxation, which belong to Federal, State and local governments and to non-profit organizations, as well as stocks of goods in the hands of consumers, were deducted from the totals. Several other items might have been excluded, but they were not sufficiently large to affect the results.

The estimates for the periods 1919–21 and 1939–41 were based on those for the years 1922 and 1938 adjusted for net private capital formation which took place prior to 1922 and after 1937 respectively. The figures for this capital formation were obtained from Mary S. Painter "Estimates of Gross National Product, 1919–28," *Federal Reserve Bulletin*, September 1945, pp. 872–73; Solomon Fabricant, *Capital Consumption and Adjustment* (1938), pp. 147 and 160 and the *Survey of Current Business*, May 1942, April 1944, and February 1945. While this method brought some inconsistency into the data, the whole procedure is so rough that a difference of a few billions would be of hardly any significance. The actual ratio of national income to private wealth obtained was 27 per cent.

It must again be emphasized that the results should not be interpreted as an exact measurement of the return from private investment. That task would require such serious adjustments of the original data (to account for capital gains and losses, for instance) as to be entirely beyond the scope of this paper. I do not think, however, that these adjustments would change the estimates to such an extent as to reverse the basic conclusions reached in the text.

idea that a domestically held debt is not a burden because "we owe it to ourselves" has been vigorously objected to. The transfer of income from taxpayers to bondholders is usually looked upon as a kind of an "evil" which should always be minimized. As a matter of fact, the main part of this paper was devoted to showing that, with growing national income, this "evil" will not be large. Actually, there is little difference, from this point of view, between income receipts from the public debt and income derived from the ownership of private wealth.[17]

In one sense, both private property income and interest on Government bonds, as well as wages, salaries, and all other forms of income, represent a cost of production—the cost of achieving a given level of national income or output. In another and more hypothetical sense, all these elements of income are "burdens": if the same level of total national income could somehow be achieved without the payment of a part of it to bondholders, or to wage-earners, or to private property owners, more would be left for the rest of the community. Which of these two approaches is taken depends on one's views. It appears to me that under our institutional conditions it is necessary to pay all these elements of income, though not invariably in the same proportions, in order to produce the required volume of goods and services. Very often, however, one hears an argument, stated or implied, that the recipients of all forms of income, with the exception of that from Government bonds, perform some productive services, while the owners of Government bonds somehow manage to get paid for doing nothing. It is further explained that owners of private assets take risks and that their return depends on the success of their enterprises; owners of the public debt, on the other hand, take no, or very little, risk and are paid a fixed return.[18]

As was shown on pages 65–66, holders of public debt receive a much smaller average return than private property owners. If this return is regarded as too high compared with the services rendered by them, this may be a good argument for reducing it, or even abolishing it altogether if, under our institutional conditions, the Government finds it both feasible and desirable to obtain funds interest free. But today this is not the case, and so long as the Government has to pay interest on borrowed funds, there is no reason to place this kind of income in a special "un-

[17] The question whether the payment of interest on the debt creates more or less friction than the transfer of private property income is not discussed here.

[18] See for instance B. U. Ratchford, "The Burden of a Domestic Debt," *American Economic Review*, September 1942, pp. 451–67.

productive" class, and to treat it as a "burden," while voicing no objections to other forms of property income. One is just as much a "cost" or a "burden" as the other.

Let us return to the source of property income. Private property income comes from proceeds from the sale of goods and services in the market. These proceeds are paid out to factors of production in the form of wages and salaries on the one hand, and various kinds of private property income on the other. The magnitude of property income relative to the total depends on the amount of capital used relative to labor, on the intensity of competition, and other factors. There do not appear to be any *a priori* grounds for thinking that the goods and services purchased by the lower income groups generate proportionally more or less property income than those sold to the upper income groups. So in the absence of evidence to the contrary, we can think of private property income as being generated by a sort of cost or tax borne by everyone in rough proportion to his expenditures.

The origin of the property income derived from Government bonds depends on the kind of taxes imposed for servicing the debt. If the debt is serviced by means of a sales tax, there will be little difference between the sources of the two kinds of property income. But if, as is more likely to be the case, the debt is serviced by means of a progressive income tax, then the interest charges on the public debt will fall less heavily on the lower income groups and more heavily on the upper income groups than would be the case with private property income. From a point of view of achieving a more nearly equal distribution of income and wealth, this attribute of public investment represents a considerable advantage.

SUMMARY

It is hoped that this paper has shown that:

1. With a growing national income, the ratio of the public debt to income will remain relatively small.

2. Similarly, the ratio of interest charges to income will be within manageable limits.

3. Public investment is likely to result in less concentration of income and wealth than private investment would because:

   (a) The Government pays a smaller rate of return per dollar invested.

   (b) The Government obtains a large share of its revenue by means of progressive income taxes.

MONETARY ASPECTS OF NATIONAL DEBT POLICY

by

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The primary objective of postwar management of the public debt must be economic stability, but this in turn, if it is to be achieved, requires monetary stability. The wartime expansion of the Federal debt has already caused a vast increase in money holdings and has weakened the resistance of the economy to further monetary expansion. If large postwar demands for capital outlays and deferred consumption should create the initial conditions of inflation, the money supply, already large, could under present conditions expand further and so prevent the realization of even approximate monetary stability.

There are indeed other objectives of debt management than monetary stability. The budgetary problems of the Federal Government would be simplified by a low debt service charge. Other considerations permitting, it would be desirable to avoid instability in the market value of Government securities. The large debt should not be permitted to create a new or expanded rentier class. But all of these objectives are subsidiary; if conflicts between objectives should emerge, they must be resolved in favor of monetary stability.

Discussion of the effect of the national debt and its management on monetary stability is focused on the long-range possibility of inflation, not because inflation is more likely than deflation, but because it is the powers of the credit authorities to resist further credit expansion that have been impaired by the wartime increase in the Federal debt. Unavoidable inertia toward modifying the debt structure and the overhang of contractual rights and obligations probably means that the structure of the debt cannot be modified quickly enough to meet transitional postwar inflation should it develop. The wartime tax structure and such direct controls as are still in effect are much more suitable weapons for that purpose. For the longer term, however, these instruments will be much less potent and unless the problems of debt management are met, the possibility of unwarranted monetary expansion will persist.

If a general inflationary problem in the postwar should arise from a steady excess of business and consumer capital expenditures over savings, the appropriate offset would be a budget surplus which would be used to retire public debt held in the banking system and therefore to limit the growth or possibly even contract the volume of deposits and currency. But if inflationary developments should come rapidly, the retirement of debt with budgetary surpluses would be too slow to be an effective control. The direct controls which have been instrumental in preventing excessive use of monetary holdings during the war could not and should not be revived at such a time. It is to prepare for the contingency of marked inflation in the absence of direct controls that there is advanced at the end of this paper a series of suggestions for stabilizing Government security ownership and revitalizing the quantitative credit controls.

MONETARY EXPANSION DURING THE WAR

The wartime expansion of the Federal debt has been responsible for a very large growth in currency and deposits. Great efforts have been made in the War Loan drives and through pay-roll deduction plans to sell securities to individuals and corporations and other nonbank buyers. But what could not be sold this way had to be sold to the banks. Either directly or indirectly new funds so created passed into the hands of private owners and were held as demand deposits, savings accounts, or currency. In a very broad sense, the proportion of the Federal debt sold to the banking system is an index of the proportion of wartime savings in money form. The distribution of Federal security ownership and of its wartime increase is shown in the accompanying table.

Almost half of the United States Government securities held outside of the Federal Government are owned by the banking system and about the same proportion of the increase in net Federal debt since the end of 1939 was absorbed by the banking system. A little over one-quarter of the increase has been taken by individuals and about one-seventh by corporations (excluding banks and insurance companies). Insurance companies and mutual savings banks have accounted for about one-ninth.

Some expansion of deposits and currency would, of course, have been appropriate to the wartime growth of production and income. Expanded production and income call for larger working balances. Even a more than proportionate growth in cash balances is justified. In the first place the uncertainties of war are legitimate grounds for larger precautionary

balances. Furthermore, in the case of business concerns the inability to make capital expenditures as great as depreciation allowances and other business reserves has tended to build up cash balances.

OWNERSHIP OF FEDERAL DEBT

Holders of debt	Dec. 31, 1939 (In billions of dollars)	Sept. 30, 1945 (In billions of dollars)	Percentage distribution of debt held outside Government	
			Total, Sept. 30, 1945	Increase, Dec. 31, 1939 to Sept. 30, 1945
Total Federal debt outstanding	**47.1**	**260.2**		
Held by U. S. Government agencies and trust funds	**6.5**	**26.6**		
Held outside Federal Government	**40.6**	**233.5**	**100.0**	**100.0**
Commercial and Federal Reserve Banks	18.4	106.8	45.7	45.8
Individuals	9.8	58.5	25.1	25.3
Corporations	2.7	30.0	12.9	14.2
Insurance companies and mutual savings banks	9.4	33.2	14.2	12.3
Other	0.3	5.0	2.1	2.4

SOURCE.—Published regularly in the *Treasury Bulletin;* corporation includes "other associations," dealers' brokers, and foreigners. Individuals include unincorporated business. The "other" category consists mainly of State and local governments.

But the creation of new money has very substantially exceeded the growth of production and national income and some further expansion seems unavoidable. The present (late–1945) levels of demand deposits and currency are more than three and one-half times prewar levels, and total liquid assets have grown by the same proportion. Over the same period, gross national product at current prices and income payments to individuals have both expanded about two and one-half times, as is shown in the accompanying table.

In the postwar period, presumably, the need for idle or precautionary balances will not be as great as it is now, since gross national product and income payments presumably will recede moderately from wartime levels even if full employment is maintained. In other words, present money levels are probably adequate, possibly excessive, for a number of

RELATIVE MONETARY EXPANSION
(1935–1939 = 100)

Year (June dates for liquid assets, deposits, and currency)	Gross National Product	Income payments	Total liquid assets of individuals and corporations	Deposits and currency	Demand deposits and currency
1935–1939.....	100	100	100	100	100
1939.	108	105	108	108	112
1940...	119	114	116	118	130
1941.	147	138	128	131	155
1942.....	185	175	154	143	183
1943..... ...	230	213	226	187	261
1944.....	243	233	293	218	304
1945 (Est.)....	242	245	357	260	354

years to come. The problem then is that of so managing the public debt that it does not lead to further monetary expansion.

INFLATIONARY POTENTIAL OF PRESENT DEBT STRUCTURE

Without further growth, the public debt could be the basis for considerable further expansion of the money supply. The selling of Government securities held outside the banking system to banks (including redemption of nonmarketable issues) and a growth of private indebtedness to banks would occasion such expansion. And banks would be able to expand credit in these circumstances because they have virtually uncurbed access to reserve funds.

Easy Access of Banks to Reserves. A necessary condition for bank credit expansion is the access of banks to additional reserves. With the present large volume of short-term Federal debt owned by the banks, it is extremely difficult, if not impossible, for credit authorities to use quantitative measures of monetary control to limit the access of banks to additional reserve funds. If banks seek to replenish their reserves by selling Government securities or by letting them mature without replacement, the banking system as a whole will secure an increase in reserve holdings, unless either one of two conditions is met. The first condition would be the existence in the Federal Treasury of adequate budget surpluses to retire debt equivalent in amount to the reduction of bank holdings. The second condition would be the presence of nonbank buyers

for an amount equivalent to the reduction in bank holdings. But bank holdings, particularly of short-term securities, are so large that the amounts sold by the banking system could exceed any conceivable budget surplus. And the discipline of market price decline and capital loss is not very effective because banks can depend on maturing issues to supply any conceivable need for reserve funds. At present, commercial banks have more than 25 billion dollars of securities maturing within one year. Furthermore, in a period of emerging inflation it is not likely that nonbank buyers would appear in sufficient numbers, even with a considerable rise in interest rates. Consequently, net sales of securities by the commercial banking system would probably mean net purchases of securities by the Federal Reserve System and therefore an expansion of member bank reserve balances.

With reserves freely available about the only limitations on credit expansion by the banks would be either that demand was lacking or that the banks were reluctant to expand credit because of a shrinking ratio of capital to deposits. Even though the reliance of corporations upon bank credit has shown a secular tendency to decline, a private demand for bank credit could emerge under inflationary circumstances. We have no experience which would warrant reliance upon decreasing capital-deposit ratios to limit bank lending. Without an effective control of the access of banks to reserves, further credit inflation would be possible.

Insecure Ownership of Government Securities. Further monetary expansion could occur if nonbank holders of short-term or redeemable issues were to show a general disposition to convert their holdings into cash. This would force the Government into further financing through the banks. If there is reasonable economic stability, this threat may not materialize; but inflation would change the picture. Fixed dollar obligations are not attractive when the price level is rising. And, if a price decline in Government securities or difficulties in refunding were given much publicity, the holders of savings bonds might redeem them in large volume, even though these holders were not directly affected by the fall in price of marketable securities.

Critical Matter Is Not Interest Rates Alone. The critical issue is not solely or even primarily, as it is sometimes argued, whether interest rates on the public debt should be stabilized or whether there should be flexibility in market rates: the structure of the debt itself—that is, the types of securities that evidence the debt—is equally important. With the present debt structure, dominated by short-term marketable debt and

by nonmarketable issues redeemable virtually on demand, neither a stable nor a flexible interest rate policy will establish the conditions of monetary stability.

The policy of maintaining stability of interest rates and prices of Government securities makes virtually the whole public debt equivalent to money. It assures individual holders that they can convert their securities into money without appreciable capital loss. It would be hazardous to base monetary policy on the rather tenuous hope that this right would not be used. Banks, particularly, would be left as free agents since there would be no effective central control of their reserves. By selling Government securities, they could replenish reserves and finance private credit expansion.

Although stability of interest rates and bond prices might well impede monetary stability, it is by no means clear that a policy of permitting fluctuations in the rates and prices of Government securities would promote stability as long as the present public debt structure is retained. To be effective against inflation, higher interest rates would have to result in the conversion of idle or excess monetary balances into holdings of Government securities or into time deposits. In the long run, the rate of interest probably has a great deal of influence both on the employment and holding of money. But in the face of short-run inflationary developments of any real magnitude, a very great increase in interest rates might be necessary to resist the conversion of Government securities into deposits. Interest rates of 5 and 6 per cent on Government securities following the last war were not an adequate curb on credit expansion by banks and did not promote nonbanking absorption of Government securities to any significant extent. When prices of commodities can increase more than 10 per cent in a year, high interest rates probably do not have much effect.

Even with advancing rates, banks could afford to use Federal Government securities to replenish reserves. They could probably obtain higher rates from their customers, for rising interest rates are probably a very weak impediment to private credit demands. The influence of short-term interest rates on business decisions may be slight, since in many cases interest is a small part of business costs. Speculative and expansionary activities in the past may have been inhibited less by high rates than by the underlying scarcity of funds.

Furthermore, flexible interest rates and fluctuating Government security prices present an obstacle to stable ownership of securities. Stable

ownership of Government securities is itself a desirable goal because it minimizes the chances of concentrated periods of sale and redemption which lead to periods of concentration in expenditures. Some holders are no doubt attracted by the very fact of stability and would hesitate to hold any investment, no matter what the yield, if it were not "dependable." One practical problem is that banks often seem to be very sensitive to Government security prices, probably because of their capital position. Changes in the level of interest rates and therefore security prices in the past have sometimes led to concentrated and panicky selling of securities by banks. Offerings have sometimes come to the market so precipitously that buyers could not be found without rapid and unnecessarily large markdowns in prices. In other words, once a change in prices is set in motion it may tend to go a considerable distance without finding an automatic corrective in the mechanisms of the market. And Federal Reserve buying in such circumstances, though "for the purpose of maintaining an orderly market," expands reserves and creates the potential of credit expansion.

It is sometimes maintained that there is a compromise policy that can be pursued even with the existing debt structure—a policy of maintaining "reasonable" stability in the long-term interest rate while permitting rather larger fluctuations in short-term interest rates. No appraisal of this compromise policy can be made without more exact definition of what is meant by "reasonable" stability in long-term yields. If this sort of stability means relatively narrow price fluctuation with a guarantee for a long period in the future, it is doubtful whether many short-term securities could be sold except at yields very close to the long-term rates. Why should investors hold short-term securities and accept an appreciably lower return if the long-term rate is held within fairly narrow margins? On the other hand, would the Treasury go to the short-term market if rates there were above the long-term rate? And in the absence of Treasury demand, and with prospective stability of the long-term rate, could a short-term rate higher than the long-term rate prevail?

Existence of fluctuation in the short-term rate requires that the long-term rate also move within margins wide enough to produce appreciable capital losses or gains and to endow longer term investment with enough risk to deter some investors. But, expanded to this range, the policy becomes essentially one of fully flexible interest rates and, as such, is subject to the limitations discussed above.

PRACTICAL CONSIDERATIONS IN PUBLIC DEBT PLANNING

The first part of this essay has been devoted mainly to diagnosis of the shortcomings of the present debt structure for purposes of monetary control. The remainder will be devoted to prescription. Before undertaking to make concrete suggestions for changing the debt structure it is necessary to recollect a variety of practical considerations that must weigh in any public debt planning. Some of these considerations are more political than economic. The leading ones are:

(1) Planning for financing the public debt must be done as a whole since special limitations or restrictions in one sector of the Government security market have immediate repercussions in all other sectors. In other words, such proposals as are later discussed for limitation of bank ownership carry with them an equally important corollary that dependable markets must be developed in other sectors of the economy.

(2) The kind of new securities issues will have to allow for substantial changes in the structure of public debt ownership. Nonfinancial corporations, State and local governments, and some other groups cannot be expected to hold large amounts of the public debt indefinitely. Holdings may be liquidated by these groups at a greater rate than they can be absorbed by budget surpluses and may therefore have to be absorbed by individuals or by financial institutions. Public debt plans in the postwar period, therefore, should look toward not only steady but increasing ownership of Government securities by individuals, insurance companies, and savings banks.

(3) Other factors being equal, the interest cost of carrying the Federal debt should be as low as possible. Practical budgetary considerations argue for low cost. Also, as explained in another paper in this pamphlet, interest payments on the Federal debt probably support consumption less than other types of Government expenditures.[1]

(4) The sentiment to require price stability for all marketable Government securities must be recognized. The fact that Liberty Bonds declined to the low 80's following the last war is still pointed to as a breach of faith by the Government. It is not clear that a politically sensitive administration could afford to permit much price fluctuation in marketable issues.

(5) The credit authorities should have freedom of action to deal with either inflationary or deflationary circumstances. The proper preparation

[1] Henry C. Wallich, "Public Debt and Income Flow," pp. 84–100.

of the credit authorities is to secure a strategic position that will permit tactical operations against whichever kind of condition emerges.

PROPOSED CHANGES IN PUBLIC DEBT STRUCTURE

The changes in the public debt structure proposed in this essay have been framed with the idea of establishing the minimum prerequisites for effective monetary control while meeting the other objectives of debt management as far as possible, *i.e.*, permitting the changes in public debt ownership that are needed to facilitate business financing, avoiding wide fluctuations in Government security prices, and minimizing the cost of the public debt. The greatest change would concern bank ownership of Government securities.

The burden of proof must be on any proposal for change in the structure of the public debt. Change is itself unsettling. It may foster irrational doubts and create unsettled markets. Change must not only offer real advantages but the advantages must be clearly evident. The fact that nonmarketable issues sold so far are redeemable practically on demand and the fact that prices of nonmarketable issues have been stabilized have vested holders with rights that are hard to withdraw or negate. Without compulsion the only way to do this is to offer holders even more attractive rights in other forms.

In the proposals that follow, the only economic interests that might appear to suffer any loss of rights are the commercial banks. But if the case is considered broadly they also will gain by the change. Banks stand to lose from monetary instability as much as any group. Moreover, settlement of the vexing problem of public debt financing opens up the prospect for a flexible interest rate policy with respect to private bank loans and investments. To the extent this meant higher interest rates, banks might profit greatly from the change. Without some modification of the present financing arrangements, interest rates would possibly not be allowed to rise, and hence the whole awkward paraphernalia of restricted issues and similar devices would be retained and even extended in the effort to keep banks from profiting unreasonably from holding Government securities.

Public Debt in the Banking System. Stabilization of interest rates on Government securities reduces the effectiveness of credit control. Ownership of a large volume of short-term Government securities by banks, even without interest rate stabilization, has almost the same effect since banks can secure additional reserve funds and with them take an active, even an aggressive, role in expanding deposits. Any plan to put bank

reserves under control must in some way subject bank ownership of Government securities to direct control. The banking system must earn its living and justify its existence by supplying credit for business and consumption, not by relying upon its ability to monetize the public debt.

The exact means for accomplishing this end cannot be specified without a great deal of further study. To be fair to the banks the device adopted should allow for substantial differences among banks in present holdings of Government securities and should permit legitimate private demand for credit to be met. Some of the possible devices that have been suggested are as follows:

(1) Require banks to invest an amount equal to some proportion of demand deposits in a special nonmarketable Government security redeemable only to meet deposit losses.

(2) Require banks to hold an amount of a special nonmarketable Government security equal to increases in demand deposits after some base date such as December 31, 1939. A variant of this device would be to "freeze" holdings as of some recent base date but to permit each bank to vary its holdings as it lost or gained deposits.

(3) Raise reserve requirements on demand deposits (and extend requirements to all commercial banks) but pay interest on reserve balances. Banks would meet these requirements by selling marketable Government securities to the Federal Reserve Banks. This would be akin to the 100 per cent reserve proposal.

