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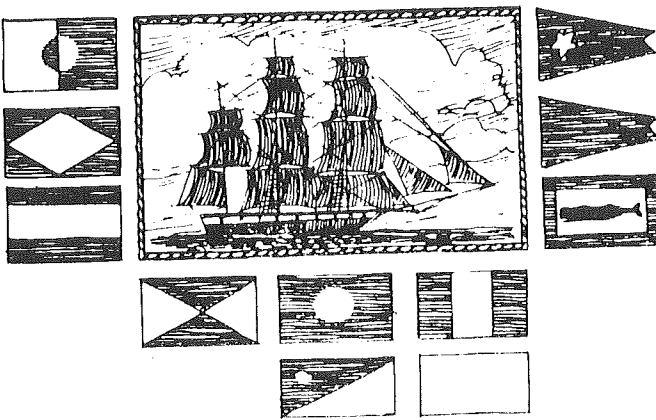
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PROCEEDINGS OF A
CONFERENCE
HELD IN
JUNE 1970

FEDERAL RESERVE BANK OF BOSTON

Financing

STATE AND LOCAL

GOVERNMENTS

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FOREWORD

The papers included in this volume were presented at
a conference sponsored by the Federal Reserve Bank of Boston
in June, 1970.

The conference, which brought together a distinguished group
of state and local finance specialists, was the third in a series
dealing with important issues affecting monetary policy. The
proceedings of the first two conferences, *Controlling
Monetary Aggregates* and *The International Adjustment
Mechanism,* are currently available. A fourth conference,
exploring the topic "Housing and Monetary Policy," will be
held in October, 1970, and those papers will also be published
and made available by this Bank.

There is clearly room for doubt that the existing structure for
financing state and local governments will be adequate to meet the
burdens which will be imposed upon it in the decade ahead. It is
hoped that this volume will contribute to the continuing
discussion and policy decisions in this area.

Frank E. Morris

Frank E. Morris
President

Boston, Massachusetts

September, 1970

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Revenue Sharing Revisited

JOSEPH A. PECHMAN*

I hesitate to discuss revenue sharing on still another occasion, since I have already exhausted myself in the public discussion of this simple but controversial idea. Moreover, now that a national administration has recommended revenue sharing, there are people who can defend it with superior resources than those I can command.

Nonetheless, it might be helpful to review the objectives and basic features of the original revenue sharing proposal and compare them with the plan developed by the Administration, and to discuss the major issues that still remain. To avoid suspense, I want to assure you that I still believe revenue sharing would make a significant contribution toward the improvement of federalism in this country, and I am delighted to welcome the President of the United States and members of his Administration into the club of revenue sharing enthusiasts.

Objectives of Revenue Sharing

The purpose of revenue sharing is to allocate to the states and local governments *on a permanent basis* a portion of the very productive and highly "growth-elastic" receipts of the Federal government. The bulk of Federal revenues is derived from income taxes, which rise at a faster rate than income as income grows. By contrast, state-local revenues barely rise in proportion to income.

State-local needs have outstripped the potentialities. of their

revenue systems at constant tax rates, with the result that tax rates have been pushed steadily upward throughout the postwar period and many new taxes have been added. Since state-local taxes are on balance regressive, the higher state-local taxes impose unnecessarily harsh burdens on low-income recipients. In addition, essential public services are starved by governors, mayors, and legislators who try to avoid the politically distasteful (and sometimes politically suicidal) choice of increasing taxes.

But why revenue sharing? Why not use the traditional categorical grant system to help relieve the financial burden of the state and local governments? The answer is that unrestricted as well as conditional grants are needed to achieve the objectives of federalism, and the system would be deficient without both types of grants.

Conditional grants are justified on the ground that the benefits of many public services "spill over" from the community in which they are performed to other communities. Expenditures for such services would be too low if financed entirely by state-local sources, because each state or community would tend to pay only for the benefits likely to accrue to its own citizens. States have a well-developed system of conditional grants to local governments for this reason. Additional assistance by the Federal government is needed to raise the level of expenditures closer to the optimum from the national standpoint.