This proposal is not made for the purpose of limiting bank earnings. The question is rather one of equity and it should be resolved by deciding which social group should bear the costs of operating the money system. For credit control purposes, the earnings permitted on bank holdings of Government securities might well be generous, though probably below the levels paid other holders of Government securities.

This much interference with the "rights" of private commercial banks cannot very well be avoided. In modern economic systems, the supply of money must be subject to Government regulation, if monetary instability is to be avoided. Because money has come to consist predominantly of the demand deposit obligations of commercial banks, these institutions—though privately owned—are unavoidably in the public sector; they must be subject to public regulation to a degree that is true of no other part of the business community.

One special reservation must be made for the commercial banks. The savings institutions should be permitted to carry Government obliga-

tions with an interest return at least as high as the present one. Since commercial banks also transact a large volume of savings business, they should have equal rights to participate in such types of investment to the extent that they hold savings deposits. Thus far, commercial banks with time deposits have not had access to as liberal supplies of long-term Government securities as pure savings banks have had.

Other Holders of Government Securities. If bank holdings of Government securities are to be restricted to special issues, it is equally important that adequate provision should be made for marketing the remainder of the debt. The ideal circumstance to be sought is one in which there would be such a steady and active demand that the new money and refunding needs of the Treasury could be fully met by the market outside the banking system at all times. It means that the securities offered should be made attractive and convenient for the class of holders for which ownership can be expected and should be encouraged.

It would probably be unwise to apply measures of compulsion to the holding of Government securities except in the case of commercial banks. The measures proposed, therefore, are more by way of added inducements, intended to increase the stability of ownership. So far as possible, these inducements should not increase the service cost of the public debt.

While the primary objective in the treatment of nonbanking investors is to secure stability of ownership, other worthwhile ends can be served. To the extent that business concerns own Government securities, they are a source of funds for financing capital outlays that should not be closed off. For institutional investors such as insurance companies and savings banks, these securities offer relatively liquid reserves that permit the companies more freedom in the management of other assets. For individuals the securities offer a savings vehicle and a supplement to social and personal security that should help to encourage more adequate consumption from current income. Planning of debt ownership for individuals should offer incentives for steady and well-maintained consumption while at the same time penalizing excessive concentration of consumption expenditures at irregular intervals of time.

Because the circumstances of ownership vary for the important holder groups—corporations, insurance companies and savings banks, and individuals—the plan of offering for each group is set forth separately.

In the long run, it is doubtful whether *corporations* should be expected to continue to be substantial holders of Government securities. Business corporations are normally net demanders of capital, not suppliers. Re-

duction of the great tax liabilities incurred during the war period together with postwar capital expenditures should tend to reduce corporate ownership. No doubt a small residual amount will continue indefinitely. Government issues intended for purchase by corporations are now dominated by certificates of indebtedness and tax savings notes and might very well be left pretty much in their present form.

Ownership of Government securities by *insurance companies* and *savings banks* tends to be stable and there might be relatively little advantage in refunding the sort of obligation they now hold. For ordinary purposes, a stable market could probably be assured for outstanding issues by adjustment of the Government's trust accounts whose holdings are now largely in the form of special issues. Except in periods of depression these trust accounts will continue to be absorbers of Government securities. Buying and selling for these trust accounts, perhaps through the agency of the Federal Reserve open market account, could be used to stabilize the market for securities now held by insurance companies and savings banks.

It may be reasonably expected after the aggregate debt has stopped growing that some important groups of holders of Government securities, such as *nonfinancial corporations* and *State and local governments*, will tend to draw on their cash and Government security holdings. It is doubtful if budget surpluses sufficient to absorb this net selling can reasonably be expected for some time after the war. For this reason plans should be made so that *individuals* will continue to absorb more of the public debt, in order to keep this part of the debt from gravitating into the banking system and creating more deposits and currency. Of course, some individuals will be sellers but for the group as a whole continued absorption must be planned. Although to prevent inflation it would be desirable to assure adequate savings by individuals, in order to prevent deflation the savings incentives should not be set too high. The following proposals, therefore, attempt to provide assurance of normally stable holding by individuals together with some incentives for further acquisition, but they also have various features providing long-run encouragement to stable consumption. The proposals look toward conversion of present holdings and shaping of new offerings in three general forms:

(1) The Treasury could offer to sell unemployment insurance which would be in addition to (and in no case restrictive of) unemployment compensation provided under the social security provisions of the

Federal Government and the States. This insurance could be administered through existing channels. Purchasers could be permitted to exchange present holdings of savings bonds for the insurance or to pay for it out of future savings. The exchange offer could be held open for a fixed period only and the sales offering of insurance for new savings could be made only when there was need for encouraging savings.

Government receipts and expenditures under this plan would have a stabilizing effect on the economy. If reasonably full employment prevailed, public debt would be retired; if unemployment increased, the payment of insurance benefits would encourage consumption. Both actions would come at the right time to smooth fluctuations in economic activity.

(2) The Treasury could offer life and beneficiary annuities in exchange for present holdings of savings bonds and, in periods when additional savings are needed, through special offerings for cash. Cash offerings could be made through the insurance companies if Government competition in the insurance field were feared. This sort of arrangement serves the purpose of promoting stability in ownership while ultimately tending to encourage stable consumption.

(3) The Treasury could offer stable purchasing power bonds in exchange for any Government security held by an individual. New offerings could also be made in this form. Since stability of real values is unavoidably jeopardized by the after effects of war finance, this sort of offering is equitable.

Stable purchasing power bonds could and probably should be nonmarketable in form and if so should be redeemable only with some penalty. A sliding scale of interest rates such as now applies to savings bonds might be utilized. This plan would be aimed mainly at investors for whom maintenance of purchasing power is important. It is possible, of course, that the stable purchasing power provision might also be made on each of the other two types of offerings outlined above.

Even with the considerable attractiveness of these offers, all of the outstanding issues held by individuals would not be converted. Those not converted but not redeemed or marketed need cause no concern. The money raised by the new plans might be sufficient to absorb issues redeemed for cash before maturity. Market operations for the Treasury trust funds might be used to take up any remaining slack.

CREDIT POLICY WITH PROPOSED DEBT STRUCTURE

If the public debt should be refunded largely into nonmarketable obligations as these proposals contemplate, the Reserve System would no

longer effect its credit policy mainly through open-market operations. Credit policy would then be a direct function of debt management (which it is indirectly, in any event). When expansion was desired, an additional supply of the special bank securities could be made available to the banking system. When monetary contraction was in order, the special issues held by banks could be retired and replaced by issues sold to nonbanking holders. Under some circumstances these direct adjustments of money supply would no doubt have to be coordinated with or used to offset open-market transactions by the Federal Reserve System for other purposes. The result would be firmer control than now exists. When open-market operations are used to influence the price of Government securities as well as to adjust the volume of reserve funds, it is not always possible to reconcile precisely these two objectives. If prices on Government securities were no longer at stake, credit operations could either tighten or relax the money market much more precisely. By removing Government securities from the market, it would make possible the revival of credit policies which would vary the cost and availability of funds to private borrowers.

With credit policy effected mainly through direct adjustment of the Government securities held by the banking system, it would be possible to coordinate credit and monetary policy, on the one hand, and general requirements of fiscal policy on the other. When inflationary factors predominated, appropriate fiscal policy would presumably result in budget surpluses. These surpluses could be used to reduce bank holdings of Government securities, which would reduce the money supply or at least curb its growth. Conversely, in periods in which depression elements predominated and in which fiscal policies resulted in deficits, the added debt could be channeled mainly into monetary expansion, if such were thought to be useful.

BUT WHAT ABOUT DEFLATION?

The proposals made so far have been intended mainly to meet the possibilities of inflation. Would they weaken the power of the monetary authorities to cope with deflation? If deflationary circumstances arose, the system of nonmarketable Government issues would still permit the easing of bank reserves even if the aggregate of public debt were not increasing. But if public deficits should accompany these developments, as they probably would, the direct control of bank holdings of Government securities would furnish a vehicle for monetary expansion. New

reserves and new earning assets resulting from the increased debt could be channeled into the banking system. The effectiveness of monetary expansion in such circumstances is not the issue; the point is that the credit authorities would have as effective powers to combat deflation as they have with the present public debt structure.

PUBLIC DEBT AND INCOME FLOW

by

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For the first time in our history we are faced with a national debt so large that, in all probability, we cannot count on being able to pay it off within any foreseeable period of time. Like it or not, the debt will be with us for a long while, and its magnitude is bound to make it an important factor in our economic life.

The effects of the debt upon the size and distribution of national income, with which this study will be concerned, are of several kinds. One of them is the slowing up of the income stream which is likely to result from the payment, from tax receipts, of large amounts of interest to debt holders who may respend only a small fraction of it. In the first section of this study an attempt will be made to measure this quantitative effect within rough limits. More important perhaps, though not quantitatively measurable, are certain changes in the psychological attitude of investors and consumers which may result from the increased tax burden on one hand and from the increase in holdings of Government securities and cash balances on the other. These will be taken up later on. Various other aspects, such as the unstabilizing influence of the debt under inflationary conditions, its restrictive effect upon the freedom of monetary policy, and certain problems raised by a further growth in the debt, are dealt with in other parts of this pamphlet.

An existing public debt, as later pages will show, is not exclusively a factor making for contraction of the economy. In some of its aspects, particularly because of the increasing liquidity and financial security which it gives to investors, it probably will prove to have stimulating effects upon new investment and consumption. In an extreme case, this stimulus may degenerate into dangerous inflation. Taken all in all, however, it is probably true that the large postwar debt will constitute a burden for the economy.

It is very important to note, however, that many of the effects flowing from the debt are not attributable specifically to its public character but would in some measure be produced also by the private creation of a

large volume of liquid and income yielding assets. If after 1929, instead of running into the depression and subsequently the war, we had continued to enjoy a steadily expanding national income, supported by high private investment and continued credit expansion, we might by now be approaching an aggregate level of private debt, equity holdings, and money supply comparable to what we are facing in the form and as a result of the public debt. In consequence, we would be facing many of the same problems, although perhaps in less serious forms. Basically, therefore, the problems which we tend to blame on our large public debt are those of a high income and high savings economy.

DEBT SERVICE AND INCOME STREAM

Interest paid on the Federal debt flows into three channels: (1) part returns to the Government in the form of taxes; (2) part goes into cash savings or such financial investments as do not add to the demand for goods and services; (3) the rest goes into the income stream through expenditures for consumption or physical investment. An attempt has been made to estimate the amount in each category as of December 31, 1944, and to forecast it for the first approximately "normal" year after the war. The results are shown in the table on the following page.

The postwar estimates in the table assume a Federal debt of 310 billion dollars at the close of 1947. This estimate should be adequate if annual Government expenditures taper off toward a 30 billion dollar level by that time. The composition and distribution of the debt after the war is estimated on the basis of recent trends in Federal financing, and attempts to take account, in some measure, of the shifts in ownership which are likely to occur during the reconversion period. The estimated interest on a 310 billion dollar debt of this composition amounts to 5.7 billion dollars, of which one billion might be recouped by taxes under the postwar rate structure assumed.[1] Of the remainder, 2.9 billion might conceivably go into idle savings, leaving only 1.8 billion to go back into the income stream.[2]

[1] For details of the assumed rate structure, see Richard A. Musgrave, "Federal Tax Reform," pp. 49–51 of this pamphlet.

[2] The term "idle savings," in the sense here used, includes security purchases and other forms of financial investment which merely lead to shifts of assets from one holder to another and do not give rise to new physical investment. It is understood, of course, that these savings may indirectly be absorbed into new physical investment if some third party decides to undertake such investment; but it is doubtful that the mere availability of these savings will induce others to make physical investments which they would otherwise not have made. To the extent that they fail to do so, the savings constitute a leakage.

FLOW OF INTEREST ON FEDERAL DEBT, 1944 AND FIRST "NORMAL" POSTWAR YEAR

Recipient of interest	Holdings of Government securities (In billions of dollars)		Annual interest (In millions of dollars)		Disposition of interest payments (In millions of dollars)					
					Taxes[1]		Idle Savings[2]		Income stream	
	1944[3]	1948[4]	1944[5]	1948[6]	1944	1948	1944	1948	1944	1948
Commercial banks	77.8	107.0	1,300	1,700	275	375	455	625	570	700
Federal Reserve Banks	18.8	32.0	135	175	0	0	75	100	60	75
Individuals:[7]										
Savings bonds, Series E	25.6	33.0	180	850	(9)	80	180	470	(9)	300
All other Government securities	26.7	41.0	615	950	300	390	175	300	140	260
Insurance companies	19.6	28.0	460	675	(9)	(9)	460	675	0	0
Mutual savings banks	8.3	11.0	185	250	25	35	100	130	60	85
Corporations[8]	27.7	26.0	380	360	170	120	210	120	(9)	120
State and local governments	4.2	6.0	75	110	0	0	75	0	0	110
U. S. agencies and trust funds	21.7	26.0	520	630	0	0	520	480	0	150
Total	230.4	310.0	3,850	5,700	770	1,000	2,250	2,900	830	1,800

[1] Including taxes paid by individuals on dividends and interest received from institutional holders to the extent that these dividends and interest may be regarded as derived from the institutions' income from Government security holdings. Both direct and indirect income from Government securities are treated as marginal income except in the case of interest received by commercial banks.

[2] Including amounts saved by individuals out of dividends and interest described in note (1) above. All income except that of commercial banks is treated as marginal income.

[3] As of December 31.

[4] As of January 1.

[5] Annual amounts for the year ending Dec. 31, 1944, on the debt outstanding as of that date, except interest on Series E bonds, for which the accrual of redemption values during the calendar year 1944 is given.

[6] Annual amounts for the year 1948 on the debt outstanding at the beginning of the year.

[7] Including partnerships, personal trust accounts, and unincorporated business.

[8] Including dealers and brokers, and foreign balances in this country.

[9] Amount negligible.

Slowing Down of Income Stream. On the basis of the data in the table, it is possible to estimate very roughly the degree to which the postwar debt service is likely to slow down the income stream. Since as much as one billion of the estimated interest charge of 5.7 billion dollars is likely to be recouped under assumed postwar tax rates, the remaining 4.7 billion must be financed (if not by loans) by taxes paid out of income from sources other than Government bonds. These 4.7 billion dollars are the "gross leakage" from the income stream occasioned by interest service

on the Federal debt. From this must be deducted, however, the approximately 1.8 billion which receivers of interest on the Federal debt are expected to put back into the income stream. The leakage is thus reduced to 2.9 billion, the estimated amount of idle savings out of interest on Government bonds. Almost 0.5 billion of this leakage is due to interest accruing on E bonds, which is neither currently paid to nor spent by the holders. Given certain arrangements (of which more will be said later), the Treasury, for the time being, can avoid levying taxes to meet these accruals, since the funds are not currently needed. The amount which the Treasury would have to collect to finance the debt service would thereby be reduced from 4.7 to about 4.2 billion dollars and the leakage would be cut to about 2.4 billion. A further deduction must be made in view of the fact that a good part of taxes is paid out of money that would otherwise be saved. It has been estimated that, for the post-war revenue structure, about one-third of total taxes paid may come out of idle savings, assuming that individual income taxes make up a substantial part of total revenues.[3] We may assume, therefore, that in raising about 4.2 billion dollars through general taxation, *i.e.* taxes on income other than from Government interest, the Treasury would be taxing away at least 1.5 billion of money that would otherwise be saved. This part of taxes, therefore, merely absorbs an already existing leakage, and may be deducted from the 2.4 billion leakage arrived at above. There remains a net loss from the income stream of slightly over 0.9 billion dollars.[4] The computation is summarized below:

		Billions of dollars
Total interest charge		5.7
Recouped by taxes upon interest income		1.0
Net interest charge (gross leakage)		4.7
Deduct—Interest respent by recipients	1.8	
Non-collection of taxes to cover interest on E bonds	0.47	
Idle savings taxed away out of income other than from interest	1.5	3.77
Net leakage		0.93

[3] See p. 28 of this pamphlet.

[4] The loss from the income stream as here estimated does not take into account the adverse effects which additional taxation may have upon investment. This aspect will be taken up below.

A net leakage from the income stream of less than one billion dollars as a result of a Federal debt service of 5.7 billion would be gratifyingly small, and would seem to suggest that the adverse effects of interest payment on the level of private expenditures, though undoubtedly requiring attention, could be handled without too much difficulty. The problems created by the debt in this direction do not appear to be serious.

In appraising the tax and idle savings estimates, it must be borne in mind that interest income (except that of commercial banks) is treated here as marginal income. The tax estimate is based, therefore, not on the *average* rate applying to the taxpayer, but on the rate applying to each taxpayer's *top bracket.* Similarly the savings estimate is based, not on the percentage of *total income* saved by each income receiver, but on the percentage saved of the *marginal income* represented by interest receipts. These procedures are logical, since to evaluate the effect of the debt a comparison must be made with a hypothetical situation in which there is no debt (or at least no interest charge) and in which individual and corporate income is lower by the amount of interest otherwise received from the Government.

The savings estimate is necessarily somewhat problematical, because of our rather limited statistical knowledge of the subject and also because of other and more fundamental reasons. Briefly put, these reasons have to do with our inability to visualize just what level of income, savings, distribution of assets, and other conditions would prevail if there were no public debt and hence no saving out of the interest thereon. It might well be that at least part of the savings now made out of this interest would still be made in the absence of the debt, due to a different distribution and quantity of private assets. It cannot be taken for granted, in other words, that the savings which come out of Government interest are causally attributable to it.

It should be remembered that our savings estimate covers only cash savings and savings employed in financial investment that does not add to the demand for goods and services. A certain amount of corporate and individual savings assumed to be directly employed for new physical investment is excluded; this amount is added to interest payments which are returned to the income stream through private expenditures. The savings estimate is arrived at, in the case of individuals, on the basis of budget studies, after estimating the average income bracket to which holders of each type of security might typically belong. In the case of

corporations it is based on assumptions which appear reasonable, but the uncertainty here is even greater than in the case of individuals.

It may be added, however, that we are not so much interested in establishing an absolute leakage estimate as in giving a reasonable upper limit. The important point is that our assumptions regarding tax shifting and the impact on savings are in general rather conservative; they tend to exaggerate the net leakage rather than to minimize it. Even if it were assumed that the amount to be recouped by taxes upon interest income and the amount of savings taxed away, where over-estimates might most easily have occurred, were both 25 per cent too high, the net leakage would be increased to only 1.4 billion. This figure would still warrant the conclusion that the slowing down of the income stream caused by the redistributive effects of the debt service is not a major problem.

Redistribution of Income. So far, we have been concerned with the effect which taxes and interest payments arising from the increased debt are likely to have upon national income in the aggregate. We have not paid close attention to the way in which these taxes and interest payments are likely to affect individuals in particular income brackets. To do this, it would be necessary to compare the interest receipts of each income class with the taxes paid by that class for the purpose of debt service.

A calculation of this sort would require fairly accurate knowledge of the ownership of the Federal debt by income classes and of the incidence of the tax burden. The required data are not available. On the basis of estimates taking into account the probable increase in liquid assets at various income levels, as well as the volume of securities of lower denominations outstanding, one may assume very roughly that individuals with incomes below $5,000 will be holding 25–30 billion dollars of Government securities. The great majority of these will be E bonds. If the latter were held to maturity, yielding 2.9 per cent, an average yield of perhaps 2.7 per cent might be assumed for all Government securities owned in these lower brackets. Their holders would then receive in the neighborhood of 0.75 billion dollars in interest. Against this it may be estimated that under the assumed postwar tax structure, at a national income of 140 billions, individuals with incomes up to $5,000 would contribute to the financing of the Federal interest charge something like 2.5–3.0 billion.[5] The debt service, therefore, may cost individuals in

[5] For the assumptions underlying this estimate, see notes to the table on p. 90. For further qualifications, see pp. 91–92.

these brackets about 2 billion. If substantial redemption of E bonds occurs within a few years of 1948, the loss to the brackets up to $5,000 will probably be more than this.[6]

A somewhat more detailed estimate of the tax load upon individuals imposed by the debt at assumed postwar rates is given in the table below, which also shows what amount of E bonds the occupants of brackets up to $10,000 would need in order to offset the tax cost.

CONTRIBUTION OF TAXES TO DEBT SERVICE UNDER ASSUMED POSTWAR TAX SYSTEM[1]

Income before tax[2]	Personal income taxes[3]	Other taxes[4]	Total taxes paid out of earned income	Net contribution to debt service out of earned income[5]	E bonds required[6]
$ 1,000	$ 0	$ 40	$ 40	$ 11	$ 480
2,000	0	80	80	23	720
4,000	288	170	458	131	5,650
6,000	673	270	943	269	11,890
8,000	1,110	380	1,490	425	19,800
10,000	1,612	545	2,157	615	30,300

[1] For details of this system, see pp. 50–51 of this pamphlet.

[2] Gross income before exemptions; excludes appreciation of savings bonds held.

[3] Exemptions of $2,400 assumed for couple with two dependents. Deductions of 10 per cent from income after exemptions.

[4] Taxes other than personal income taxes have been accounted for as follows: Excises plus 50 per cent of corporation taxes are distributed in accordance with the average propensity to consume at each income level; the remaining 50 per cent of corporation taxes is distributed in proportion to dividend receipts at each level. A small allowance has been made for gift and estate taxes.

[5] Assumed to be 28.5 per cent of the individual tax burden, this being the proportion of estimated total tax revenue (20 billion before pay-roll taxes, at a national income of 140 billions) which will be absorbed by the 5.7 billion dollar debt service. The figures would remain unchanged if a higher but equally distributed tax burden were assumed.