Unconditional or general purpose grants are justified on substantially different grounds. The basic need for unconditional grants arises from the obvious fact that all states do not have equal capacity to pay for local services. The poorer states are simply unable to match the revenue-raising ability of the richer states.

Even if the Federal government adopted a negative income tax which lifted all poor persons to the officially defined poverty lines, the low income states could not afford to support public services at a level that approached adequacy.

As a matter of fact, the poor states have been making an average tax effort in recent years (much better than average, if an allowance is made for the fact that the first $500 or $750 per capita has little or no capacity to pay), and it is understandable that their fiscal plight has not been alleviated to any substantial degree.

A second reason for unconditional grants is that Federal use of the best tax sources leaves a substantial gap between state-local need and

state-local fiscal capacity. Moreover, few states push their rates much higher than the rates in neighboring states for fear of placing their citizens and business enterprises at a disadvantage. This reasoning justifies some Federal assistance even for purely state-local activities, with the poorer states needing relatively more help because of their low fiscal capacity.

Thus conditional and general purpose grants have very different functions and these cannot be satisfied if the Federal system were limited to one or the other. Considering the large unmet needs throughout the country for public programs with large spillover effects, the adoption of revenue sharing should not be the occasion for reducing conditional grants. Indeed, to meet these needs, it will be necessary to allocate Federal funds simultaneously to revenue sharing and to the conditional grant programs. Conversely, the fact that there is an urgent need for more generous financing of the categorical grants is neither a sufficient nor a necessary condition for abandoning the revenue sharing idea.[1]

Major Features of the Original Plan

The core of the original plan was the regular distribution of a specified portion of the Federal individual income tax to the states primarily on the basis of population, and with no strings attached on the types of expenditures that could be made with these funds. The essential features of the plan are as follows:

1. *A percentage set aside.* The Federal government each year would set aside for distribution to the states a certain percent of the federal individual income tax base (i.e., taxable income of individuals

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[1]Most critics of revenue sharing often overlook the point made in this paragraph. Walter Heller and I have always emphasized that revenue sharing should be accompanied by *increased,* not reduced or constant, categorial grants. Thus, Table 2 of the Musgrave-Polinsky paper in this volume does not contain an accurate representation of how our version of revenue sharing would operate in practice. Using the Musgrave-Polinsky definition of state-local deficiencies and the illustrated categorial grant programs, our revenue sharing plan would be a combination of one of the three top lines in their Table 2 with one or more of the succeeding five lines. For example, the additional federal transfers of $5, $10, and $20 billion might be divided equally between the Javits version of revenue sharing (line 3) and welfare assistance (lines 4 or 5) or school assistance (lines 5 or 6), or in some other reasonable proportion. If this were done, revenue sharing would be much more effective in removing state-local deficiencies than Musgrave and Polinsky show in their Table 2 and might even do better than their categorical grant alternatives.

after deductions and exemptions). The plan was to begin with a 1 percent allocation that would increase, say, by .2 percent for five years, until it reached 2 percent. However, the particular percentages were acknowledged to be illustrative and it was understood that the ultimate decision would depend on the elbow room in the Federal budget.

2. *Automatic allocations of grant funds.* The funds allocated to the plan would be distributed automatically to the states and local governments without annual appropriations. A trust fund arrangement was suggested for administering the plan to underscore the fact that the states and local governments should receive the funds free from the uncertainties and hazards of the annual appropriations process. However, there are other devices to achieve the same objective.

3. *Unrestricted nature of the grants.* There would be no constraints on the use of the funds by function, with the exception that highway expenditures were to be excluded, since there is a special Federal trust fund with its own revenue sources earmarked for this purpose.

4. *Distribution formula.* The basic method of allocating the funds would be in proportion to population. But the plan envisaged modification of straight per capita grants in two respects: first, the per capita amounts would be multiplied by a tax effort factor, to provide an incentive for states and local governments to increase their own fiscal effort; and, second, a small proportion of the total funds available, say 10 percent, would be allocated (again on a per capita basis) to the lowest income third of the states.

5. *Pass-through to local governments.* The original plan had no mandatory pass-through to the local governments. Some supporters of revenue sharing felt from the beginning that a minimum pass-through should be provided in the legislation. Others believed that it would be unwise to insist on a particular allocation between the states and local governments, because conditions varied greatly throughout the country and no one formula could take them fully into account.

The Administration Proposal

It is remarkable that the Administration's proposal follows the original plan almost to the letter. The amount set aside is a fraction

of the individual income tax base, rising by 1976 to 1 percent of taxable income four years earlier (to allow for the inevitable delay in publication of Statistics of Income). The grants are on an unrestricted basis — even highway expenditures are permissible — and the state allocation is on a per capita basis modified by tax effort. To assure an automatic flow of funds, a permanent and indefinite appropriation would be authorized to cover the stipulated percentage of taxable income.

The innovation in the Administration proposal is a specific mandatory pass-through of a portion of the grant funds to the local governments, a feature that was left open in the original. Local governments in any state would receive at least the same proportion of state-local general revenues that they accounted for in the most recent year for which Census data are available. I shall discuss this feature of the proposal in more detail later.

Some Remaining Questions

Revenue sharing has generated numerous proposals for reform of the Federal-state-local fiscal system, and practically everyone with a pet idea has proposed that it be attached to the revenue sharing bill. I shall confine myself to three points that seem to be of some significance.

1. Many have recommended a Federal income tax credit for state income taxes as a supplement or substitute for revenue sharing. For example, the bill drafted by the Advisory Commission on Intergovernmental Relations includes an income tax credit as well as revenue sharing. On the other hand, the Committee for Economic Development has endorsed the income tax credit, but opposes revenue sharing.

The income tax credit is a device to encourage states to adopt personal income taxes as part of their permanent revenue systems. This is a laudable objective and I would support the credit if there were room in the federal budget for both the credit and revenue sharing. However, the credit must be given a low priority when the Federal budget is tight, because it has a perverse distributional effect between poor and rich states. Since the amount of the credit is a positive function of income, it is by its very nature more helpful to rich states than to poor states. (I know of no feasible way of correcting this perverse effect.)

Furthermore, the benefits of the credit for the 37 states that now have income taxes would accrue in the first instance to the taxpayers as a tax reduction, rather than as added tax receipts of their governments. Fiscal resources for state-local programs would not be augmented unless the states raised tax rates, and thé entire Federal revenue loss would be available for public services only if the states raised tax rates by the full amount of the credit.

In present circumstances, Federal fiscal assistance should flow directly into state and local government treasuries to avoid use of the Federal funds for tax reduction.

Finally, I see no reason why the Federal government should, at this time, penalize state governments that have already adopted a progressive revenue source and help those that have been laggard in progressive taxation. My own preference would be to add the revenue loss from the credit to the proposed revenue sharing funds and require all states to have effective income taxes (defined, say, as taxes that yield at least 3 percent of personal income) to be eligible for the revenue sharing grants.

2. Congressman Henry S. Reuss and others have been arguing that the Federal government should use its fiscal resources to help improve the management and administration of state and local governments. Virtually no progress has been made to eliminate unnecessary units of government, to consolidate units that are too small to operate efficiently, and to provide local services for natural geographic areas rather than on the basis of political subdivisions that make no economic sense. Mr. Reuss proposes that, along with revenue sharing, the federal government should finance a national effort to rationalize the state-local governmental structure and to provide incentives for efficient management.

There is no question that the state of affairs is deplorable, and some new dramatic device needs to be used to shake state-local officials out of their lethargy. Mr. Reuss would require only that state governments prepare a master plan and timetable for modernizing and revitalizing their governmental structures to be eligible for the revenue sharing grants. The details would be left to the states themselves.