[6] At cost price. The amount of E bonds required is calculated to make the income from them equal to the contribution to debt service out of other income plus the added income taxes occasioned by this extra income. An average yield of 2.9 per cent to maturity is assumed, and it is likewise assumed, for purposes of illustration, that the holder accrues interest income at that rate on his tax return.

Applying the figures in the table, we find that if an individual with an annual income of $4,000 before taxes had set out at the beginning of the war to buy E bonds over the next six years sufficient to make the interest thereon balance his prospective 1948 tax contribution to the debt, that is,

[6] It should be noted that a heavier tax burden than that implied by the assumed postwar tax system would not affect this calculation, provided the burden is distributed in the same proportion.

equal $131, he would have had to save for this purpose about one quarter of his pre-tax income. For an individual with an income of $8,000, added savings of about 40 per cent would be required. These are pretty impressive feats of economizing, and probably beyond what the average individual has been able to achieve in the face of high wartime taxation. The figures assume, moreover, that the taxpayer is fortunate enough to have a wife and two further dependents; otherwise, his tax burden would be correspondingly heavier.[7]

The table also shows that a person with an income of $2,000 contributes relatively little to the financing of the debt, and that he could acquire the appropriate amount of bonds (or other securities of similar yield) by saving less than 10 per cent of his income for a six-year period. It may be that a good many people in this class will have protected themselves in this way against the postwar burden of the public debt. The situation would seem more difficult for those in the $1,000 group. One cannot rely too firmly upon these data, however, since the estimate of the tax burden borne by the lower brackets, consisting mainly of excise taxes, and of one-half of the corporation tax assumed to be shifted, is necessarily very rough.

Quite generally, moreover, the implications of these estimates must be regarded with some reservations. In the first place, a taxpayer's direct holdings of Government obligations do not necessarily indicate the full extent of his participation in ownership of the public debt. Through demand and savings deposits, insurance policies, or currency holdings, he may have an indirect participation in, and in some cases an indirect income from, the debt. The increasing complexity of these ramifications discourages any attempt at tracing them, but their existence must be acknowledged.[8]

In the second place, we are not necessarily justified in assuming, as we did in estimating the amount which taxpayers contribute to the debt service, that the debt service takes an equal percentage out of everybody's tax dollar. In other words, it does not follow that because the debt service takes 28.5 per cent of tax revenues, 28.5 per cent of everybody's

[7] It is important to distinguish the effects upon individual incomes of an already existing debt, which are discussed above, from the effects brought about by the creation of the debt. An individual may have enjoyed a high income and substantial savings as a result of the Government's debt-financed war expenditures, but may have invested his savings in assets other than Government bonds. In that case, he will obviously have benefited by the creation of the debt, although he will not receive any interest from it to offset his increased tax burden.

[8] Holders of demand deposits, for instance, derive a kind of negative income from the relative absence of service charges which the bank's large debt holdings make possible.

taxes are attributable to the debt. If the debt were refinanced on an interest-free basis, for instance, it is very unlikely that after the ensuing congressional wrangle everybody would find his tax burden reduced by 28.5 per cent. Likewise, it is perfectly obvious that the rise in the tax burden associated with the rise in debt service (and sundry other budget items) since 1939 has not been proportionately the same for different income brackets.[9]

There is in effect no precise way of stating what portion of a taxpayer's liability is attributable to the debt service. Moreover, it should be stressed again that many of the statistics presented in this section are highly tentative and must be subjected to further investigation before important policy conclusions can safely be drawn from them.

Tax Effects. The leakage of 0.9 billion dollars arrived at above means that investment will have to be greater by the same amount than would otherwise be necessary in order to attain a given level of employment and income. If the additional investment is not forthcoming, and if the gap is not filled by Government expenditures, income will be lower by perhaps twice the leakage, taking into account its secondary effects.

In addition to this rather moderate effect caused by income redistribution, certain other impacts of the additional tax load must be considered. A great deal has been said about the manner in which investment is discouraged by taxation, and most new tax proposals aim at minimizing this deadening influence, partly through the character and level of the taxes proposed, partly by permitting more complete offsets of gains and losses. Granting that our present tax laws are capable of much improvement, it remains doubtful whether even a perfect system of loss offsets would completely neutralize the adverse effects of taxation upon risk taking, wherever the profit motive is dominant. Even though his investment odds remain unchanged, the more and more heavily taxed investor finds himself tying up his money for increasingly small, though not more uncertain, returns. He is therefore driven increasingly to postpone the commitment of his funds in expectation of a more promising opportunity. Aggregate investment inevitably then must suffer.[10]

On the other hand, where competitive position and prestige play a more important role than the profit motive, as may often be true of corporate and wealthy individual's investments, a high tax rate accom-

[9] It is not suggested, of course, that this would have been a fair distribution; for some brackets, it would have raised income taxes above 100 per cent.

[10] See above, pp. 32–34.

panied by adequate loss offset provisions may actually stimulate investment beyond what it might be in the absence of taxation. The reduction in the size of the possible loss in these cases is more important than the possible profit.

An important point not always sufficiently stressed is the impact of corporate taxes upon liquidity, particularly of smaller corporations. Under certain conditions this may so increase the risks as to become a more potent deterrent to new investment than is the reduction in possible profits.

All these effects are qualitative and not subject even to rough measurements; nevertheless they may be dealt with by appropriate tax policies. Another possible implication of the debt, which has frequently been discussed, is the discouragement of effort through relatively high rates on marginal income. If a man receives a fairly substantial part of his income from interest on Government securities, and if the wages he earns are cut substantially by the income tax, he may come to prefer a little more leisure at the expense of a certain sacrifice in earned income. Since at present debt levels the interest income of the great majority of people is in fact negligible, the effort-restraining effect of the taxes required by the debt is probably minor.

THE GOVERNMENT'S CREDITORS

Some of the major blocs of security holdings which make up the public debt exhibit various features worth commenting upon. The items here singled out for attention are (1) commercial bank holdings, (2) holdings of individuals, and (3) holdings of insurance companies. Together these three blocs account for 70 per cent of the estimated postwar Government debt and for 74 per cent of the interest charge.

Commercial Banks. The most important aspect of the 107 billion dollars of Government securities expected to be held by the commercial banks in 1948 is the enormous volume of money thus created. If our estimate proves approximately correct, the volume of demand deposits and currency may exceed 130 billion, which would represent an increase of close to 100 billion over 1939. Since national income at an estimated 140 billion would be little more than twice its 1939 level, the money supply would be running close to 60 billion dollars ahead of the relationship prevailing in 1939. Even in that year the money supply was generally regarded as greatly in excess of business needs; in 1948 the excess will be enormous.

There is little prospect that anything but a moderate fraction of this excess can be eliminated. To do this it would be necessary to induce the banks, by means of credit restriction, to sell part of their holdings to the public, thus wiping out deposits. Because of their great liquidity, investors probably would be willing to absorb a certain volume of securities, particularly since the return to more stable conditions may make the holding of large cash reserves less desirable. Nevertheless, it is unlikely that more than a moderate fraction of the banks' holdings could be disposed of in this way, unless credit restriction is carried far enough to raise interest rates very substantially. Such a policy probably would not be feasible for reasons of debt management as well as on more general grounds.[11]

Barring such measures, the only way to eliminate the excess money supply will be "to grow into it," a process which, with a constant price level, would take several decades even if further bank-financed Government deficits are avoided. A money supply in excess of business needs, however, is not necessarily an unmitigated evil. Its inflationary aspect, true enough, is a distinct danger, but the thirties have taught us that high liquidity, while it *permits* inflation and may accelerate it, does not by itself *produce* it, unless other elements, chiefly an excessive volume of investment, start the ball rolling. In the absence of such factors the high postwar liquidity is more likely to act as a permanent gentle stimulus to the economy, making it easier to approach full employment It will be a powerful factor in keeping interest rates low. If we can control temporary bursts of excessive investment, the great postwar money supply may turn out to be a net advantage.

As to the partial leakage from the income stream resulting from large interest payments to banks, it needs to be pointed out that this particular leakage is the inevitable consequence of high business activity no matter whether the boom is brought about by Government spending or private enterprise. High activity requires a large money supply. If the Government, in recent years, had not supplied this money by its own borrowings from the banks, business would have found itself short of cash and would have been compelled to borrow on a large scale. Very probably the degree of credit expansion would have been less than what we shall actually face, but interest rates on commercial loans are higher than on Government securities, and bank earnings from business borrowing might have

[11] See Roland I. Robinson, "Monetary Aspects of National Debt Policy," pp. 69–83 of this pamphlet.

gone even higher than they are likely to do because of Government borrowing.

For the banks themselves their high Government portfolios pose a serious question. With interest receipts on Governments close to 1.7 billion dollars, probably a good deal more than half of their total 1948 income will come from this source. Unlike other war-expanded enterprises, the expansion of their earnings will probably be permanent. What does this mean for the banks?

In one sense, a period of abnormally high bank earnings might be desirable, because the ensuing surplus accumulation, probably well over 600 million dollars annually, would help the banks to build up their depleted capital ratios. This, in turn, would probably increase their willingness to make more venturesome loans and to assume risks which they would avoid with a weaker capital position. Conceivably, the increase in productive credit might much more than offset the leakage resulting from surplus accumulation. This, of course, is a matter about which no definite predictions can be made.

On the other hand, the banks are becoming increasingly aware that with more than half of their income derived from the Government they may find themselves in a precarious political position. Serious thought has therefore been given to methods of limiting bank earnings, not only by critics of the banks, but also by their friends, as a means of protection against political attacks and, incidentally, to reduce the leakage from the income stream. The income stream problem could, of course, be solved in part by the payment of higher dividends, but this solution would only serve to aggravate the political problem. Higher expenses in the form of a revision of salary scales for lower bank employees would do good in more than one respect without, however, making great inroads upon the main problem. A reduction in service charges would help. Expenses could also be legitimately raised by the payment of higher interest on time deposits.

None of these proposals, however, goes to the core of the problem, which lies in the fact that the banks receive the greater part of their income from the taxpayer. A moderate reduction in this income could be brought about if Federal Reserve policy should induce banks to dispose of part of their holdings to the public, but, as said before, not too much can be expected in this way. To limit bank earnings more effectively it has been suggested that when corporations in general are relieved from the excess profits tax, a special tax of this character should be retained

for the banks. Although at the present time a majority of the banks are barely touching the excess profits bracket, a large number may find themselves well within it if their Government portfolios continue to expand. A tax along present lines, therefore, would not cut bank earnings in general below the current level but would prevent them from going a great deal higher. Rates and exemptions could be adjusted, of course, to achieve whatever results seem desirable. The main objections to this proposal seems to be the undesirability, in more than one respect, of singling out an individual industry for this type of taxation. However, no such objections exist to excise taxes upon individual industries; an excise instead of an excess profits tax might therefore be feasible.

Another possibility that has been suggested is the freezing of a certain volume of very low-interest debt into the banks by means of bond reserve requirements.[12] To require banks to hold an amount of Government securities in specified proportion to their deposits would allow the Treasury to cut down bank earnings by exchanging part of the present holdings against instruments bearing only a nominal interest rate. This would also help to solve some of the problems of debt management. The main difficulty would lie in the unequal distribution of public debt holdings among the banks, which would make it difficult to fix a bond reserve ratio high enough to achieve its goal without forcing some banks to call loans. To fix reserve requirements on the basis of existing holdings would probably be regarded as inequitable. Another and probably more important objection is that the spectacle of one class of holders being deprived of the free disposal of their securities might give the appearance of tampering with the public credit, something to be avoided at all costs.

Still another way of partly getting the banks off the Government's pay roll would be to let the Federal Reserve System buy up an appropriate amount of their securities, the interest being turned back to the Treasury. Alternatively, the same effect could be achieved over a very short period of years by simply refinancing all maturing issues through the Federal Reserve. The resulting excess reserves of the member banks would have to be absorbed by means of higher cash reserve requirements. The operation, however, would be a tremendous one and, if none of the other procedures to reduce bank earnings is adopted, might have to be carried to the point where cash reserves exceeded 50 per cent of demand and time deposits. A banking system with reserves so obviously exceeding

[12] See, for instance, Lawrence Seltzer, "The Problem of Our Excessive Banking Reserves," *Journal of the American Statistical Association*, March 1940, pp. 24–36.

anything required by liquidity considerations probably would still remain in a politically vulnerable position.

Finally, there exists the possibility of simply restricting the issues available to banks to very low-coupon securities, say Treasury bills, leaving it to the banks whether they prefer to acquire these as their present portfolios mature or to hold excess reserves. Of course this would resurrect some of the problems of excess reserves experienced during the thirties.

Ultimately, the problem of excessive bank earnings may perhaps be solved by the joint application of several of the methods mentioned above. Intrinsically, the problem is not a pressing one; concern over it arises mainly from the recognition that their high earnings expose the banks to political dangers.

Individuals. Government securities other than E bonds accumulated by individuals, although estimated at 41 billions for 1948, will constitute only a relatively minor addition to the great volume of securities already owned by more or less well-to-do individuals and should offer no particular problem. The estimated 33 billions of E bonds, on the other hand, present a completely new situation: for the first time in their lives a great many people in the lower income brackets find themselves in the role of security owners, and the Government in consequence finds itself in debt to a group of creditors whose future reactions are singularly difficult to foresee. Although the situation offers a variety of interesting features, attention here will be centered on its income flow aspect.

Present methods of accounting for the interest accruals on these bonds, an estimated 850 million dollars in 1948, create a discrepancy between the cash budget and the bookkeeping budget, similar to the familiar discrepancy originating in the building up of the social security trust funds. The Treasury charges the monthly accruals to interest and must collect an equivalent amount in taxes if the bookkeeping budget is to be balanced. Since this amount is not paid out to the bondholders—it could be used to redeem other securities in order to offset the growth in the redemption value of E bonds—the balancing of the bookkeeping budget would *overbalance* the cash budget and create a corresponding leakage.[13]

If the cash budget is balanced instead of the bookkeeping budget, the leakage can be avoided. Eventually, however, the large volume of bonds sold during the war will mature, and unless business activity at that time

[13] The leakage is reduced by payments of accumulated interest on bonds currently being redeemed. This, however, is unlikely to become a complete offset, unless redemption should turn out to be unexpectedly large.

should be very intense, it is doubtful that the accumulated interest could be raised out of taxes. Almost inevitably then the interest would have to be funded along with the refunding of the principal of the bonds. This means that the interest would be paid with borrowed money.

In the estimate of the total leakage attributable to the debt service, it is assumed that some such arrangement will be resorted to. It might be argued that this assumption is illicit, because if the interest on E bonds can be borrowed, why should not the entire leakage be made to disappear by borrowing sufficient to finance all interest charges? In practice, however, the assumption made in this paper probably will prove sound. The character of the E bonds, combined with their war-conditioned maturity distribution, is such as to leave us very little choice other than to suffer an income leakage, if we collect the interest gradually, or to borrow the interest upon maturity. If conditions make it desirable to avoid leakages, we shall probably choose the second way out.

Whatever is done, however, it seems clear that for a while at least the savings bonds will be a source of net expansion rather than contraction. For several years there is every reason to expect that redemption of bonds for consumption needs will exceed the amount of interest accruing. If the Treasury does not collect taxes against these accruals, the expansionary effect will be all the greater. In addition, one may expect that the security provided by a backlog of bonds will induce people to spend more freely out of their current income. The increase in expenditures may well be a multiple of the interest accruing on the bonds.

There is a school of thought which believes that many people who now for the first time find themselves with a fairly substantial nest egg will have acquired a taste for saving and will save more rather than less. No doubt this will be true in some cases; that it will be the rule seems rather unlikely. The outcome to some extent will depend on whether the payroll deduction system is maintained. As long as the inflation threat persists, efforts should be made to hold the deduction system together. If contractive tendencies appear, it would be better to scrap it. Similar considerations apply to the refunding of the bonds, that is, to the continued sale of this type of obligation and the offering of facilities to convert maturing bonds into new ones.

The possibility might also be considered of offering to consolidate the very cumbersome portfolios of bonds maturing at weekly or monthly intervals which most holders are accumulating. The ease with which the present components of this portfolio can be turned into cash undoubtedly

encourages spending for consumption. Their staggered maturities are likely to have the same result once this point is reached. Consolidation into a single security for each holder, taking account of the age of all his individual bonds, could be used as a device to discourage spending for consumption.

Under depression conditions, however, the consumption stimulating character of the present bonds would be an advantage. One might then even consider increasing their liquidity by making them eligible as collateral for bank loans. More drastically, the Treasury might offer to redeem all bonds at prices which would give the holder a yield to date of 2.9 per cent, equal to the stipulated yield of the bonds to maturity. These prices would be somewhat above current redemption values, since the 2.9 average yield is reached only during the last year. An offer of this kind would probably stimulate redemptions and hence consumption.

Insurance Companies. To be on the conservative side, the interest receipts of insurance companies in the table on page 86 have been classified in their entirety as savings which do not add to the demand for goods and services. Very probably, however, a part of them should be regarded as indirectly returning to the income stream through the payments which the companies are constantly making to policy holders.[14] Moreover, it is clear that if the companies did not happen to hold Government securities, they would probably be owning other earnings assets and might save just as much.[15] If such other assets should be so hard to obtain that the companies could not secure an equivalent income, they would be forced to raise their premia and reduce their dividends. In that case policy holders would have to increase their own current insurance saving and probably reduce consumption expenditures, unless they should decide to take out less insurance. A new source of savings and a

[14] The best way of looking at the matter would probably be to regard most of the interest currently received as being saved, but to deduct from it whatever accumulations of past interest are currently being paid out. In that case, savings out of interest would be much less than the rather pessimistic assumptions made above indicate, but it would remain to be investigated how much of the payments which the companies make on matured policies is saved by the policy holders. Statistically, however, this approach would be extremely uncertain, and its justification might possibly be questioned because there is no direct connection between current receipts of Government interest by the companies and their outpayments of accumulated interest.

[15] A large part of the alternative assets which insurance companies might have acquired in the absence of a Federal debt would have been bid away from other investors, whose income and saving in that case would have been lower than otherwise. Saving, in other words, would be less *somewhere* in the economy; how much less depends on the taxes and the saving habits of the investors whose securities might have been bid away.

further leakage from the income stream would thus be opened up, offsetting at least in part lower accumulation by the companies out of investment income. Here again, the public debt cannot altogether be regarded as the *cause* of savings, even though the savings are technically made out of Government interest.

More significant perhaps than the interest and saving angle is the influence of insurance companies upon investment activity. As long as life insurance concerns are free to buy unlimited amounts of Treasury 2½'s, they are only occasionally driven beyond the peaceful confines of the Government bond market by the need to average their net returns up to 2¾ or 3 per cent. It seems logical that at a time when we are hard pressed to find ways of converting our savings fully into investment, the institutions which manage one of the nation's largest savings pools should be asked to cooperate as fully as is compatible with the safety of their assets. On one side this means to extend the range of assets which now are legal for life insurance companies, and on the other to limit somewhat the easy alternative of buying Government obligations.

STATE AND LOCAL FINANCE

by

GEORGE W. MITCHELL, OSCAR F. LITTERER, AND EVSEY D. DOMAR*

Preceding papers have dealt with the role that government fiscal policy plays in the attainment of economic stability and the full utilization of human and capital resources. They have specified the contribution that can be made by the Federal Government and have delineated the problems involved in shaping Federal revenue and expenditure practices to such an end. It is apparent that the government elements of a national economic policy must in large measure be supplied by the National Government. Nonetheless State and local governments play an important role in the entire economy, and the fiscal policies of these governments if integrated with a Federal program can aid in securing the goal of full employment and economic stability.

In terms of the aggregate of expenditure during the period 1920–40, the local and State governments had a greater impact on the economy than had the Federal Government. In no year did their expenditures constitute less than 40 per cent of total government disbursement, as indicated by the chart on page 102, and in some years these units accounted for as much as 70 per cent of the total. Through many of these years the expenditure practices of the State and local governments were directly counter to those of the Federal Government. This divergence, prevailing during a period characterized by extremes of prosperity and of depression, largely deprived the economy of the beneficial effects of a consistent and integrated government expenditure and revenue pattern.

It is the purpose of this paper to examine the characteristics of State and local finance with a view to ascertaining how and to what extent the State and local units can pursue fiscal policies of the type urged in earlier chapters. The obstacles to such a course of action are associated with

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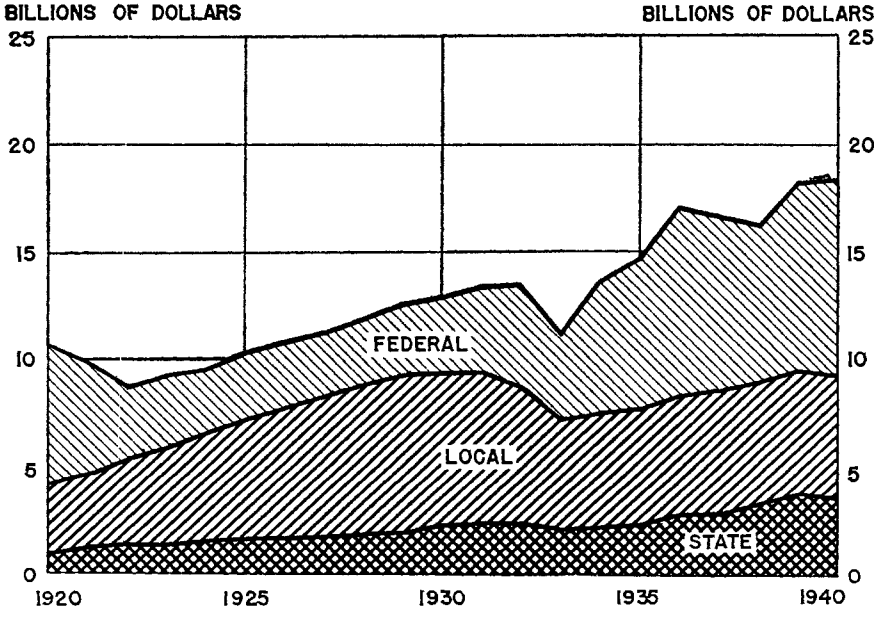
the character of State and local expenditure, the great diversity in the capacity of States and localities to finance expenditure programs adequate to achieve the fullest use of the economic and manpower resources

FEDERAL, STATE, AND LOCAL EXPENDITURES, 1920 - 1940
CALENDAR YEARS



NOTE.—For data, see the table on p. 115.

within their boundaries, and the nature of their revenue systems. These obstacles and the means by which they can be overcome or circumvented will be examined in terms of the record of State and local fiscal practice during the period between the wars.

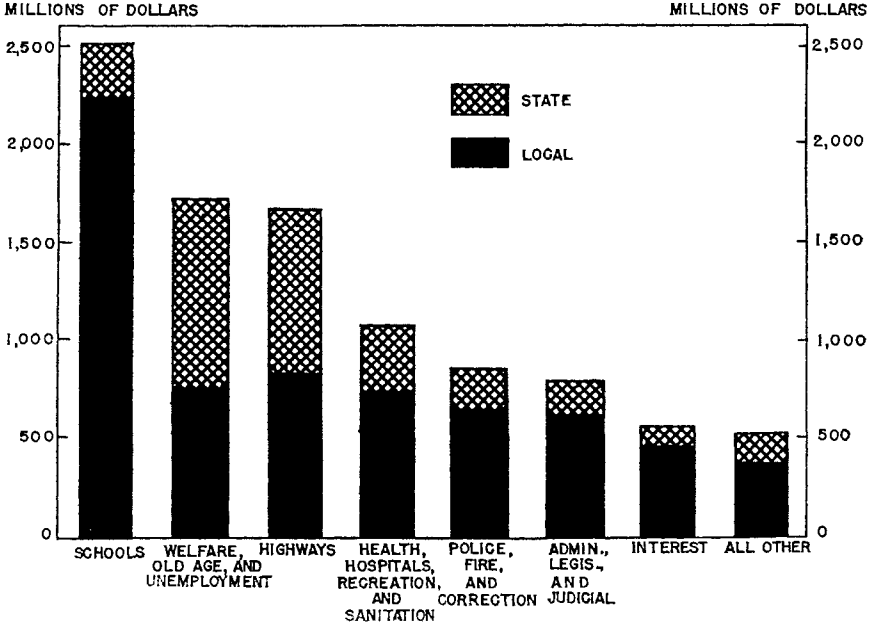
FUNCTIONS OF STATE AND LOCAL GOVERNMENTS

State and local units of government have financed and administered a far wider range of public services during the past two decades than has the Federal Government. In considerable measure this is due to the fact that the States and the 165,000 local governments are political institutions through which popular control of taxation and expenditure policies is most directly and intimately exercised. The very character of the State and municipal governments, concerned as they are with such daily needs and requirements of citizens as the education of children, transpor-

tation, water and sanitary facilities, police and fire protection, and a variety of miscellaneous functions of lesser fiscal importance, brings these levels of public administration into frequent and close contact with the citizenry.

The States have created large numbers of local governments of diverse types and character and with varying restrictions have delegated to these units many important functions. This has made possible a degree of diversity both as to character and extensiveness of government service, as is indicated by the wide variety of services and range of costs within the individual States. Delegation of authority has also created in government services conditions of disparity that are incompatible with present concepts of collective responsibility for the health, education, and welfare of the population generally.

PURPOSES OF STATE AND LOCAL EXPENDITURE – 1941



NOTE.—For data, see the table on p. 104.

Although provisions for the existence and continuation of many of these local units are written into State constitutions, the overwhelming majority of them are subject to the authority of the State legislatures and

may be abolished, have their powers expanded or contracted, or have their boundaries altered as legislative wisdom dictates. By the creation of special-purpose units of government, legislatures in many States have taken the responsibility for performing new and rapidly growing functions from the established general-purpose units. The specialized functions most often so treated are education, road construction and main-

EXPENDITURES OF STATE AND LOCAL GOVERNMENTS, BY FUNCTION, 1941
(Dollar items are in millions)

Function	State	Local	Total	Percentage distribution of total
Cost payments—Total[1]	**$3,072**	**$6,637**	**$9,709**	**100.0**
Schools	274	2,238	2,512	25.9
Highways	848	823	1,671	17.2
Old age and unemployment insurance	486	3	489	5.0
Welfare	485	740	1,225	12.6
Health and hospitals	315	284	599	6.2
Corrections	86	65	151	1.6
Sanitation	...	291	291	3.0
Police and fire	131	581	712	7.3
General administrative, legislative, and judicial	190	601	791	8.2
Interest	111	456	567	5.8
Recreation	15	171	186	1.9
All other	131	384	515	5.3
Debt retirement[2]	**238**	**615**	**853**	. . .

SOURCE.—U. S. Department of Commerce, Bureau of the Census, *Financing Federal, State and Local Governments: 1941*, p. 54. This table includes payments from funds received from other governments.

[1] Excludes net addition to reserves of 544 million dollars, for old age and unemployment insurance, and 142 million for contributions to pension funds.

[2] Not included in the total.

tenance, provision for sanitary facilities and recreation, and a variety of functions of a semi-public nature.

The quantitative significance of State and local expenditure is indicated in the accompanying table and chart. Education is the largest single item in the combined State and local budget. Welfare expenditures, including benefit payments for the unemployed and pension payments for the aged, dependent children, and blind, were in 1941 roughly equivalent to the costs of constructing and maintaining highways, streets, and alleys. These three main functions accounted for 60 per cent of State and local expenditures.

STATE AND LOCAL TAX SYSTEMS

Until World War I, the property tax was almost the exclusive source of revenue for both State and local governments. With the advent of the automobile the States expanded their revenues by the adoption of highway user taxes; as a consequence of the collapse in real estate values during the thirties and the expansion of State services in the field of relief and social security, the States rapidly diversified their tax systems so as to become relatively independent of the property tax, leaving this source of revenue to the localities. Abandonment by the States of their levies on property occasioned little relief to either taxpayers or the local units, because of the far greater importance of the remaining local rates. The localities continued to suffer the disadvantages of a tax system inadequate to meet steadily increasing demands for public services. Moreover, few local units were able to develop new independent revenues capable of making significant contributions to their fiscal requirements. In consequence, localities generally are restricted to the property tax, a levy which is admirably suited in many respects to the characteristics of local government but which has most unfortunate features from the standpoint of flexible and responsive fiscal policy.

Sources of Taxes. Typically, the property tax is used to defray the cost of the more stable and unvarying demands for government service: for debt charges, for general administration, for police and fire protection, for sewerage and sanitation facilities, for a portion of road services, and for schools. As a result, the sums required from the property tax are not subject to large year-to-year changes. On the other hand, the base against which the tax is levied—largely real estate—fluctuates rather sharply in value over a period of several years. This combination of circumstances results in effective property tax rates increasing sharply in depression and decreasing in prosperity.[1] Furthermore, even if local governments had other sources of revenue, existing administrative mechanics of the tax would make it a virtual impossibility to adjust the rates quickly enough to stabilize property tax burdens. In most States assessment and levy dates precede the collection period by 12 to 18 months and, typically, the assessments on real estate stand for a period of at least three to five years.

[1] The almost universal practice of undervaluation of property for assessment purposes enables assessment officials to maintain assessed valuations at constant levels through periods of wide fluctuation in real estate values; thus, the nominal tax rates remain relatively stable. As the market value of the property changes, however, the effective tax rate—that is, the ratio of the tax paid to the market value—changes in the opposite direction.

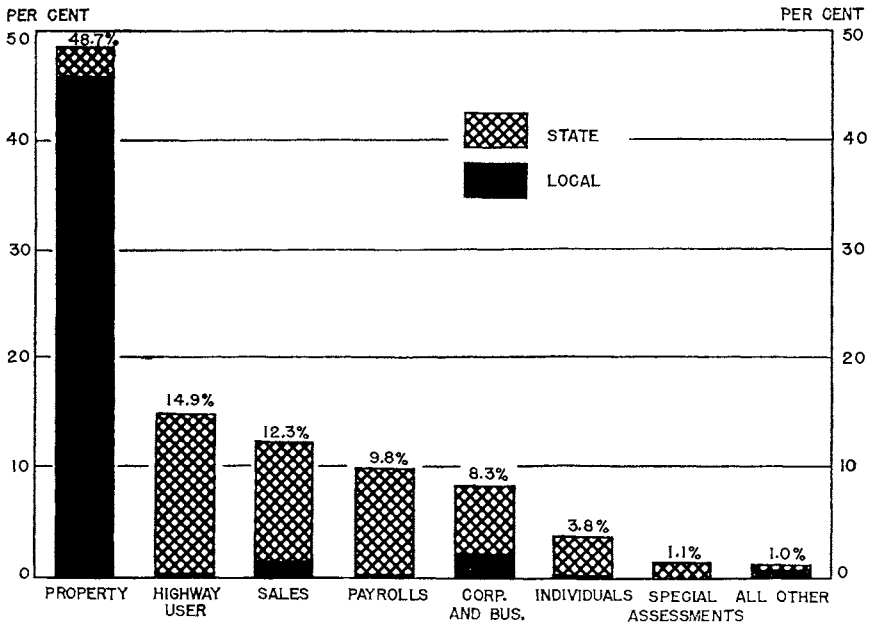
Such inflexibility in the only important source of revenue of localities suggests that important changes in the administrative characteristics of the tax must be made before the tax policy of these units can be made to further rather than obstruct a more flexible over-all fiscal policy. These changes would require some such device as a replacement grant by the Federal Government for property tax revenues in depression, and the use of quarterly or monthly pre-billing with periodic settlements when revenue requirements are definitely determined. Local governments also derive minor revenues from business licenses, utility franchise taxes, special assessments, and a large variety of miscellaneous fees. Few of these have fiscal significance excepting in particular localities and, with the exception of special assessments, none seems to have the attributes essential to a flexible fiscal policy.

The States are usually regarded as somewhat more fortunately situated with respect to their revenue systems than are their subdivisions. Within constitutional provisions of varying restrictiveness, they can impose a great variety of taxes if they so desire. In the past two decades, however, they have confined further development of sources of revenue almost exclusively to the field of general and selective sales taxes. The method adopted for financing unemployment compensation has also provided an important addition to the regressive character of State tax systems, and as a result at least two-fifths of State revenues can be regarded as coming from the least satisfactory revenue alternatives from the standpoint of equity and fiscal policy.

The sources of State and local revenues in the fiscal year 1941 are set forth in the chart and table following. It will be noted that taxes on individuals (personal net income, inheritance, estate and gift levies) are of nominal importance, comprising 4 per cent of the total yield and 7.5 per cent of the State yield. Constitutional provisions have prevented the imposition of personal income taxes in some States, and by and large this source of revenue has been neglected by most of the States during the past two decades in favor of sales taxes. These levies, apart from the highway user taxes, were adopted during the thirties when, because of acute financial embarrassment and strained credit resources, the States placed a considerable premium on stability of yield and frequency of payment. Under the circumstances, excises came closest to meeting what the States regarded as their fundamental requirements. Whether or not State tax systems will become more or less dependent upon these sources in the future is problematical, but having incorporated excises into their sys-

tems, the States probably will not be inclined to discard them.[2] One important sales tax is on motor fuel and it is regarded as an effective means for apportioning the cost of highway service.

SOURCES OF STATE AND LOCAL TAX REVENUES – 1941



[NOTE.—For data, see the table on p. 108.

Aggregate Revenue. As may be observed in the table on page 115, the annual revenue collected by local government units has far exceeded the amount collected by States through the mid-thirties and is still the larger figure. During the twenties and thirties, with the exception of the aftermath of World War I, local revenues also exceeded those of the Federal Government. Local revenues rose from 3.1 billion dollars in 1920 to

[2] Many considerations not susceptible to appraisal account for the failure of States to expand their dependence on net income and death taxes. Regularity and stability of yield were important and timely factors when new revenues were being adopted and before the withholding device for income taxes had been used by the Federal Government. Exploitation of the fields of personal taxation by the Federal Government and resistance to demands for a Federal sales tax no doubt diverted the same pressures into the State field. Problems of multiple taxation, particularly in death levies, may have had some bearing on the choice. Fear of repelling wealthy residents was also important. In certain States, such as Florida, freedom from inheritance and personal income taxes was advertised as an advantage of residence.

TAX REVENUES OF STATE AND LOCAL GOVERNMENTS, 1941[1]
(Dollar items are in millions)

Source and type of revenue	State[2]	Local	Total	Percentage distribution of total
Total	**$4,507**	**$4,708**	**$9,215**	**100**
Property	**268**	**4,224**	**4,492**	**49**
Sales and gross receipts	**1,033**	**98**	**1,131**	**12**
General sales	575	66	641	7
Alcoholic beverages	216	...	216	2
Tobacco products	107	(3)	107	1
Public utility receipts	90	...	90	1
Miscellaneous excises	45	32	77	1
Pay rolls	**901**	**5**	**906**	**10**
Corporation and business	**586**	**181**	**767**	**8**
Corporate net income	197	2	199	2
Corporate license and privilege	79	40	119	1
Insurance premiums	98	...	98	1
Alcoholic beverages	58	35	93	1
Severance and other	154	104	258	3
Individuals	**343**	**3**	**346**	**4**
Net income	225	2	227	3
Inheritance, estate and gift	118	1	119	1
Highway user	**1,346**	**31**	**1,377**	**15**
Motor vehicle fuels	913	7	920	10
Motor vehicle licenses and operators	433	24	457	5
Special assessments	...	**102**	**102**	**1**
All other	**30**	**64**	**94**	**1**

[1] Adapted from U. S. Department of Commerce, Bureau of the Census, *Statistics of States, 1941*, and *Financing Federal, State and Local Governments, 1941*.

[2] The amounts include local shares of State collected taxes.

[3] Less than $500,000.

6.3 billion in 1931. After a decline for two years they remained stable at a new high in the vicinity of 5.5 billion dollars.

In 1920 the States collected 800 million dollars; by 1930 this amount had much more than doubled. Most of the increased revenue came from highway users' revenues—motor vehicle licenses and motor fuel taxes—and increased business taxes. Net income taxes on individuals, property taxes, and inheritance taxes accounted for the remainder of the increase. During the thirties the revenue collected by the States again more than doubled. In 1940 nearly 4.5 billion dollars were collected as compared with 2.1 billion in 1930. General and selective sales taxes accounted for roughly one-third of the increase, unemployment compensation taxes

for another third, and highway user and net income taxes for the rest. The revenue from levies on property and from inheritance and gift taxes declined significantly during the decade.

GRANTS-IN-AID AND SHARED REVENUES

Grants-in-aid and shared revenues have assumed an important role in intergovernmental fiscal relations. The States are both grantors and grantees in this relationship, *i.e.*, they receive substantial sums from the Federal Government for specified programs and they disburse even larger amounts to the local units—again largely for expenditure on particular

GRANTS-IN-AID AND SHARED REVENUES, BY FUNCTION, 1941
(In millions of dollars)

Federal Government to States		States to localities	
Function	Amount	Function	Amount
Total	**744**	**Total**	**1,673**
Education:		Education:	
Vocational education and rehabilitation; defense training; agricultural colleges, experimental stations, and extension	113	Elementary and high schools	700
Public assistance:		Public assistance:	
Old age assistance, aid to dependent children, aid to blind, child welfare	331	General relief, old age assistance, aid to dependent children, aid to blind	421
Highways	168	Highways	336
Health and hospitals:		Health and hospitals:	
Crippled children, maternal and child health, venereal disease control, public health	24	Crippled children, maternal and child health, venereal disease control, public health	10
Employment security:			
Unemployment compensation administration and public employment offices	66		
Other:		Other:	
Conservation	42	Conservation	16
Unspecified purposes	...	Unspecified purposes	190

SOURCE.—U. S. Department of Commerce, Bureau of Census, *Statistics of States, 1941*.

functions. The Federal Government is the recipient of neither State nor local aid, and the local units make few payments to the States that are not properly regarded as reimbursements for special services.

The aggregate of major grants-in-aid and shared revenues for the year 1941 is indicated in the table on page 109. It will be noted that Federal grants are largely for public assistance, highways, and education, and that these are also the major functions for which States use their funds to assist localities; there are, however, important differences in the specific activities aided, particularly in the field of education. All Federal aid is given for specified purposes, whereas the States in 1941 granted to localities approximately 200 million dollars which was unrestricted as to purpose of expenditure.

There has been a sharp upward trend in the amount of Federal and State aid during the period under review. In 1925 the Federal Government transferred nearly 114 million dollars to the States, and by 1941 this amount stood at over 6½ times the former total. Similarly, State aid to local governments in 1925 was approximately 500 million dollars; in 1941, it aggregated about 1,700 million dollars. These data reveal a pronounced tendency for the Federal and State governments to collect more taxes than needed for their own activities in order to finance other government functions under more localized direction. This arrangement enables the larger units of government to exert a decided influence over the amount and character of the expenditures of the smaller ones.

CREDIT RESOURCES OF STATE AND LOCAL GOVERNMENTS

Basically the borrowing capacities of the States and localities are functions of their respective revenue resources and they are thus limited in the same degree. They contrast vividly with the capacity of the Federal Government to incur debt since it possesses (in addition to extensive tax resources) control of the currency and credit system of the nation. For the vast majority of State and local governments, however, limitations on the use of government credit are measured not in terms of taxable capacity but of constitutional and statutory prohibitions, regulations, and restraints. These limitations for the most part are arbitrary and capricious in their operation and provide no real measure of the capacity of the government unit to service debt. Furthermore, debt administration in the States and localities has frequently been in the hands of officials who are inexperienced and inept in these matters. The debt record

of many State and local governments is such as to make the market for funds skeptical even of debt issues which can safely be purchased.

If the duration of a depression could be charted, many local governments could obtain the credit necessary to finance their deficits during the period of stress, but the very uncertainty of the situation makes them reluctant to seek such credit even if it were obtainable. Most large bond issues require time-consuming referenda before issuance, and the popular prejudice against issuance of debt for funding unpaid bills and for current operation is firmly established. Furthermore, much local debt is in the form of serial bonds that are paid on a fixed and unvarying schedule, thus making for an additional element of inelasticity in revenue requirements. In the present interrelations of Federal, State, and local governments one factor conducive to more favorable financing operations by the latter is the tax exemption extended to State and local securities under the Federal income tax. Because of this exemption a person in the higher income brackets needs to find an investment yielding upwards of 20 per cent to obtain yields equivalent to those available on tax-exempt securities of State and local governments. This creates a special market for State and local securities and materially lessens the interest burden but has little effect on the quantity of securities that may legally be issued because debt limitations are ordinarily expressed in terms of assessed valuations.

CYCLICAL CHARACTERISTICS OF GOVERNMENT FINANCE

The earlier analysis of the economic effects of government fiscal operations—expenditure, taxation, and borrowing—on the volume of production and employment develops the thesis that the cyclical characteristics of expenditure and of taxation have a vital bearing on the problem of making the maintenance of full employment an objective of fiscal policy.[3] For an indication of the quantitative aspects of these relationships, the fluctuations of public expenditures and revenues during the past two decades are examined below.

Local Expenditures. During the twenties and thirties, as indicated by the chart on page 113 and the table on page 115, the trend of local expenditures followed with some variation the major movements of general business activity. In the earlier decade from the recession in 1921 through 1929 there was an almost continuous expansion in general business ac-

[3] See Richard A. Musgrave, "Fiscal Policy, Stability, and Full Employment," pp. 1–21 of this pamphlet.

tivity. From 1921 through 1929 gross national product rose by 40.8 per cent whereas local disbursements paid from revenues (excluding grants) and borrowings expanded by 97.3 per cent. The growth in local government disbursements was quite regular since the expenditures in each successive year tended to exceed those of the preceding year.[4] The prosperous business climate set the stage for the acquisition of new facilities and for the adoption of a wider scope of activities. The larger expenditures, in turn, augmented the growing volume of general economic activity. In the years of precipitous business decline (1929–32), on the other hand, the contraction in disbursements lagged significantly, somewhat moderating the downward spiral. Since appropriations often precede actual expenditures by months or even by a year or more, such a lag is expected. Local officials, moreover, in many instances endeavor to complete the program initiated while in office and dislike the task of contracting services, for such action always arouses opposition. During the years of recovery (1933–40) and another period of general business expansion, the local units of government maintained after 1935 a relatively constant level of expenditures from their own revenue at about three-fourths of the 1929 peak year.[5] The increased expenditures for local facilities and activities came from grants initiated by both the State and the Federal governments.

State Expenditures. State expenditures during the period between the wars differ from either local or Federal spendings in that they have markedly and consistently expanded.[6] They rose at a fairly stable rate

[4] Since it was necessary to interpolate a large number of the annual figures on expenditures for local units of government given in the table on p. 115, this statement is based primarily on the following published data on net governmental cost payments of 146 cities with a population of over 30,000.