Provided that this modification would not involve constraints on the spending of the revenue-sharing funds, it seems to me that the Reuss modification would have the desirable effect of focussing

attention on an important national problem. Federal assistance for a country-wide effort to improve the governmental structure of our states and local governments might provide substantial benefits. The experiment is worth a try, since reform is so urgently needed in this area.

3. Revenue sharing would miss its mark if it failed to relieve some of the intense fiscal pressures on local, and particularly urban, governments. The question is not *whether* revenue sharing should put funds at the disposal of local governments, but *how*.

All states give aid to local units and most give significant amounts. As a matter of fact, the state grant-in-aid system for local governments is much more highly developed than the Federal grant system. In the aggregate, transfers from state to local governments account for more than a third of state expenditures and about 30 percent of local general revenues.

By contrast, Federal grants amount to only 18 percent of state-local revenues. Thus, even without any specific requirements, local governments would receive a third or more of any general funds the states might receive from the Federal government.

Nevertheless, in the light of urgent local needs and the observed tendency of some state capitals to shortchange their major central cities, I have been persuaded that an explicit "pass-through" rule may be desirable to recognize the legitimate claims of local government.

The two competing alternatives are those recommended by the Advisory Commission on Intergovernmental Relations (ACIR) and the Administration. The ACIR would confine the mandatory pass-through to local governments with populations of 50,000 or more. The Administration would distribute the funds on the basis of the present distribution of taxes levied directly by the states and local governments. The debate over these two approaches can become heated, but I am rather agnostic about this particular feature. The issue cannot be resolved on any scientific basis, and I would leave the matter to the judgment of the Congress where close political decisions should be made.

Conclusions

It is clear that, for the long pull, the states and local governments will be unable to meet their growing needs without substantial

assistance from the federal government. Part of this additional assistance will come from specific grant programs. But the states and local governments will need supplementary assistance in the form of general aid to finance other essential activities.

Revenue sharing is designed to assist local as well as state governments. Even if the funds go initially to the states, it should be possible to design a mandatory pass-through to guarantee a fair share for local governments.

The plan would provide the states and local governments with a growing source of revenue from a tax source that is much more equitable than most of those now available to them. This would provide an additional margin to help them finance needed state programs and to improve their own grant programs for local governments. Revenue sharing may not be a panacea for all our ills, or even for the most virulent ones, but it would certainly help to strengthen our federal system of government which seems to be cracking under the strains imposed upon it by an affluent and divided society.

Revenue Sharing—
A Critical View

RICHARD A. MUSGRAVE and A. MITCHELL POLINSKY

The current discussion of revenue sharing reflects a wholesome shift away from preoccupation with Federal finances and toward a more comprehensive view of our fiscal structure, Federal, state, and local. Attention is focused, and rightly so, on current issues that call for immediate solution.

The fiscal plight of the cities and the need for expanded social programs are the crux of the problem. But the debate also poses the broader question of how a sensible fiscal structure of Federalism would be arranged and what kind of solution one should be striving for in the longer run.

I. Principles of Fiscal Federalism

To sketch this background, we begin by setting forth very briefly what the ground rules for fiscal Federalism should be. For brevity's sake and at the risk of sounding dogmatic, these will be summarized in five basic principles:

1. *The principle of diversity:* The Federal system should leave scope for variety and differences in fiscal arrangements pertaining to various states and localities. Communities may differ in their preferences for public services and should not be forced into a uniform pattern. Let the flowers bloom.

2. *The principle of equivalence:* Cognizance must be taken of the fact that the spatial scope of various public services differs. The benefits of some are nationwide, such as defense; those of others

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are region-wide, such as roads and flood control; and those of still others are local, such as city police or street lights. Similarly, the burden incidence of some taxes can be confined to a particular area more readily than that of others. For fiscal arrangements to be truly efficient each type of service would be voted on and paid for by the residents of the area which benefits.

3. *The principle of centralized redistribution:* The redistributive function of fiscal policy (i.e., progressive taxation and transfers) should be centralized at the Federal level. Otherwise, redistribution becomes ineffective and location decisions are distorted.

4. *The principle of locational neutrality:* Regional fiscal differences tend to interfere with the location of economic activity. Some degree of interference is an inevitable cost of fiscal Federalism, but it should be minimized. Differential taxes which (in the absence of offsetting differential benefits) distort location decisions should be avoided.

5. *The principle of centralized stabilization:* The use of the fiscal instrument for purposes of macro (stabilization, growth) policy has to be at the national level. State treasuries, like regional Federal Reserve Banks, cannot make stabilization policy on their own.

These principles are more easily stated than applied. In the real world fiscal institutions are the result of historical forces and imperfect in many respects. Various public services are not readily classified by their spatial incidence; existing jurisdictions frequently do not correspond to benefit areas, spill-overs occur, and more suitable jurisdictions are difficult to create; in other cases, jurisdictions are saddled with the spill-in of national burdens which are not of their making; the cost of taxes used to finance local benefits may be shifted to nonresidents; state and local finances do not operate in a setting where adequate distributional adjustments have been made at the Federal level, and so forth. For these and other reasons the design of fiscal Federalism should allow for three supplementary criteria:

6. *Correction for Spill-overs:* Benefit spill-overs between jurisdictions lead to inefficient expenditure decisions. This calls for correction by higher levels of government.

7. *Minimum Provision for Essential Public Services:* The national government should assure that each citizen, no matter in which

state or locality he resides, is provided with a minimum level of certain essential public services, such as safety, health, welfare, and schooling.

8. *Equalization of Fiscal Position:* While redistribution is primarily an inter-individual matter, the existence of sharp regional differences in the balance between fiscal capacity and need among governments cannot be disregarded entirely. Some degree of fiscal equalization among governments is called for so that minimum service levels can be secured with more or less comparable tax efforts.

Not all these points are of equal importance for this discussion, and the last two are more controversial than the others. However, we shall find them to be necessary conditions of a sound fiscal Federalism in the current U.S. setting, and essential to a solution of our fiscal crisis.

II. *Fiscal Needs and Resources*

With these considerations in mind, we now turn to the role of revenue sharing, first proposed by Walter Heller in 1964. At that time, economists were concerned with countering a slackening economy and averting the repetition of stagnation by "fiscal drag," such as had occurred in the late fifties. The outlook was for a steadily rising Federal full-employment surplus and widespread fiscal deficiencies at the state-local level.

In this setting, the transfer of Federal revenue to the states and localities would avoid repetition of fiscal drag and do so better than tax reduction. At the same time, it would serve to finance a wide range of state and local needs and do so with a tax structure superior to that at the state-local level. To expedite enactment and minimize opposition, the plan was proposed in the simplest possible form, i.e., distribution to the states on a population basis, without strings and pass-through provisions.

This is also said to have been the spirit of the Johnson task force report under the chairmanship of Joseph Pechman. Since then much has happened. The scene, initially so conducive to revenue sharing, has undergone substantial change.

Federal Outlook

It is now apparent that the silver lining on the fiscal horizon has

been tardy in developing. The magic formula of "$15 billion annual built-in revenue gain minus $10 billion annual expenditure increase (present programs) equals a $25 billion dividend in five years, which, after adding a $20 billion one-shot reduction in defense, gives a $45 billion surplus five years from now" has refused to materialize.

The revenue response has been slowed down by premature (current and postdated) tax reduction, the hoped-for decline in defense spending has been slight, and increases in other programs (including the Great Society programs of the Johnson Administration and the proposed plans of the Nixon Administration) have outweighed the reductions that did occur. The immediate prospects are for deficit rather than surplus, and the current discussion is in terms of finding new revenue rather than of disposing of surplus. Most important, it now appears that a fiscal dividend in the $40 to $50 billion range is unlikely to materialize even over the next five years or more.

Recent estimates by Charles Schultze visualize a potential full-employment surplus of $23 billion for 1975.[1] This figure allows for the effects of the Tax Reform Act of 1969, for built-in increases in present programs, as well as for the Administration's welfare and revenue sharing plans. Vietnam expenditures are assumed to have fallen to $1 billion and defense expenditures are reduced (in real terms) by $9 billion below 1971 levels.