Year	Millions of dollars	Year	Millions of dollars
1922	1,984	1927	2,887
1923	2,066	1928	2,952
1924	2,305	1929	2,987
1925	2,549	1930	3,210
1926	2,652	1931	3,182

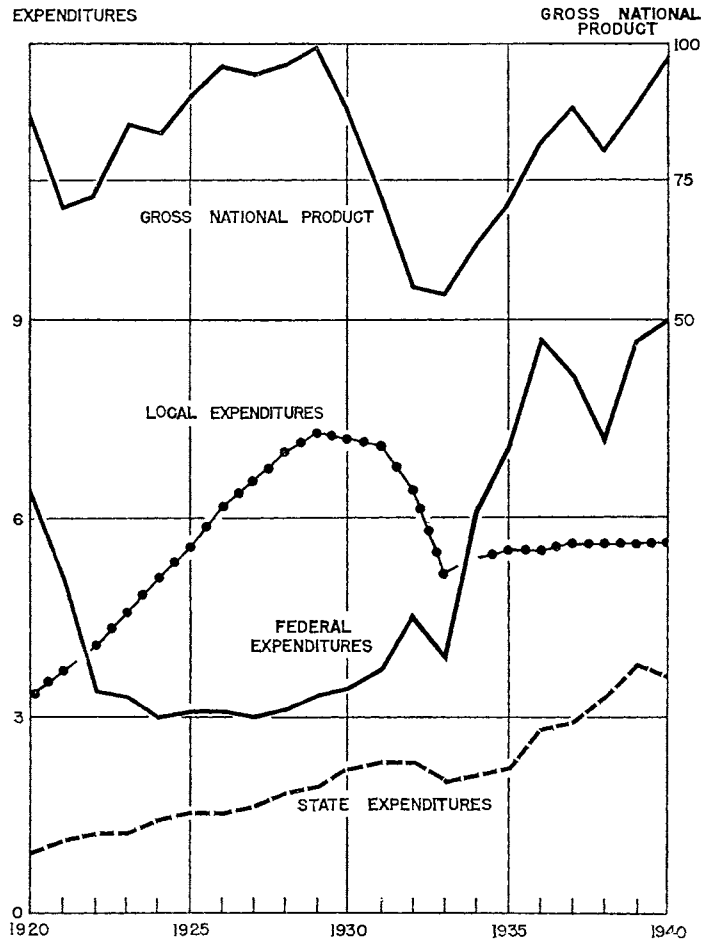
SOURCE.—U. S. Bureau of the Census, *Financial Statistics of Cities, 1931*, p. 28.

[5] It is difficult to draw any conclusions from a year-to-year comparison between local government expenditures and the gross national product, as the local expenditures (shown in the table on p. 115) represent fragmentary annual data and interpolations between the scattered years for which more complete data were available. Also, the fiscal years of local units of government vary widely. Even if such a comparison could be made, it would have little validity, for there is often a lag of months or even a year or more between the plans and appropriations for a new project and the actual outlay.

[6] For footnote, see opposite page.

EXPENDITURES PAYABLE FROM LOCAL, STATE, AND FEDERAL REVENUES AND GROSS NATIONAL PRODUCT, 1920-1940

(IN BILLIONS OF DOLLARS)



NOTE.—For expenditures payable from government revenues see the table on p. 115. The data for gross national product are those prepared by Mary S. Painter and published in "Estimates of Gross National Product, 1919–28," *Federal Reserve Bulletin*, September 1945, p. 873.

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[6] This holds also for the amount of revenue collected, as may be observed in the table on p. 115. It is true also of net indebtedness incurred, as indicated by the following figures:

Year	Millions of dollars	Year	Millions of dollars
1922	834	1928	1,585
1924	1,130	1930	1,833
1926	1,328	1931	1,977

SOURCE.—U. S. Bureau of the Census, *Financial Statistics of States, 1931*, p. 31.

through the entire period, with the exception of the years 1932 and 1933. From 1920 through 1931 the increase was two and one-half times, and, following the two years of leveling off and decline, the expansion by 1941 had more than doubled the disbursements as measured by the 1933 level. This steady growth in State expenditures moderated somewhat the depressed business conditions in the thirties.

Cyclical variations in State disbursements have been minor and of little influence on the cyclical swings in the private sector of the economy. The contraction, even in 1932 and 1933, was relatively insignificant.

Federal Expenditures. Federal expenditures have followed a course generally counter to that of gross national product and at variance with the cyclical contours described above for local and, to a lesser extent, for State governments. During the middle twenties expenditures reached a low point and then rose gradually until 1933. To alleviate the distressed conditions caused by the low level of employment in the early thirties, expenditures were augmented rapidly, reaching a peak in 1936. After a two-year decline they again rose sharply and to new peacetime heights. The cyclical variations in Federal and local government disbursements tended to neutralize each other over the two decades, as is revealed in the chart on page 113. The large Federal appropriations to stimulate business during the early thirties did little more than offset the contractions in local expenditures following 1931. By 1935, however, both State and Federal expenditures were expanded enough to counterbalance the contraction in local outlays and to raise the aggregate volume of government disbursements materially above levels attained in the past.

Public Construction. Most of the expenditures made by local and State governments are for functions which require relatively inflexible operation and maintenance charges: education, welfare, health, sanitation, and police and fire protection. Public construction, on the contrary, is a major type of expenditure which is readily expanded or contracted from year to year. These capital outlays are important outlets for investment. Since changes in the rate of investment are a dominant cause of the major swings in the business cycle, public construction may be used to aid in stabilizing general business activity and employment.[7]

For this purpose the volume of public construction must be planned well in advance and timed to offset the oscillations of private business.

[7] For a discussion of the role of investment in the business cycle, see Alvin H. Hansen, *Fiscal Policy and Business Cycles* (1941), p. 250.

Annual Expenditure and Revenue of Local, State, and Federal Governments, 1920–1943[1]

(In billions of dollars)

Calendar Year	Total		Local		State		Federal	
	Expenditures	Revenue	Expenditures[2]	Revenue[3]	Expenditures[4]	Revenue[5]	Expenditures[6]	Revenue[7]
1920	10.6	10.6	3.3	3.1	0.9	0.8	6.4	6.7
1921	9.9	9.7	3.7	3.2	1.1	0.9	5.1	5.6
1922	8.7	9.2	4.1	4.0	1.2	1.1	3.4	4.1
1923	9.1	9.3	4.6	4.2	1.2	1.1	3.3	4.0
1924	9.5	9.8	5.1	4.5	1.4	1.3	3.0	4.0
1925	10.2	10.0	5.6	4.8	1.5	1.4	3.1	3.8
1926	10.8	10.6	6.2	5.1	1.5	1.5	3.1	4.0
1927	11.2	11.1	6.6	5.4	1.6	1.6	3.0	4.1
1928	11.9	11.5	7.0	5.7	1.8	1.8	3.1	4.0
1929	12.5	11.7	7.3	5.8	1.9	1.9	3.3	4.0
1930	12.8	12.5	7.2	6.2	2.2	2.1	3.4	4.2
1931	13.1	11.6	7.1	6.3	2.3	2.1	3.7	3.2
1932	13.2	10.0	6.4	6.0	2.3	2.0	4.5	2.0
1933	11.1	9.9	5.2	5.7	2.0	2.1	3.9	2.1
1934	13.5	11.1	5.4	5.7	2.1	2.3	6.0	3.1
1935	14.7	12.4	5.5	5.8	2.2	2.8	7.0	3.8
1936	17.0	13.0	5.5	5.7	2.8	3.2	8.7	4.1
1937	16.7	14.1	5.6	5.6	2.9	3.5	8.2	5.0
1938	16.1	15.4	5.6	5.5	3.3	4.0	7.2	5.9
1939	18.1	14.7	5.6	5.4	3.8	4.1	8.7	5.2
1940	18.2	15.2	5.6	5.4	3.6	4.4	9.0	5.4
1941	22.5	17.8	5.6	5.9	4.2	4.3	12.7	7.6
1942	41.4	23.1	4.6	5.7	4.4	4.6	32.4	12.8
1943	87.1	32.8	4.6	5.7	4.3	4.8	78.2	22.3

[1] Intergovernmental transfers were treated as expenditures of the jurisdiction making the transfer. Debt repayments are excluded from expenditures.

[2] Expenditures for 1920, 1925, 1930, 1931, 1933, 1934, and 1935 were secured from Carl Shoup *et al.*, *Facing the Tax Problem* (1937), p. 100 as revised. Those for 1932 and 1941 are from *Statistical Abstract of the United States*, and for 1942 from *Extracts from Governmental Finances in the United States: Census of Governments, 1942*, U. S. Summary; both sources are issued by U. S. Bureau of the Census. For other years estimates were made from a logarithmic curve drawn on the basis of the available data.

[3] Revenue for 1932 and 1941 were taken from *Statistical Abstract of the United States*, and for 1942 from the *Census of Governments*, The Local Revenue. The annual tax collections of local governments from 1920 to 1943 were estimated by the Tax Institute in *Tax Policy*, November 1943, p. 3. The ratios between tax collections and total revenues in 1932, 1941, and 1942 were used to inflate the tax collections to include other revenue.

[4] Cost payments from 1922 to 1932 and from 1937 to 1943 were taken from the U. S. Department of Commerce, Bureau of the Census, *Financial Statistics of States*. The grants secured from local and Federal governments were subtracted. Cost payments for 1920 and 1921 were interpolated. Those from 1933 through 1936 were estimated on the basis of the figures presented by Carl Shoup, *et al.*, *op. cit.*, p. 100. Local shares of State collected revenues, included in the original data beginning with 1940, were excluded here.

[5] For sources and procedure, see note (4) above.

[6] U. S. Treasury Department, *Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ending June 30, 1943*, Table II, pp. 468-71. The figure excludes debt retirement.

[7] *Ibid.*

Unless this condition is satisfied, construction initiated by local and State governments may well accentuate (as it so often has done in the past) rather than moderate the amplitude of business cycles.[8] In 1929, municipal governments spent 2.2 times as much for new public construction as in 1920; the rate of expansion in the decade exceeded greatly the rise in the gross national product.[9] Following 1930, these expenditures dropped rapidly as private business contracted, and by 1933 capital outlays were approximately one-fifth of the comparable aggregates for the peak years of the latter twenties. It was not until 1938 that expenditures again approached those of the preceding decade. The expenditures initiated by State governments for new public construction followed a similar course. Accordingly, local and State governments absorbed a large volume of employment during the prosperous years of the twenties when private business was in a position to employ nearly all potential workers, and added noticeably to the army of unemployed during the thirties.

The Federal Government, by accident or choice, has followed a counter-cyclical course in its expenditures for new public construction. From 1920 through 1929 this activity was at a low ebb. As the volume of business in the private economy declined in the early thirties, these expenditures, including those for work relief, were increased rapidly. The policy had a stabilizing influence on employment. As in the case of total disbursements, however, the expansion and contraction in Federal expenditures for new public construction did little more than offset the fluctuations in such expenditures initiated by State and local governments. Not until 1936 did the aggregate government expenditures for new public construction equal those of the peak year 1930. Thus, a major part of the large Federal appropriations for construction during the thirties merely replaced those which had been made during the former decade by the States and local units. Failure of the State and local governments to recognize the economic effect of their fiscal policies on public investment and their inability to adopt counter-cyclical timing for new public construction activities enlarge the problem of achieving economic stability confronting the Federal Government.

Financing Government Expenditures. The cyclical fluctuations of

[8] There is, however, a lag of nearly two years between the trend of new public construction activity and of the general business cycle.

[9] This analysis is based upon Department of Commerce data for local, State, and Federal government expenditures for new public construction, 1920–38, published in *Construction Activity in the United States, 1915–37*, p. 19 and "Recent Developments in Construction Activity," *Survey of Current Business*, August 1939, p. 12.

government expenditures have had a greater effect on the economy than appears on the surface. During the twenties a large share of State and local expenditure was financed by borrowing. The effect of deficit financing is to disburse more income than is collected in taxes. In the thirties, as a result of depressed business conditions, a contrary fiscal policy was adopted by the States and localities in many instances to liquidate the indebtedness contracted during the preceding decade. In the retirement of public debt, tax collections took more income from individuals in lower income classes than was disbursed to them. Debt repayment to bondholders, which as a group may be expected to retain the proceeds as savings rather than spend them on consumption, reduced the demand for privately produced goods and services. The net effect on the private economy of the transfer of funds from individuals in lower to those in higher income classes was deflationary, since in these years there were fewer opportunities for profitable investments to offset reduced consumer expenditure.

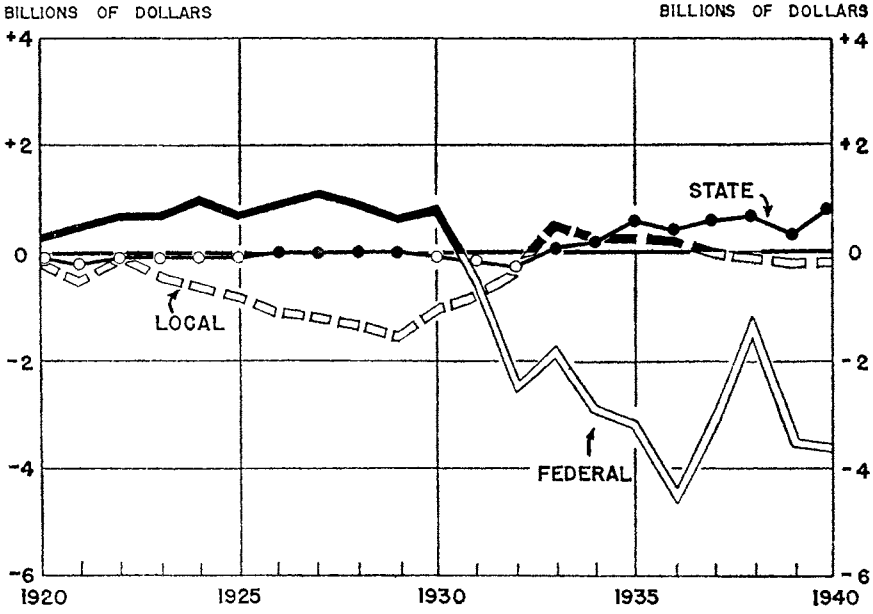
It is apparent that not only the amount of taxation as distinguished from borrowing is significant but also the kinds of taxes employed. If tax systems tapped the same sources as borrowing, the economic effects would be similar; but the State and local systems in particular derive their main support from property, pay-roll, and excise taxes, all of which are regressive and restrict consumer expenditure. At no time in the past two decades have economic resources been so fully employed and inflationary pressures so strong as to warrant the dominant position of such taxes in the over-all tax system as a whole. Obviously even the prewar scale of government expenditure could hardly have been financed exclusively out of personal income taxes on the high brackets, but a better balanced revenue system in terms of its effect on the full utilization of the nation's economic resources would have drawn a smaller tax contribution from the lower income groups.

The net effect on the economy of the fiscal policies of the three tiers of governments is revealed clearly by an examination of their annual surpluses or deficits. These measure the excess (positive or negative) of taxes and other collections from individuals and businesses over payments by governments. Expenditures comprise the payments made for goods, services, pensions, interest, and grants to other units, and revenue is the total tax and miscellaneous collections from the unit's own resources. Borrowings and debt repayment are obviously excluded. The surpluses and deficits shown are not accumulated balances as of given dates but

annual additions to or deductions from a hypothetical surplus account that result from revenue raising and expenditure operations.

Local Deficits and Surpluses. Local governments, as may be observed from the following chart, incurred continuous deficits from 1920 through 1932. These annual deficits ranged from 100 million dollars to 1,500

ANNUAL SURPLUSES OR DEFICITS OF LOCAL, STATE, AND FEDERAL GOVERNMENTS, 1920-1940



NOTE.—Surpluses and deficits are the differences between revenue receipts from taxes plus miscellaneous earnings and expenditures for government activities. Neither revenues from borrowing nor expenditures for debt repayment are taken into account. For basic data, see the table on p. 115.

million. From 1933 through 1936 these government units accumulated surpluses ranging from 200 million dollars to 500 million. In the latter thirties they again incurred deficits. From these data it is evident that the pattern of local income and outlay augmented the disposable income of individuals in the twenties when it was already high owing to prosperous business conditions, and, due to the lag between appropriations and actual expenditures, it bolstered up the declining income during the early depression years. The net effect of such a fiscal policy is to accentuate the amplitude of the prosperous phase of the general business cycle and reduce somewhat the amplitude of the depression phase.

State Deficits and Surpluses. The fiscal policy of State governments has had a similar effect. From 1920 through 1932 they incurred annual deficits and in subsequent years accumulated surpluses. The deficits in the former decade, however, were smaller than those incurred by local units, and the surpluses in the latter decade rose with the improvements in business conditions. Consequently, State policy has had less influence on cyclical swings of private business than has that of the local units.

Federal Deficits and Surpluses. The trend of surpluses and deficits of the Federal Government has been decidedly counter to the general business cycle. During the twenties an average annual surplus of 800 million dollars was accumulated, while during the thirties deficits averaging 2,700 million were incurred. Surpluses and deficits computed on the basis of aggregate expenditures and revenues of all three levels of government reveal deficits for all of the years studied with the exception of 1922–24.

Summary. The cyclical swings of local government expenditure are in rough conformance with those of the whole economy. Periods of business prosperity are accompanied by conditions favorable to the expansion of local services and investment; collections from property taxes are high and the market is especially favorable for the issuance of lower grade municipal bond flotations that may of necessity have been postponed due to the combination of an unfavorable market and statutory regulation of sale price and coupon rate. As a result, local political units widen the scope of their services. Schools, fire stations, hospitals, and other public buildings are erected; streets are improved; parks and playgrounds are developed; water and sewage systems are installed or extended. On the other hand, during depressed times localities are forced to contract their activities. Property tax delinquencies rise sharply and the market is unfavorable for issuing bonds.

State governments are in a much better position than local governments to maintain their scale of services in depression periods. They have a wider choice of taxes and their credit is more stable. Over the past two decades the small cyclical swings of their annual expenditures have had less influence on fluctuations in general business activity.

The course of annual Federal expenditures has been largely counter to the trend of aggregate spending in the economy as a whole. During the twenties such expenditures declined significantly and remained at a relatively low level until the early thirties, after which they expanded rapidly. The fluctuations in these expenditures have exerted a stabilizing influence.

GEOGRAPHIC DISPARITIES IN WEALTH, INCOME, AND NEED FOR GOVERNMENT SERVICES

The Federal Government serves areas having widely different requirements for service and equally divergent capacities to pay taxes. By and large, however, it can attain relative uniformity in the services it supplies directly, and it collects tax revenues in conformance with standards of nation-wide application. State governments, although not typically confronted with as great a disparity in requirements for service or capacity to support it, have the kinds of functions to perform which raise the issue of State-wide uniformity in standards. They continuously face the task of finding objective criteria of need for service that can be used to establish minimal requirements. Or they may be called upon to evaluate equalization proposals which often rest on the assumption that a certain level or minimum of dollar expenditure is to be preferred to the flexibility inherent in a system which leaves the level of expenditure in large degree to the discretion of local government officials.

The three levels of government in the United States exist in recognition of the fact that a large number of problems in a given area can best be solved by the people of that area, rather than by directions from elsewhere; that the various areas are sufficiently different from one another to have peculiar problems of their own; and that in general freedom can be made more secure by not concentrating too much power in the hands of a central government. But this argument can be given too much weight; carried to the extreme, opportunities which should be available to citizens generally are limited to residents of areas with adequate taxable resources.

Our well-being is largely based on unfettered interstate commerce. Profits made by a New York corporation may arise from the purchase of raw materials in Mississippi, processing in Nebraska, and the sale of finished goods in Oregon. Wealth and income are created by a process in which the whole country participates, but they are distributed very unevenly among the States and within the States. A number of the States, particularly in the Southeast, find themselves unable to perform most essential services.

The essence of the problem lies in the fact that the government unit which, for reasons of tradition or efficiency, is regarded as best fitted to perform a certain function, is not necessarily the one which can most conveniently raise the funds to finance that function. In many cases it cannot raise the funds at all.

This disparity is created by two sets of forces. Most important is the growing recognition that the nation can well afford to furnish every individual with a certain minimum of service in such fields as education, public health, and welfare, irrespective of the individual's own wealth and income, or of the wealth and income of his community or State. But many States and communities do not possess the resources from which taxes can be raised to pay for these services. It is well known that wealth and income are spread very unevenly both among the several States and within the States. Thus, per capita income payments in 1941 ranged from $1,101 in the District of Columbia and $1,059 in Connecticut to $283 in Mississippi, the richest States having almost four times as large a per capita income as the poorest one. Such disparities are bound to exist for some time to come, and the problems created by them cannot be solved by tax measures alone.

The second factor is of a more technical nature. The smaller government units encounter greater difficulty in utilizing for revenue raising purposes the wealth and income located in their territories. Often they can do so only through regressive and repressive taxes.

Our 48 States present striking contrasts. The differences in their industrial structures and in economic development are reflected in the differences in public expenditures for education and welfare in 1941. The amount spent on *five* students in Arkansas or Mississippi was not sufficient to educate *one* student in New York or California. Monthly expenditures per recipient of public assistance went as high as $32.52 in California and $31.24 in New York, and as low as $7.28 in Alabama and $6.72 in Arkansas. Many other examples of similar disparities can be easily given.

It should be made clear that inadequate services in the poorer States do not arise from the unwillingness of these States to utilize their tax resources. As a matter of fact, tax collections as a percentage of income payments are on the whole somewhat higher in the poorer than in the richer States. It is the absence of wealth and income to be taxed that constitutes the core of the problem.

The relative poverty of some States is usually explained by the scarcity of valuable resources, the under-development of those resources which are present, and shortage of capital. Two other factors should be added: first the low health and educational standards of the population; secondly, the fact that all these causes are cumulative and that they mutually reinforce one another. Undeveloped resources mean poverty; poverty breeds

ignorance and disease. A poorly educated and not too healthy labor force will obstruct full development of resources.

FULL EMPLOYMENT AND STATE AND LOCAL FISCAL POLICIES

The components of fiscal policy for State and local governments which would contribute to economic stability and full employment are: (1) a desirable pattern of public expenditure involving (a) a degree of flexibility which will permit counter-cyclical expenditure to offset in part at least contraction or expansion in the economy generally, and (b) a minimum level of government service throughout the nation that will insure a healthy, well educated and equipped population capable of fully utilizing the country's resources; (2) a tax system which is flexible in the same respect as the pattern of expenditure and which is neither restrictive nor likely seriously to distort the allocation of economic resources.

The attainment of these objectives by any substantial number of State and local governments is difficult, if not impossible, unless they have the assistance and guidance of the Federal Government. A compensatory policy of expenditure implies substantial credit resources which are available to neither State nor local units. It also implies a unity of fiscal policy so far as the major units of government are concerned. A single State or local government can do little to combat the forces of depression because so much of its expenditure—whether it be for maintaining a predepression level of public expenditure or an expanded program of public works—tends to be dissipated over a larger area than that which the unit serves. The ensuing leakage in the direct and indirect effects of an expenditure policy which is out of step with the private economy and that of other government units would shortly exhaust the resources of the government in question without having accomplished the intended economic effects. Indeed, all State and local governments acting in harmony would hardly furnish the necessary stimulus on a retarded private economy unless their efforts were supplemented by those of the Federal Government, which possesses the requisite credit controls and instruments of financial policy. Only the Federal Government has the ultimate resources to stabilize the level of State and local expenditure. In one manner or another such resources must be provided if these governments are to contribute to national economic stability and full employment. Similarly, support of a minimum of government expenditure to maintain a healthy, efficient population lies beyond the fiscal capacity of many local governments. Their resources must be supplemented, at least during a period of economic

development, by taxes from wealthier communities. Finally, the use of fiscal policy as an aid in combating economic instability entails a large program of public education and economic guidance. Responsibility for these functions rests primarily with the Federal Government, particularly in the formulation of general economic policy. The educative task involved in public acceptance of the policy of maintaining expenditures in the face of shrinking revenues or reducing them when revenues expand is one in which the State and local governments may well share. Government fiscal policy in relation to a full employment policy must have general public understanding and acceptance if it is to be an accepted criterion in determining the financial policies of State and local governments.

Obstacles to Counter-Cyclical Policy for State and Local Governments. The earlier review of the revenue raising, spending, investment, and borrowing practices of the State and local governments during the period between the wars indicated that in the main the financial practices of these governments have tended to aggravate rather than alleviate cyclical swings in business and employment, and that the mildly counter-cyclical fiscal policy of the Federal Government has been in considerable measure offset by State and local financial management.

To what extent do State and local governments have real alternatives in their fiscal management which permit policy makers to consider the effect of government finance on fluctuations in economic conditions? Until recently, few of the States, if any, and certainly none of the local governments, have given much consideration to the contribution that their fiscal policies could make to attaining a higher degree of economic stability. In the selection and use of revenue alternatives, the timing of expenditure, and new construction, they have been little influenced by the effect of these operations on the economy generally. Rather, policy has turned on questions of a statutory, constitutional, or political nature. The extent to which these levels of government can give any real consideration to adopting a compensatory fiscal policy depends in large measure upon the nature of the services which they render, the character of their tax systems and the economic resources on which they depend, their credit position, and the institutional framework in which they operate.

It is apparent that many important demands for government service are completely unassociated with swings in business conditions but depend upon a variety of unrelated factors. For example, education is one

of the largest expenditure fields, and within it the cost of elementary and high-school facilities and instruction is of overwhelming importance. Education should be relatively unaffected by conditions of prosperity or depression. Its cost depends upon the school population and the quality and amount of instructional service that the community desires to render. It is not likely that any community would wish to circumscribe such services in times of prosperity or expand them in times of depression.

Similarly, in the field of welfare expenditures there are large segments which are either completely or relatively unrelated to changes in economic conditions. This is particularly true for institutional care of all kinds, including hospitals, mental and correctional institutions, aids to the blind, and, to a lesser degree, dependent children and the aged. Only in the field of general relief arising out of unemployment does there appear to be an opportunity for a large range in State and local expenditures, and even this is not likely to assume the proportions characteristic of the thirties because of the development of social security programs for the aged and unemployed.

In the field of highway and street construction and maintenance, there exist larger possibilities for timing of expenditure. Maintenance programs and policing of streets and highways are relatively inelastic, but major construction programs theoretically can be expanded and contracted to have a counter-cyclical effect. The opportunities in this regard, however, are circumscribed by the political problems of holding down such expenditures in prosperous times and having available resources to carry them on in depressed periods.

Taking the field of expenditure as a whole, State and local governments, if unaided, have limited opportunities to adjust their programs so as to minimize cost payments in prosperous times and maximize them in depressed times. The fields in which this policy can even theoretically be accomplished have been limited mainly to construction of such public improvements as highways, water and sewerage systems, and to a lesser extent, in welfare. It is, of course, possible to undertake substantial expansion of State and local services with Federal subsidy inducements in depressed times, but to the extent these enlarged services cannot be discontinued in prosperous times because the demand for them continues, the policy is not counter-cyclical but is only one of steadily enlarging the scope and character of government service.

Taxing and borrowing policies offer even less opportunity for independent State or local action than expenditure policies. Though in

recent war years many States have pegged their tax rates at the level established late in the thirties and thus have accumulated surpluses, it does not follow that they could be persuaded to refrain from increasing (let alone to reduce) excise rates, for example, in times of depression. To pursue such a policy they need far larger credit facilities than they now possess, or substantial grants from the Federal Government to maintain services.

Other barriers to compensatory fiscal policies on the part of the States and local units are related to their institutional characteristics. Local government is widely decentralized, and its fiscal policies as well as those of many of the States depend upon points of view and backgrounds of hundreds of thousands of part-time officials, legislators, and citizens. The framework in which these governments operate is inherited from an age to which it may have been well adapted but today it is certainly awkward and cumbersome. Many fiscal policies are bound by tradition and are set in an unvarying pattern that reacts stubbornly to changes in economic conditions. Some of these policies have been incorporated into constitutional and statutory enactments which make them even more difficult to discard or alter. The effect of numerous restrictions on local government in particular is such as to thwart the effective and economical management of public affairs. If these attitudes toward State and local government are to be changed while preserving its essence and form, the change must come through educational processes affecting not only officialdom but citizens generally. This is of necessity a slow and difficult process and is rendered even more so because changes in statutory and constitutional provisions tend to lag far behind the trend in public discussion and thinking.

Federal Grants for Counter-Cyclical Expenditures. Obstacles to compensatory fiscal policy for State and local government should not obscure the possibilities that can be realized if such factors are understood and taken into account. Thus, one of the tools of Federal financial policy —grants-in-aid—can be used to supplement the tax and credit resources of the State and local units in such a degree as to overcome in large measure the handicaps to counter-cyclical expenditure inherent in a policy of State and local expenditure and taxation. The provision for counter-cyclical grants to be available in times of depressed economic conditions overcomes many of the conditions that restrict freedom of the States and localities to pursue a more enlightened tax and expenditure policy. Such grants manifestly would be in addition to and apart from those de-

signed to achieve minimum national standards of government service, and they should not be contingent on any fixed local contribution. They might also be differentiated from grants aimed at expanding normal State and local expenditures, particularly in the field of public works. At or near full employment they would disappear, as under those conditions other grant programs and State and local tax resources would be adequate.

Outright grants rather than credit pools or Federal loans would be far more effective in sustaining existing levels of expenditure because of the traditional reluctance of these governments to use loans for current operations. A program of this nature involves practical and administrative difficulties which in turn depend upon some reorganization of local government, looking to a more realistic identification of areas of service for particular functions and to more adequate local tax support. These aspects of the issue are not of such moment, however, as to nullify the advantages inherent in a grant program of a counter-cyclical nature.

Rationalization of Federal, State, and Local Fiscal Relations. The constitutional grant of autonomy to the Federal and State governments and the traditional preference accorded local government for the performance of certain public services have given rise to a system of taxation and public expenditure in the United States that is so poorly coordinated that it frequently has led to competition and conflict among the three levels of government. Formal efforts at fiscal integration between Federal and State governments have been largely confined to grants-in-aid programs, pay-roll taxes, and the estate tax. Between the Federal Government and localities there has been virtually no attempt to define the character of the relationship, and between the States and localities integration has been accomplished in a preponderance of instances with inadequate recognition of local requirements. The problem of intergovernment relations is becoming increasingly important as the role of government in the life of the nation expands and increased tax demands become more onerous and apparent to taxpayers. Functions and tax resources of the various levels of government need more formal definition and delimitation. In view of the natural advantages of the Federal Government—and, to a lesser extent, of the States—as tax collecting agencies, the issue of greatest immediate importance is the solution of the problem of raising funds at one level of government and expending them at another. The devices most satisfactory in resolving the dilemma are grants-in-aid and shared revenues. Grants-in-aid typify the relations be-

tween the Federal and State governments, and both devices are used by the States in their association with the local governments.

One alternative to some form of sharing or grant is the transference of functions from local to State governments and from the States to the Federal Government. This suggests a fundamental change in intergovernment relations in the United States and is an alternative less likely to be used extensively than the sharing devices. The fact that some local government units have been able to raise revenues from taxes other than the property tax has given rise to some opinion that these additional revenues (business licenses, income taxes, and sales taxes) provide a possible source of revenue which will enable the local governments to continue or even expand their functions with relative independence of aid from the States or the Federal Government. It must be borne in mind that quite apart from the administrative problems of locally administered taxes of this type such alternatives are available to only a small fraction of the local governments not including some of the more hard pressed. Moreover, such additional complication in the over-all revenue structure is offensive to the taxpayer. All things considered, a thoroughgoing attack upon the question of grants-in-aid seems the most likely to produce satisfactory results. The rationalization of government fiscal relations need not stop, however, with a more complete and well-balanced system of grants-in-aid. It can well extend to a higher degree of integration of State and Federal tax systems and a more clear-cut definition of functional division of Federal, State, and local authority. The policy directed toward integrating all the fiscal relationships of governments will be productive of sounder taxpayer relationships and better public services.

Tax Reform. Whatever methods are followed in rationalizing taxation by the three levels of government, the most important consideration to be held in mind is the economic effect of the tax structure taken as a whole. While taxes inevitably have a deflationary influence on the economy, this effect may be minimized through the use of less regressive taxes.

From this point of view, personal income taxes should be the main sources of revenue. Ideally, many taxes now common to the State and Federal Governments should be abandoned. Sales and excise taxes have no place in the Federal budget and, if used at all, should be reserved for the State governments. The property tax has unique advantages as a source of local revenue and is also relatively stable. However, the stability of this and other taxes should not be exaggerated. When national income falls, the consumption of all articles, including necessaries, falls,

and hence excise tax yields are reduced. Property owners are often unable to pay property taxes.

The solution to the revenue problems of State and local governments should lie not in encouraging the use of repressive taxes because they can be easily collected or because they are cyclically stable, but in creating conditions under which these units of government can derive sufficient revenues without complete disregard of equity considerations. A compensatory fiscal policy can eliminate or at least smooth the cycle.

The efforts of the Federal, State, and local governments to raise revenues from the same sources create conflicts. Sometimes the taxpayer finds himself paying higher taxes because the governments concerned cannot agree on some equitable manner of sharing the tax proceeds. These conflicts result in distorted tax structures; they are inequitable; they require the taxpayer to fill out a multiple of tax forms; above all, they are expensive.

Some conflicts could be avoided by a separation of tax fields, that is, by allocation of each of the several types of taxes to no more than one level of government. This method, however, can be used more as an exception than as a rule. Other devices must be found to allow more than one level of government to obtain revenues from a given source.

In general, the tax should be collected by that government unit which can do it most easily and efficiently. But this does not mean that the unit which collects the tax must necessarily be the one to utilize it; the revenue may be partly or wholly turned over to other governments.

The relatively small utilization of personal income and estate taxes by the States is not due to difficulties of collection. To a great extent it is caused by the fear of the States that higher and more progressive taxes will repel wealthy residents. It is very important that a greater use of these taxes be made.

The fear of interstate competition can be lessened or eliminated altogether by means of the crediting device. The tax credit is already used in connection with estate taxation. The Federal Government allows the executor of an estate to pay 80 per cent of the liability which would exist under the 1926 Federal tax schedule by presenting a receipt for the payment of a sufficient amount of State death (estate or inheritance) taxes. This device allows the State governments to impose death taxes up to the amount of Federal credit without fear of interstate competition, because the presence of such a State tax does not increase the total amount of taxes, Federal and State, paid by the estate. It is unfortunate, how-

ever, that the tax credit applies to the 1926 tax schedule. Under that schedule Federal estate taxes were low, with a flat exemption of $100,000. Since then the rates have been raised several times, particularly in the middle brackets, and the exemption lowered to $60,000. But as the tax credit applies only to the 1926 tax rates, the States did not gain from these revisions. Besides, the 1926 tax schedule works toward giving the States a larger share of taxes on very large estates and a smaller share on the smaller ones. As there are comparatively few very large estates, an unnecessary instability in State revenues is introduced. In addition, the tax credit does not apply to the Federal gift tax inaugurated in 1932. Since the Federal law actually encourages the transfer of property by gift rather than by bequest, the States lose a part of the revenues to which they would otherwise be entitled. An integration of the Federal estate and gift taxes, a lowering of exemptions, and a general increase in rates are extremely desirable. Together with this reform, the tax credit to the States should be readjusted and applied to the new Federal tax schedule. It may also be desirable to allow the States a higher percentage credit on smaller estates and a lower percentage on larger ones in order to achieve a greater degree of stability in State revenues.

The application of the crediting device to personal income taxation would open up great possibilities for the utilization of this tax source by the States. Within the limits established by the tax credit, the fear of interstate competition would disappear entirely because the taxpayer's total liability would not be increased by the State tax. The States could set up their own tax rates or they might simply impose a tax equal to the Federal tax credit. In any case, the credit would not affect their freedom to tax; if they should want to do so, they could impose taxes in excess of the credit.

Multiple Taxation. The boundary lines separating our States do not divide the country into 48 economic compartments. The whole economy is based on interstate trade. A large number of firms are engaged in it. Many individuals own property located in several States. In their taxation of businesses and persons whose enterprises are interstate in character, the States have employed a variety of exclusive situs rules and allocation methods. Non-uniformity of practice has eventuated in countless instances of onerous multiple taxation. These artificial barriers to a free flow of business throughout the nation can be eliminated through the adoption of uniform methods of allocation of exclusive situs rules by the several States. Such rules should be developed for all types of taxes

affected by situs conflicts. A State-Federal fiscal authority acting as an arbitrator between the States and with congressional authority based upon the interstate commerce clause could effectively implement such a program.[10]

* * * *

The generally accepted canons of State and local finances are adapted from those for the individual or business enterprise. They ignore the responsibilities of public policy by failing to recognize that monetary and financial operations of any government inevitably (however unconsciously) affect employment and economic stability. It is conceivable that State and local units will continue traditional policies with their haphazard economic effects, but if greater stability in economic conditions becomes the determining factor in Federal policy it is highly desirable that the integration of State and local policies with those of the Federal Government be accomplished. Acting in isolation, a State or local unit of government does not possess the resources and flexibility available to Federal fiscal policies. Yet, an integrated system of Federal, State, and local finances linked by a developed system of Federal grants-in-aid will greatly increase the ability of State and local units to pursue expenditure and tax policies which will materially assist in combating unemployment.

[10] For a proposal along these lines applied to a single industry, see U. S. Department of Commerce, Civil Aeronautics Board, *Multiple Taxation of Air Commerce* (House Doc. 141, 79 Cong. 1 Sess.).

COMMENTS

by

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A number of very interesting reflections are brought out in Mr. Wallich's able chapter on "Public Debt and Income Flow." While doubtless it is extremely difficult to make any accurate statistical appraisal of the impact of the debt on the income flow in terms of (a) the distribution of bond holdings, and (b) the tax structure which finances the interest charges, nevertheless I think the attempt made is illuminating. For one thing it stresses a point frequently overlooked, that the net tax burden incident to the public debt is considerably less than the total interest charges in view of the fact that the holders of the bonds will pay a considerable tax (about a billion dollars in 1948) on the interest earnings received. Moreover, in terms of the disposal of the interest payments as between saving and expenditures, the data point to the conclusion that the net deflationary effect of the total transfer from taxpayer to interest recipient is relatively small.

To be sure this conclusion does not take account on the one side of the contractionist effect of the impact of the added net tax burden upon new investment and new industry, nor on the other side of the expansionist effect of increased liquidity and financial security upon the propensity to spend out of current income. After taking account of all factors, I think it is highly probable (and this seems to be the general view one gains from financial writers) that the net effect of a large public debt is likely to prove, on balance, expansionist. Indeed, there is the widespread opinion that the expansionist effect may prove strong enough to develop into general inflation.

In the event of a rather violent restocking boom such as we had after World War I, the high degree of liquidity which the large public debt has given us may indeed contribute to an inflationary development. I believe, however, that the underlying factors following this war point toward pronounced scarcities in special areas (automobiles, household

equipment, housing) rather than over-all boom. There is only one way in which the price situation can be controlled in these special areas and that is by increasing production of the scarce products as rapidly as possible and by a continuation of price control until supply catches up with demand. In other words, what we are likely to be confronted with, it seems to me, is a selective inflationary situation which requires specific measures. An over-all inflationary development such as the speculative inventory boom of 1919–20 could be controlled partly by direct measures and partly by a budgetary surplus, or in other words a reduction in the public debt.

Looking beyond the restocking boom to the longer run period, I believe that the widespread holding of bonds can scarcely fail to cushion a possible decline in business activity. This is true in terms of the sustained buying power which the liquidation of bonds in such a period would provide and also in terms of the higher propensity to spend by those who through ownership of bonds feel a greater degree of financial security. On balance, the debt is likely to make the postwar employment problem easier, not harder.

There are indeed problems of management arising out of the very large volume of liquid claims resulting from the large public debt. As Mr. Wallich points out, much the same type of monetary control problems would result from an equivalent increase in property claims arising from a private creation of debt and other property claims. Yet I think Mr. Wallich has confused the problems of a high-income society with those of a society rich in terms of large holdings of liquid assets. A high-income society tends, on balance, to be a society which saves a large part of its current income; on the other side, one with high liquid assets tends, on balance, to spend a large part of its current income. Indeed, the tendency toward over-saving of a high-income society can, in no inconsiderable measure, be overcome by fiscal policies which cause such a society to become also rich in its liquid asset holdings. The more liquid the society, the more it will tend to become a high consumption society.

Mr. Wallich makes a rough calculation of the probable excess in the money supply in 1948. He probably does not sufficiently recognize that the term "excess" can have no precise meaning unless one assumes a given rate of interest. A high degree of liquidity will result in a low rate of interest and at that rate of interest, the money supply is not in excess. The money supply can only be said to be in excess if the rate of interest is artificially held at a higher rate. But in this event the excess money

supply would probably disappear since such a condition would induce investors to give up liquidity in exchange for securities, and thus the excess would tend to disappear. One could, of course, say that the money supply was so great that it produced a rate of interest so low as to stimulate an undue expansion and in that sense the money supply was "excessive." In the event that a low rate of interest tended to promote inflationary developments, a large budgetary surplus permitting a reduction of the public debt would be in order. Under these conditions a budgetary surplus would surely be a more appropriate policy to adopt than that of raising the rate of interest.

In discussing the alleged "excess," Mr. Wallich says that we are likely, in fact, to eliminate it by gradually growing into the money supply; but this process, he says, would take several decades. This seems to be unduly pessimistic with respect to the probable growth of real income. In our past history it appears that our gross national product has doubled every 20 or 25 years. If we maintain this rate of growth, we should in a very few years reach the "normal" ratio of income to money supply and indeed before very long we should need further increases in the money supply. But this part of Mr. Wallich's discussion again is rather unsatisfactory in that it fails to define what this "normal" ratio is and how it relates to the level of the interest rate. Mr. Wallich does in the section immediately following call attention to the fact that liquidity is a factor in keeping interest rates low, but he does not seem to have integrated this analysis with his previous remarks.

In connection with the long-run need for an increase in money supply, as real income rises, one faces up squarely with public debt policy and in particular with future increases in the debt financed by borrowing from banks. Under modern conditions when commercial loans are relatively negligible, an increase in the money supply adequate to maintain high liquidity and low interest rates could hardly be achieved without Government borrowing from the banking system unless, indeed, straight currency issues were resorted to. This is a matter which deserves much more discussion than it has thus far received.

The fact that our money supply is currently based largely on bank holdings of Government bonds is discussed at some length in these papers. There is a good deal of concern that the earnings of the banks are derived in so large measure from the interest on Government bonds. Critics of the current banking situation not infrequently assert that the interest which banks receive is unjustifiable payment for the simple act of creating

credit. Looking at it from the standpoint of the general economy, it would probably be more accurate to say that these interest earnings help to cover the cost of operating the monetary and checking-deposit system, which cost has to be covered somehow or other. Those who are eager to reduce the interest receipts of banks must recognize that the alternative is high service charges. It is certainly not obvious on the face of it that this is a better way of financing the operation of the monetary and banking system. It is, of course, true that abnormally high earnings by banks cannot be tolerated, but there are ways in which this can be managed. In my own judgment, taxation of excess earnings deserves consideration.

But first, certain reforms are surely urgently needed. Wages and salaries for bank employees should be raised; bank employees are, as everyone knows, incredibly underpaid. Service charges might well be eliminated or drastically reduced; this would not only contribute to good public relations since such charges are generally regarded as a nuisance, but it would also stimulate the widest possible use of checking deposits by the public. Possibly also, somewhat higher interest rates should be paid for time deposits. Such interest rates should, however, be well below the rate on the Series E savings bonds. In addition, it is desirable that the banks should be permitted to build up their depleted capital ratios. These measures combined would go far toward the elimination of abnormally high earnings. To the extent that such abnormal earnings materialize, some form of taxation would seem desirable. Banking is not an ordinary private enterprise. It is in a very special sense a public utility. It is entitled to a fair profit for efficient operation but no more. Taxation as a means of getting at excess earnings seems to me less objectionable than the various other proposals discussed by Mr. Wallich.

Mr. Wallich suggests that so long as the threat of inflation persists it will be desirable to continue the pay-roll deduction system for purchase of Series E bonds, but that if contractionist tendencies appear, it will be better to scrap the system. It is hardly possible that these pay-roll deductions could be used in any systematic way as a cyclical device. If unemployment was increasing, those still employed would probably wish to save all the more. As a long-run measure, a continuation of the pay-roll deduction system might indeed operate rather seriously to reduce the ratio of consumption expenditures to income payments. This would have a deflationary effect upon the economy unless the standard income tax rate affecting the mass of the population were reduced by a corresponding amount. To overcome this tendency and still retain the benefits

of individual thrift, a part of the Federal budget could be financed from the pay-roll deductions (thrift bonds), thereby permitting a reduction of the basic income tax rate. By this method we would facilitate individual thrift and raise the level of financial security for the mass of our citizens and at the same time prevent the deflationary effect of such pay-roll deductions upon consumption and total effective demand. The increasing achievement of financial security would moreover progressively tend to raise the community's propensity to consume.

I have mentioned above the possibility of combining the pay-roll deduction savings plan with a reduction in the standard income tax rate. Professor Haberler has recently called attention to the advantages in what he calls the "revenue method"; namely, tax reduction as a means of increasing total effective demand.[1] He deprecates "the idea, now gaining in popularity, that aggregate effective demand can be stimulated sufficiently to eliminate unemployment by increasing public expenditure *without deficit financing*." He calls attention to the now generally admitted fact that in order to achieve a given increase in aggregate outlay, public expenditures must be increased more if they are financed by taxes than if they are financed by loans. He doubts, as an anti-depression policy, the wisdom of tax-financed expenditures as compared with deficit financing. He concludes with this statement: "This may sound paradoxical to many, for what most conservatives are afraid of is a deficit and a growing public debt. Their obsession with the public debt may thus lead them into a much more dangerous alley." While Professor Haberler is directing his statement mainly to anti-depression policy, his analysis may (under certain conditions at any rate) be equally applicable to longer run considerations.

[1] *Review of Economic Statistics*, August 1945.

COMMENTS

by

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The fundamental issues with which this pamphlet deals may be clarified by a brief comparison of its major assumptions with the principles of "sound finance" which were developed during the nineteenth century and almost universally accepted, at least in English-speaking countries, until the middle thirties of this century. Had the pamphlet been written between 1875 and 1930 it would certainly have argued that in times of peace the budget should always balance; and that if borrowing became necessary, the Treasury should avoid borrowing from banks, and especially from a central bank. Other recommendations would have included the maintenance of the gold standard, if necessary by credit contraction; independence of central banks from political, especially Treasury control; and a central bank policy of lending only at rates "above the market." The tax program would have been designed to encourage thrift rather than consumption. Unemployment, if mentioned at all, would have been assumed to reflect a wage scale too high rather than too low.

The nineteenth century concept of sound finance still claims many followers, but it has been displaced to a large extent, especially in academic and governmental circles, by what is in many respects its doctrinal and practical opposite. According to this newer view, budget deficits are desirable under conditions that occur frequently, even continuously, in times of peace. Managed currencies and flexible foreign exchanges are preferred to a rigid gold standard. Central banks, private banks, and paper currencies are regarded as merely convenient instrumentalities of Treasury finance. Several of the present group of essays reflect the newer type of economic theorizing.

Because of differences in unstated premises, adherents of each philosophy often find the views of the opposing school incomprehensible. A brief analysis may help toward a mutual understanding even though it does not effect a reconciliation.

The main characteristic which unifies the series of fiscal and monetary practices that are considered "sound" in the older system is that they all

tend to prevent inflation; in the newer program the unifying purpose is the avoidance of deflation. The historic code of balanced budgets, gold standard, and high interest rates is a proven bulwark of stability against inflationary pressures. The principal contents of the new orthodoxy—encouragement of consumption, deficit spending, artificially low interest rates, flexible exchanges—are effective ways of resisting a tendency of the money flow to shrink in volume, with downward pressure on incomes, production, employment, and prices. There is little dispute about this; the quarrel is really about the relative importance of permanent precautions against upward and against downward disturbances of the value of money.

In part the change of objective is a reflection of the tendency of mankind to be influenced most by the experience that is most recent. Most wars of modern times were accompanied or followed by violent inflation, and wars were frequent enough to keep the inflation danger fresh in people's minds as the standard sequel to unsound fiscal policy. But in the thirties of this century, deflation was so severe that "soundness" came to mean anti-deflationary, especially in the English-speaking countries where the postwar inflations of the twenties had been comparatively mild.

However, the conflict involves more than a change of financial practice in response to a change in the phase of the business cycle; it involves the underlying economic analysis. The classical economics of the nineteenth and the first quarter of the twentieth centuries was a realistic description of a society operating as it actually does operate at a peak of prosperity, with full employment of resources and automatic clearance of markets through the operation of the price system. That system never succeeded in fitting depressions neatly into its own framework; it treated them as mere episodes, temporary deviations from a normal state of prosperity. Indeed, it came close to proving depressions to be impossible. It rationalized a system in which financial practice was geared to the expectation of continuous growth of capital (financed by thrift) and hence of productivity, income, and living standards.

The rival body of theory which has developed since about 1930 (rapidly since about 1936) posits as normal a chronic failure of the price system to keep market demand equal to production without a large volume of unemployed resources. It is a rationalization of the behavior of a society suffering from chronic depression. Prosperity is the temporary deviation from normal that requires a special explanation in each case. (Compare Musgrave, pages 1–7).

The essential points explaining the supposed chronic tendency of industry to run at low speed may be summarized as follows: First, in a wealthy community with shrinking opportunities for new investment, people tend to take more funds out of the income stream as savings than they put back into the income stream as investments. Second, there is no necessary connection between an individual act of saving and an individual act of investment, so that changes in savings and in investment respectively can occur independently of one another.[1] Third, the rigidity of costs makes it impossible for industry to adjust itself to falling money receipts without curtailing employment and the volume of production. Fourth, changes in the level of income lead to proportionately greater changes in the level of savings.

Since the difficulty starts with an excess of current savings over current investment, public policy should be directed to the replacement of money that is drawn out of the income stream by the excess of individual savings and to the discouragement of thrift. Public deficit finance is needed as an offset to private "surplus finance" to the end that money income may be stable and resources be fully utilized. Higher wages, lower profits, progressive taxes, social security, and other equalitarian measures help to discourage saving. Hence they maintain or increase the total volume of activity and encourage investment. Thus higher wages, at levels near those historically significant, actually increase the demand for labor.

Many, perhaps most, adherents of the newer school accept the older analysis with reference to a "young" economy with expanding population, advancing frontiers, and rapidly changing technology, and the newer analysis for a "mature" economy. Since they believe our economy, as well as that of Western Europe before the war, to be mature, they apply the newer analysis to present-day problems without necessarily denying the accuracy of the older analysis under nineteenth century conditions.

Space does not permit a discussion of the whole range of assumptions and evidence supporting the two economic philosophies just described. I have stated elsewhere (*American Economic Review*, March 1942, pp. 106–10) my reasons for rejecting the thesis of economic maturity. I have argued there that the slowness of the recovery from the depression of the thirties should be explained largely by national tax policies and

[1] Investment, in this analysis, is usually assumed to be financed by expansion of currency or bank deposits, while saving withdraws currency from circulation, or stops the turnover of deposits. Hence, though an approximate balance between saving and investment is necessary to prevent inflation or deflation, either can expand or contract independently of the other.

wage policies which grow out of what I have called above the newer school of economics.

I also distrust the recommendations in the pamphlet in so far as they are based on (1) the dissociation of the volume of investment from the availability of a flow of savings (discussed below, page 144); (2) the effect of changes in the level of income on the volume of saving which I believe to be greatly exaggerated; and (3) the tendency of high wages to increase employment, which I believe to be fallacious.

Since space does not permit discussion of all the conclusions of the pamphlet that are affected by these basic issues, I shall here merely record a general dissent and devote most of my space to the consideration of other doubtful points in the various papers.

Fiscal Policy, Stability and Full Employment. Aside from my reservations concerning the fundamental theories on which they are based, I have very little criticism of Mr. Musgrave's and Mr. Domar's papers. Mr. Domar's discussion of the relation between increasing productivity and the trend of prices (page 60) and Mr. Musgrave's comment on the same point (page 4, footnote 1) seem to me unsound. Prices that fall because of falling real costs have no tendency to create unemployment, nor do they increase the burden of debt. Mr. Domar suggests that a policy of stable money income with sporadic falling prices would require more price flexibility than is likely to exist. I suggest that his ideal (a stable price average maintained by part-way lowering of prices of the goods whose real costs fall, with compensatory raising of other prices and of wages) would require more flexibility than is necessary if changes in costs are reflected wholly or partly in the prices of the goods affected, and there are no compensating changes in other prices or wages.

I regret that, having decided not to discuss the relation of public spending to the maintenance of democracy and the merits of private enterprise, Mr. Domar has digressed to argue one side of the case by innuendo (page 55). If there are deficiencies in the provision which has been made in this country for public health, education, and conservation of resources, these deficiencies are indictments of public planning more than of private enterprise. The last sentence of this paragraph is a gross overstatement, since many countries have maintained democracy in the face of severe unemployment and many others have gone authoritarian for other reasons. Germany is really the only illustration of Mr. Domar's point.

Monetary Aspects of National Debt Policy.—The most important innovation which Mr. Robinson suggests is the requirement of a reserve

against demand deposits, consisting of nonmarketable low-yield securities (pages 77–78). Three alternative plans are proposed. Mr. Robinson does not state precisely what purposes are to be accomplished by these measures, though he indicates that the purpose is not to reduce bank earnings. Inferentially, the aims are to reduce bank speculation in securities, to reduce the interest burden on the Treasury, and/or to improve the machinery of credit control.

The proposals all seem sound in so far as their purpose is cheapening the cost of Treasury borrowing. When the note-issue privilege was attached to Government bond issues under the old national banking system, the Treasury was enabled to borrow more cheaply than other sound borrowers; a similar saving could be made by attaching special privileges to bonds as coverage for deposits, as Mr. Robinson suggests.

In their details, the plans are open to several objections. First, as a means for eliminating speculation in Government bonds the plans cannot be very effective so long as the banks are free to trade in marketable securities on the basis of their time deposits.

Second, the plans put a much greater premium on the deposit of funds in time accounts than does the present differential in reserve requirements. It will be remembered that in the period of very active demand for loans in the twenties, deposits were shifted extensively from the demand to the time category although the only gain to banks was a reduction in cash reserve requirements.

Third, I do not see that any of the three plans really accomplish the purpose of giving the monetary authorities more effective control than they already have, since, so far as indicated, the Reserve System or other monetary authority is not to have discretion to raise and lower the level of required bond reserves. Moreover, even if the control authorities are given power to change reserve requirements, they cannot exercise restraint without tightening money markets; if that cannot be allowed now, it cannot under the new system.

I confess that I do not understand the section "Credit Policy with Proposed Debt Structure" on pages 81–82. If an additional supply of special bank securities were made available to the banking system in dull times the banks would have no need for them unless deposits were increasing. They would have no way to pay for them without liquidating outstanding credits unless they already had excess reserves. If they did buy them no purchasing power would be created; excess reserves would merely be shifted from one form to another. Vice versa, for the Treasury

to retire the special bonds in times of expansion would make the banks' bond reserves deficient and their cash reserves excessive. It would seem more sensible to make the cash reserves deficient since that would bring direct pressure on each individual bank to call its loans or sell its assets. A bank which was short merely of bonds, not cash reserves, could bring down its deposit liabilities by inducing depositors to take cash in exchange for demand deposits, but that would merely substitute one form of money for another without correcting the monetary situation at all. Sale of marketable securities would reduce deposits somewhere in the system but not primarily in the selling bank. Calling loans, likewise, would not help the individual bank except as its debtors might pay by check on the bank itself.

I do not see any argument for the proposal that the price of marketable securities held outside the banking system should be stabilized by open-market operations on the part of the Government trust accounts. To perform this function the trust accounts would have to carry normally a large balance of uninvested cash so as to be ready to intervene on the buying side of the market. They would thus become a second central bank, buying bonds when interest rates are rising and selling them when interest rates are falling. This would run directly counter to the use of Federal Reserve credit policy to check monetary expansions and contractions, since open-market sales for credit control ordinarily occur when interest rates are rising and open-market purchases when rates are falling. This dilemma is not resolved by the provision that the operations might be "conducted" by the Open Market Committee of the Federal Reserve System, so long as the purposes conflict. As the author states on page 74, stabilization of interest rates and bond prices is an impediment to monetary stabilization; it is not desirable to have one central bank responsible for stabilizing bond prices and another for stabilizing monetary conditions.

Mr. Robinson's three plans for stabilizing individual holdings might lead to absorption of some of the current excess of individuals' purchasing power. But the volume so absorbed would probably be insignificant if the Treasury insisted on getting its funds even as cheaply as it does now. If the life annuities are to carry no privilege of redemption, the rates will have to be lower than those now offered by life insurance companies with redemption privileges; and annuities can be bought now at yields higher than those of bonds. I do not see how the cost of the Treasury could be less than 3 per cent in the current market.

As to the offer of unemployment insurance, it is true, as the author states, that Government receipts and expenditures would have a stabilizing effect on the economy. But a plan of voluntary unemployment insurance would have to be very expensive for the Treasury in order to be attractive to the individual. If the insurance was paid for currently and was immediately effective, like fire insurance, individuals would naturally postpone purchase until they expected to be unemployed in the near future. It would be like life insurance without any medical examination; the dying would all want it. On the other hand, if an individual had to participate for a long time in order to build up his benefit claim, and had no right of redemption, it is hard to see how the insurance could be sufficiently attractive unless the rates were too low to cover the losses. Moreover, it does not seem practicable to withdraw the offering of unemployment insurance in a time of deflation, as suggested, since that is just the time in which popular demand for it, if any, would be greatest.

The proposed stable purchasing power bond would offer the investor a hedge against changes in the cost of living, which would perhaps be accepted as an offset to a low coupon rate. But the risk taken off the investor would be transferred to the Treasury, and this would be the equivalent of a higher rate on the debt. The stable purchasing power bond needs further explanation before its merits can be determined. Would the bond be redeemable on a sliding scale, varying with the cost of living, or would only the interest be stabilized in purchasing power? If the former, the bonds would offer a grand opportunity for speculation, the holder redeeming the bonds when he believed that the cost of living was going to fall, and buying them when he thought it was going to rise. However, if the redemption value were fixed in dollars, at or slightly below the issue price, and only the interest disbursements adjusted to the purchasing power of the dollar, this objection would not hold. But the plan would work in direct opposition to the cyclical stabilization feature of the proposed unemployment insurance, since the disbursements would be greatest in periods of inflation and least in periods of deflation. At present we have two institutions which will powerfully reinforce any inflationary movement that may start: the farm price parity program and the principle that wages should be adjusted upward with the cost of living. Mr. Robinson's proposal makes it complete. The rentier too will have his income automatically raised by inflation and there will be no one whose reduced purchasing power will serve as a check on the inflation.

I think Mr. Robinson has attempted the impossible. He is trying to eliminate inflationary pressure while perpetuating its principal prospective causes. One of these is the principle that whenever the Treasury is a borrower it must have access to cheap money, obtained if necessary by inflating the volume of liquid funds in the hands of the public. For the bulk of wartime borrowing this decision is irremediable; Mr. Robinson would continue it whenever the Treasury is a borrower in time of peace. The second is the policy recommended by Mr. Robinson of stabilizing the price of marketable Government securities for an indefinite period after the war financing is finished (page 76). I do not believe that there is now any necessity for this, moral or political. I never heard anyone refer to the decline of bond prices in the early twenties as a breach of faith. But if the market is kept stable for a few years an implied commitment will be made, from which it will be hard to recede. A high bond yield may not of itself stop inflation, but it is a necessary by-product of the only measure that is sure to stop it; namely, the creation of an underlying scarcity of money.

Public Debt and Income Flow. The heart of Mr. Wallich's paper is the table on page 86, in which the most important items are the last four columns. Here gross income derived from Government bonds by various classes of holders is broken down into estimates of the respective amounts that will be returned to the income stream (as consumption or investment expenditure) or will be held uninvested. Most of the discussion relates to, or is based on, these items. The value of these computations, either as a contribution to methodology or as specific forecasts, seems to me slight.

The most serious error is the treatment as leakage of all financial investment, apparently including bank loans and mortgage lending by insurance companies. The only investment recognized is that which is made by the saver himself in the production or purchase of physical goods. This is not realistic. Financial investments are neutral; they neither furnish an outlet for savings into the income stream nor divert them from it. There may be some presumption that the money so transferred to sellers of securities is not used by them for consumption expenditures, but there is none whatever that it remains uninvested. In fact, new securities are bought chiefly by people who have sold other securities, rather than those who have just saved the funds out of income. The savings are often at one end and the investment at the other end of

a long chain of financial transactions.[2] While I know no way to estimate the amount of hoarding that results from the receipt of marginal income, I think it may be fairly assumed to be about the same for interest paid to different classes of income receivers, since most of the resultant hoarding occurs after one or more turnovers. There should be differences at the first turnover, but the magnitudes at that stage are small.

This error appears on both sides of the summary on page 87, since it affects both the spendings of recipients and the "savings taxed away out of income other than interest." The latter item of 1.5 billion would be very much smaller and on the other side the item of 1.8 billion, "interest respent by recipients," would be very much larger if this error were eliminated. However, the figures to be substituted would be sheer guesswork.

The difference between Mr. Wallich's concept of the investment process and mine is reflected in his comment in footnote 2 on page 85: "It is doubtful that the mere availability of these savings will induce others to make physical investments which they would otherwise not have made." I infer from this statement and from his treatment of financial investment as leakage that Mr. Wallich accepts the current view that investment goes on independently of the availability of a fund of savings seeking investment, the volume of bank credit expanding to meet the demands of borrowers. This view seems to me to confuse the mountain and the molehill.

The minor role of new bank credit in providing industry with new capital in prosperous times is evident from the record of the twenties. Through the six years 1924-29 the expansion of bank loans and investments in this country was less than 15 billion dollars. In the same period the securities market supplied the demands of industry for new capital to the extent of over 50 billion dollars. New municipal issues totaled over 8 billion dollars, and foreign governments over 3 billion. This is in addition to the expansion of business working capital which absorbed a considerable fraction of the expansion of bank credit. All the excess of new financing above the expansion of bank credit had to be financed by investment of individual and corporate savings, except for the funds released by the reduction of the Federal debt, amounting to less than 7 billion.

At most times the reserve of unused lending power of the commercial

[2] Mr. Wallich mentions (p. 99) the complication arising from the shifting of the decision to hoard or spend, but only in connection with payments to insurance policy holders. He ignores the effect of marginal income on expenses and on the investments of insurance companies.

banks is small, and can be increased only by gold imports, by expansion of central bank credit, or by the investment of individual savings in new issues of bank capital. The state of the capital market, which at times discourages and at other times encourages new issues, is not primarily determined by the state of bank reserves, but by the balance between the supply of funds appearing as new savings and the demand for funds coming from new borrowers. Moreover, bank lending power is closely tied up to the flow of savings into the capital accounts of borrowers. The amount of credit which any borrower can expect to get is a function, among other things, of his capital, and when a concern wishes to increase its line of credit it must ordinarily secure new capital from nonbanking sources to broaden its credit base.

Even if we follow Mr. Wallich in treating financial investments (which presumably include debt repayment) as leakage, his figures lack plausibility. For 1948, for example, the proportion of "savings" to total revenue derived from Government bond interest (after deduction of income taxes) ranges from zero in the case of State and local governments to 100 per cent in the case of insurance companies. Does Mr. Wallich believe that no State or local government will apply its marginal revenues to security purchases or to debt reduction? Or that no insurance company will draw on its interest earnings to finance housing projects?

The point made in footnote 15, page 99 is, I think, unsound. Saving would not necessarily have been less anywhere in the economy if, in the absence of a Federal debt, insurance companies had acquired other assets. The funds released by the purchase of securities from other investors might have been hoarded or used for consumption, but they might equally well have been used to finance some new investment that would have yielded as much as the bonds and hence generated as much income and saving.

Another unjustifiable assumption of this paper is that 50 per cent of the corporation income tax is passed on to the consumers of corporations' services. (Mr. Musgrave suggests 33 per cent.) The presumption from well-established economic theory is that a net income tax falls on profits, and I know of no factual evidence that casts doubt on the theory. The tax certainly does not change the most profitable level of monopoly price, and it does not enter into the costs that determine the competitive level of prices. Of course when prices over a wide area are fixed by negotiations with Government purchasing agencies, or controlled by price ceilings, the tax is passed on to the extent that control agencies make allowance for it.

But this factor is not relevant to the peacetime situation except as to public utility rates fixed by regulatory bodies.

The second sentence in the last paragraph generalizes for peacetime a special wartime situation which has in fact been promoted by public policy. There is no presumption that when corporations re-enter the market as sellers of high-grade securities, life insurance companies will be driven only occasionally "beyond the peaceful confines of the Government bond market."

State and Local Finance. My major criticism of this paper relates to the use of statistical data, especially in the section beginning on page 111, to support conclusions which do not seem to me to be supported either by the data the authors publish, or by other data which are available.

On page 111 it is stated that during the twenties and thirties the trend of local expenditures "followed with some variation the major movements of general business activity." On page 116, with reference to construction, reference is made to the possibility that "construction initiated by local and State governments may well accentuate (as it so often has done in the past) the amplitude of business cycles." In the summary on page 119 it is stated that the cyclical swings of local government expenditures are in rough conformance with those of the whole economy, and on pages 117–19 it is indicated that the financial practices of both State and local governments have tended to aggravate cyclical swings in business. With reference to State governments, other passages might be quoted which qualify away the conclusion, but for local governments at least the authors' position is clear.

These conclusions are based on an analysis which ignores entirely all cyclical changes in business activity in the twenties and thirties except the catastrophic decline of 1929–32 and the subsequent recovery. No attention is paid to the recessions of 1921, 1924, 1927, or 1937. The entire basis for these conclusions, therefore, is that in the profound depression of the early thirties, State and local governments reduced expenditures, curtailed construction activity, and for some years after 1933 showed an actual excess of revenue over expenditures.

This single episode, which was part of the most violent liquidation that had occurred in nearly 60 years, does not of course prove anything as to the typical relation between State and local finance and the phase of the business cycle. The point would not be worth arguing at length, however, if it were not that in fact expenditures, borrowings, deficits, and construction activities of local governments do show a definite

correlation with the fluctuations of business activity during the twenties, but it is an inverse correlation precisely the reverse of that alleged by the authors.

The data for local expenditures shown in the table on page 115 tell us nothing about cyclical movement of local expenditures during the twenties, for the reason that the only years for which the expenditure figures rest on authority are 1920, 1925, and 1930 (see footnote 2 to table). The other items are interpolated on the basis of a smooth curve. A series so constructed can, of course, show no cyclical movement; the noncyclical character of the expenditures is assumed.

As to State expenditures, although the cycles are obscured by a very strong upward trend, the data for the twenties do reveal consistent fluctuations inverse to the business cycle. The years of business recession were 1921, 1924, 1927, and 1930, the recession of 1927 being very mild. The three items in the State column which show the largest increases over the preceding year are, in order, 1930, 1921, and 1924, while 1927 ranks sixth. Of the total increase from 1920 to 1930, 1.3 billion dollars, 0.8 billion dollars occurred in the four depression years and only 0.5 billion in the six good years.

It is probable that local expenditures actually fluctuated in similar fashion. This is indicated by the data for public borrowing for capital purposes, which are available only for State and local governments combined (*Survey of Current Business*, February 1938, page 14). In each of the four depression years, State and local borrowings of new capital were bigger than in any of the two years preceding or the two following. In three of the four depression years, borrowings were higher than in any of the good years except 1929, and even 1929 was topped by 1927 and 1930. The average for the four depression years was 1.37 million and for the seven good years 1.18 million.

The statistics of construction expenditures, which are shown in the Department of Commerce study cited on page 116, also contradict the authors' conclusions. A table there published shows that from 1920 through 1930, over 68 per cent of the increase in construction expenditures of municipal governments, and over 87 per cent of the increase in construction expenditures of State and county governments, occurred in the four depression years.

Finally, the data with regard to deficits and surpluses discussed on page 118 fail to support the authors' conclusions, since they show that in the recession years 1931–32 (the only recession years taken any account of

by the author) the deficits of local and State governments operated to sustain income, while in the recovery years 1933–36 there were surpluses.

Another criticism of this paper relates to the recommendation (pages 125–26) that Federal subsidies be used extensively to enable State and local governments to maintain expenditures in periods of recession. The authors point out in the section preceding this one that most State and local expenditures are of types that do not lend themselves to expansion in bad times and contraction in good times. The only reason given for outright grants to finance additional expenditures in times of depression is the fact that such expenditures would tend to expand income. Obviously, however, a given amount of expenditure of Federal funds does no more to increase income if made through State and local governments than it would if made directly by the Federal Government. There may be administrative reasons why it is preferable to have such payments channeled through State and local governments rather than made directly, but no such reasons are given by the authors. On the face of it, it would seem likely that such expenditures could be cut off more readily when no longer needed if only the Federal Government were involved in the administration of the activities financed.

COMMENTS

by

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This collection of essays is a notable contribution to the literature of fiscal policy. The essays are interesting and important. They are full of timely suggestions and contain many novel proposals. So comprehensive is the coverage of the essays that it is impossible to review each or to comment on more than a few of the points raised by the authors. The reader will do well, however, to study the articles with care.

If the essays as a whole have a bias it lies in the direction of a belief that deflationary tendencies will be operative once war-contract terminations become effective and the level of Federal spending is drastically reduced. This emphasis is explicitly stated, by Musgrave, for example, since techniques for meeting depressions are believed to be more controversial than those for preventing inflation. Inflationary possibilities, however, are not entirely left out of account in the various papers. Robinson's essay on "Monetary Aspects of National Debt Policy" is primarily concerned with debt management during periods of monetary expansion. Nevertheless the underlying current of thought running through the volume is that government spending or investment will be required to maintain a satisfactory level of employment. Thus, the point of view is predominantly Keynesian or Hansenesque. This ghost being out, the authors appropriately attempt to allay economic fears, by concerning themselves spatially more with the public debt than with other topics. Whether depression rather than inflation eventuates in the period ahead, time will tell. Meanwhile neither all of the forces, as Robinson clearly shows, nor all of the economists, are arrayed on the side of probable deflation. Conditions in the future may also change, as may the reality of one's point of view. If the prevailing point of view of the essays is correct, the authors will have sounded adequate warning; should they be mistaken the emphasis in their volume will be remembered.

Should depression be our lot in the post-transition era, the authors have outlined general policies to meet it. Musgrave, for example, recog-

nizes the failures of pump priming but comes dangerously close to saying that he sees no way, for some years, to avoid continued deficits. As reflationary tools, increased public expenditures are said to be more effective than tax reduction. Public works are said to be too slow in producing desired economic effects. These primary lessons, illustrated from recent experience, many planners have not yet learned; too many antidepression policies are simply larger and brighter models taken over from the period of the 1930's. The requirement of a self-propelling industry to afford optimum employment is largely absent from these plans. Musgrave does, however, emphasize the role investment and spending must play in maintaining an economy capable of providing full employment. He indicates the conflict involved in attempts to stimulate consumption and also improve investment by the use of the same tax devices. Many advocates of progressive taxation have not faced this dilemma.

Fiscal policy to Musgrave, however, "is primarily an aggregative approach, operating upon the general level of expenditures and prices rather than the direction of expenditures or the structure of prices" (page 18). Perhaps it is correct to neglect "the structure of prices" but it is doubtful if fiscal policy is a conception of aggregates, except to statisticians who look at the economy mainly through the gross national product. Fiscal policy does take account of the effects flowing from levels of taxation, expenditure and borrowing. It also takes account of the effects of particular taxes, of different allocations of expenditures and of varying methods of borrowing. It attempts to be selective in the devices employed, the choice being made largely on the basis of the economic effects produced by the techniques selected. This is far more than a question of aggregates—witness the words spilled in the condemnation of retail sales taxes because of their deflationary consequences, or the approbation of public works for their multiplier effects. To some writers, fiscal policy even embraces central bank policy via the domination of private credit policy by the public treasury.

Fiscal policy is eclectic, not merely an aggregate control. For example, the effects of all public expenditures are not identical. The primary velocity of different types of expenditures, as well as the multiplier effects, are not identical. Cyclical budgeting, therefore, cannot be concerned merely with the volume of expenditures. The average citizen is vitally concerned with the specific character and scope of government services. The dollar spent "for the services of the construction worker or for additional groceries" is not the same, even to the recipient of public relief

payments. If fiscal policy is to be merely a faucet analysis—so much to be turned on and off at different seasons—it falls far short of its potentialities. It will never get at the causes of trouble nor recognize its own shortcomings. That nonfiscal forces are at work and need correction, Musgrave clearly states. Fiscal policy only supplements or complements other well-known tools.

The essay by Wallich on the "Public Debt and Income Flow" is mainly concerned with the slowing up of the income stream because of taxes imposed for interest and debt retirement. The total volume of debt, public and private, he believes is about what it would have been, "*if after 1929*, instead of running into the depression and subsequently the war, we had continued to enjoy a steadily expanding national income, supported by high private investment and continued credit expansion."[1] The "*if*" involved in that assumption is of more than normal size. It overlooks the tremendous industrial and credit expansion due entirely to the war. Projections of trends on the basis of data from the late twenties hardly seem to produce figures of present magnitudes. Nor were projections presented to prove the point. The blame for the problem of a 300 billion dollar debt should rest squarely on the war, not on "a high income and savings economy." It may even be doubted if the expansion in private indebtedness would have been as great as heretofore, corporate saving having played a continually more important role. There is no doubt, too, but that the forced and patriotic saving of the war years was of far greater magnitude than any normal saving to be expected from comparable levels of income in the absence of war and the restricted outlets for spending imposed by the war.

Wallich makes an excellent case for the collection of data on distributions of bond ownership and interest payments by income classes. Such a study is needed if the economic effects of debt payments are to be accurately measured. It is a sorry comment that writers who deal with fiscal policy, the incidence of taxation or the distributional effects of debt payments have to base their conclusions on inadequate data, buttressed merely by implications and assumptions. Similarly, it would be worth knowing what bondholders actually do with interest and principal payments made to them, as well as the use policy holders make of insurance refunds and other payments. No data are available save those which can be applied indirectly from studies of consumer expenditures. The behavior of bondholders is, therefore, largely assumed.

[1] P. 85 above. Italics my own.

A similar gap exists in the data covering the fiscal operations of State and local governments. Census data partially supply the need but the coverage is not complete for local units and the time lag, though greatly reduced in recent years, still remains. What is needed are actual data and indexes of current receipts, expenditures and borrowings, by aggregates, functions and objects if possible, made available monthly and with no more delay than is involved in the presentation of business statistics. Time was when the volume of fiscal operations of State and local governments exceeded those of the Federal unit. Whether this is likely to happen in the future is not as important as the fact that similar economic trends should be achieved among the governmental units, as Mitchell, Litterer and Domar make clear. If data are currently available showing trends in fiscal operations in each level of government, with aggregates for each, the possibilities of fiscal planning will be much improved. The United States Department of Commerce and the appropriation committees of the Congress should take note of this.

The high earnings of banks from Government securities present several problems with which Wallich carefully deals. When he says that "a good deal more than half of their total 1948 income will come from this source" (page 95), he does not exaggerate the probable situation. If, as seems likely, interest on "Governments" will soon more than cover all bank expenses it may be wondered whether the banks will effectively discharge their function as risk takers, or whether they will prefer to leave the financing of business ventures largely to "speculators" and established business firms, the latter through corporate saving. It may be doubted, too, if the extra earnings will be so continuously plowed back into capital accounts as to make banks, in the aggregate, more venturesome. When the bulk of bank earnings comes from the most riskless of all securities, increased complacency seems a more probable outcome than increased venturesomeness.

Wallich indicates several methods by which bank earnings may be decreased. A little more competition among banks seems to be overlooked, yet continued high earnings will undoubtedly bring about the organization of more banks. An excise tax, rather than an excess profits tax directed at banks is preferred because excises can more easily single out individual industries for discriminatory taxation (page 96). This is certainly a tenuous thread on which to hang tax policy, especially taxes for nonfiscal ends.

The case against the direct sale of securities to the Federal Reserve

System is also weak. Emphasis is on political vulnerability and the high reserve ratios such a policy might require. But why not high reserves when occasion indicates their need? Reserves of conventional percentages are a part of the folklore of banking and need to be recognized as such. Why not allow the monetary authority to fix reserves from time to time at whatever point produces the desired effects?

When, however, the growing debt charges in the face of declining national income becomes a reality—one of the situations assumed by Domar—more and more pressure to cut Federal interest costs may be envisaged. Special securities, issued only to banks, carrying lower interest rates than now prevail, loans from the "Fed" and other means to reduce interest burdens may be utilized by the Treasury. The authors seem not to have fully emphasized this phase of debt management, nor to have integrated it with relevant monetary controls.

In connection with the continuation of pay-roll deductions for the sale of E bonds in the years to come, Wallich suggests the discontinuance of the plan "if contractive tendencies appear" (page 98). Of course, what is desired at such times is the maintenance of aggregate spending. Nevertheless it should be recognized, as Wallich undoubtedly would, that the doctrine advocated clashes with tenets of personal thrift. Perhaps at such times postal savings and mutual savings banks should also be handicapped, and life insurance sales made more difficult. Individual and collective economics clash at such times but other ways for meeting the situations are so effective that deterrents to individual saving, such as those suggested, may well be neglected as inconsequential.

Domar follows Hansen in his approach to the problem of the relationship of the national debt to income. He weaves into his discussion both public investment and the mature economy thesis. He also favors, as does Robinson, deficits during depressions and debt repayments during prosperity. In view of the economic effects which Domar and his associates desire, a better fiscal policy cyclically conceived would be to tax heavily for debt repayment *during prosperity* (and to keep the revenues thus collected out of the banks and security markets) but make the repayments of principal *during depressions*. This would help depress booms and prevent debt repayments from feeding them. It would also increase the flow of funds for expenditure or investment during depressions. On the whole, however, Domar is more concerned with showing that *under certain assumptions* a continuously increasing debt not only is not ruinous but may be carried at a declining relative cost. His preference for the

ethics of the ability-to-pay theory of taxation leads him to prefer public to private investment, in areas not too clearly defined, because under private capitalism the rich and poor are charged the same price for bread—if purchased in the same wrapper and at the same place, an occurrence which modern merchandising has done much to prevent. The private enterprise system sells the same products under too many wrappers, at prices designed to tap various income levels, to give Domar's argument unqualified validity. And along with the different wrappers, of course, go other "services" and prestige. In spite of this the higher charges to the well-to-do are not identical with progressive tax rates on income. This is the old controversy between needs and means, between commerce and ethics, between uniformity and progression. Should all prices or rates be fixed according to a single notion? Should all charges—whether in the public or private economy—be based on the faculty theory of taxation?

Robinson's essay is primarily concerned with the problems arising from the postwar ownership of Government securities by the banks, especially the short-terms. He suggests several plans designed to "freeze" the holdings of banks in the interest of promoting monetary stability, but prefers the use of voluntary "inducements" rather than the force of law to bring this about. He would encourage bond purchases by individuals and their retention to maturity. This is desirable but just how it is to be done is not clear. Differential interest rates to other holders of Government bonds than commercial banks are mentioned, but it is doubtful if the quantity of bonds requisite for holding by individuals to keep them out of banks and to keep down credit creation could be accomplished by such means. It should be recalled, too, that individuals, especially the rich who could buy "Governments," are also needed by society to provide the venture capital required by private enterprise. Individuals can hardly do both. Far more rigorous action than that espoused by Robinson seems to be called for, if monetary expansion is to be avoided, should individuals and corporations sell "Governments" in substantial volume. The most probable buyers will be the banking system. Only the failure of the private demand for capital to be supplied by banks will prevent increased credit expansion (mentioned by Robinson, page 73) as not much faith can be put in the reluctance of banks to decrease their capital-to-deposit ratios (also mentioned, page 73).

Credit policies for the nation are subordinated by Robinson to the requirements of debt management, whose primary objective is said to be

monetary stability. This may be only saying that the two should be one. It may mean that the requirements of the Government take precedence over those of the private economy, if those requirements can be assumed to be different. Certainly the Government *as a borrower and payer of interest* may be dominated by desires to save interest and debt administration expenses, whereas the rest of the economy may be better off, under certain circumstances, if higher interest payments are the rule. When credit policy is made the function of debt management, control of both seems logically to pass to the Treasury. But, as the needs of the Treasury *as a borrower* and the rest of the economy as *producers, consumers and lenders* may not coincide, how will the Treasury balance these interests? At present, the needs of the Government determine the policies of the banking and credit system. In the long run, neither the commercial nor the central banks can follow policies inimical to the requirements of the Government, whatever they are, for their powers flow from the Government itself, which can control bank activities as well as the length of life of these institutions. The issue is centralization *vs.* decentralization of fiscal and monetary power. Where the powers should reside is a problem for the future, unless the *status quo* is the solution. However, when Robinson makes credit policy a function of debt management, he does not discuss these problems of the division of power and responsibility for administration, nor the relation of the Treasury to the Reserve System, nor the pros and cons of making the Treasury *the* responsible monetary and fiscal authority for the nation.

Two essays on taxation are included in the symposium. Musgrave, dealing with Federal taxation, is concerned primarily with avoiding or minimizing the deflationary aspects of such taxation. Mitchell, Litterer and Domar ably describe the position of State and local governments, as well as the obstacles encountered in attempts to synchronize State-local fiscal actions with national policies. A strong case is made for the use of Federal grants-in-aid to overcome some of the rigidities in fiscal practices, as well as to provide a national minimum of essential public services. In the achievement of both aims grants-in-aid not only hold great promise but, if sharing is included, constitute the most practicable way in which the benefits of a good tax system, maintained by the Federal Government, can be utilized to help meet the service needs of the fiscally more impotent units. It is to be hoped that not all grants will be conditional; some should stimulate extensions in current services as well as improvements in quality, without reference necessarily to cyclical policies; a few should pro-

vide "free" funds (unconditional grants) to subordinate units to encourage initiative and to provide revenues for activities in which local groups are interested, safeguarded, of course, by appropriate eligibility requirements. The main difficulties with grants have been the way they change the marginal value of dollars spent by the grantees and their tendency to preserve the life of marginal governments, marginal services and marginal areas. Closer attention to effects produced might lead to improvements in the form and type of aid extended. Nevertheless the role of grants espoused by the authors is to be applauded.

In the implementation of State-local counter-cyclical expenditures, especially the financing of capital improvements, more consideration might have been given to intergovernmental loans, credit pools and banks, the guarantee of State-local credits and even to the possibilities of improving the market for and the liquidity of State-local credits via discounts and advances from the Federal Reserve System to member banks on the basis of such collateral. These possibilities need careful exploration. There is much darkness and prejudice in this corner of public finance and banking directed against State-local borrowing. There is a crying need, too, for a reorientation of Federal, State and local fiscal relationships and the development of constructive long-term policies.

Regressive taxes are roundly condemned throughout the symposium, in part through the authors' emphasis upon the avoidance of deflationary tendencies. Hardly a good word is uttered as to the usefulness of these taxes, especially sales and pay-roll taxes, as weapons for countering inflation. Mitchell, Litterer and Domar even go so far as to state that "at no time in the past two decades have economic resources been so fully employed and inflationary pressures so strong as to warrant the dominant position of such taxes in the tax system as a whole . . . A better balanced revenue system in terms of its effect on the full utilization of the nation's economic resources would have drawn a smaller tax contribution from the lower income groups" (page 117). What about the speculative period of the 1920's—would not substantial sales taxes have been useful to help stop that inflation? The so-called Mellon income tax reductions of that period were irrational, all will agree. Even despite these reductions, however, sales taxes would have helped combat the boom. Then during World War II Federal taxation was not the effective anti-inflation force it should have been. Not enough purchasing power was taken from low-income groups either by way of bond sales or income taxes to counter upward pressures on prices. Sales taxes and increased pay-roll taxes

would have been anti-inflationary in their effects. When the problem is to check inflation, taxation, as an instrument of policy, should be directed against the accumulating forces. During World War II that spot was in the lower income brackets. Notions of tax justice based on faculty theories are not satisfactory standards for price or monetary controls.

Part of the same argument is involved in the discussion which led to the repeal of the lower exemptions for the normal Federal income tax. The effect of this is to raise the exemption levels for income taxation. (See Musgrave, table on page 50). This has made the personal income tax a less effective weapon for fighting inflation than it was. And one of the real problems, economic as well as political, year in and year out, has been to get income taxes into the low brackets and to keep them there. The raising of exemptions returns the income tax to its role as a class tax, the groups affected becoming more restricted with each increase in exemptions. This is desirable neither from the point of view of political democracy, where those above the subsistence level should be called upon to make direct payments to the support of government, nor from the economic standpoint of maintaining an instrument to reach mass income and purchasing power. The real question is the rate of taxation to be employed, not whether citizens with positive income should be taxed. In 1940, for example, income tax returns numbered 14,700,000; the number of taxpayers was only 7,505,000—double the record for any previous year in tax history. The exemptions were $2,000 for married couples and $800 for single persons. In 1944, when exemptions for married couples were reduced to $1,200 and those for single persons were cut to $500, the tax returns jumped to 48,000,000 and the number of taxpayers to 43,000,000. About one-third of the population thus became direct supporters of the National Government. This is a healthy condition and should be preserved. Let it not be forgotten that the state is a political as well as an economic institution.