Schultze further holds that a budget surplus of $10 billion will be needed if the Administration's housing goals are to be implemented in a noninflationary fashion. His free dividend is thus reduced to $13 billion, or $18 billion prior to the Administration's revenue sharing program.

While it is difficult to predict the need for surplus five years from now and while we would be unwilling to place general (as against low-cost) housing expansion ahead of social programs, it is evident from these estimates that the Federal budget outlook is not one of unlimited slack. Not only will the budget remain tight over the next couple of years, but even by 1975 the magnitude of potential slack will be substantially less than had been expected.

State-Local Outlook

At the state-local level we also note some change from the earlier

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[1] For reference, see Table 1.

TABLE I

FISCAL OUTLOOK AND VERTICAL IMBALANCE
(Fiscal years and billions of dollars)

		1971	1975
FEDERAL			
Revenue			
1.	Employment Taxes	49.1	68.8
2.	Other Taxes, etc.	153.0	207.2
3.	Total, budget revenue	202.1	276.0
Expenditures			
4.	Defense	73.6	75.0
5.	Grants-in-aid	24.8	33.0
6.	Other	102.4	140.0
7.	Total, budget expenditures	200.8	248.0
8.	Balance, expenditure account	1.3	28.0
STATE AND LOCAL[1]		**1967**	**1975**
Revenue			
9.	Own Revenue	76.4	141.2
10.	Federal Grants	15.5	33.0
11	Total	91.9	174.2
Expenditures			
12.	Total	96.8	191.4
13.	Balance	-4.7	-17.2
14.	Net Borrowing	4.7	10.7
15.	Deficiency[2]		6.5
16.	GNP	985	1,428

Lines 1–8: From C. L. Schultze, *Setting National Priorities, The 1971 Budget,* The Brookings Institution, 1970.

Lines 9–15: See W. H. Robinson, "Financing State and Local Government: the Outlook for 1975," Table 9. Profits on liquor stores is included in (9). Additional employee retirement and deficit in utility operations are included in (12). (13) equals net borrowing minus addition to liquid assets.

For revenue data see p. 181. For 1971 expenditures, see p. 12. For 1975 expenditures total see p. 186. Schultze's figure of $253 billion is reduced by $5 billion to exclude revenue sharing. For figures on national defense in 1975 see p. 184. The grant-in-aid figure for 1975 is taken from line (10) increased by $5 billion for revenue sharing and line (6) is residual.

Line 16: The figure for 1975 from Schultze, *op. cit.,* p. 180. Rate of price increase is assumed to taper off from 4½ percent in 1970 to 2¼ percent in 1975. Unemployment is assumed at 3.5 percent after 1973. The 1975 GNP underlying lines 9–13 (see Robinson, *op. cit.*) is assumed at $1,340 billion.

setting. Whereas the estimates of a few years ago projected a rapidly rising level of deficits, more recent approaches give a less alarming picture. W. H. Robinson estimates that in 1975 state and local expenditures will be at $191 billion after allowing for increased work load due to rising population and for quality improvement at past rates.[2] Revenue, including Federal aid expanding at normal rates, is estimated at $174 billion, leaving a deficit of $17 billion.

Of this, $11 billion will be covered by normal borrowing, leaving a gap of $6 billion. This is only slightly above what the Administration's revenue sharing program would add annually by 1975. Alternatively, it could be met by a 5 percent increase in tax rates at the state-local level, an increase which seems well within the reach of state-local governments, given their past record of rate increases.

Vertical Imbalance and New Programs

Putting the two sides together, one appears to arrive at a fairly complacent conclusion. While the prospective Federal excess will not be as substantial as had been expected, neither will be the deficiency at the state-local level. This conclusion, however, is misleading in two respects.

A first flaw is that these estimates do not allow for major new programs which will become part of the public agenda. While a start has been made under the Johnson and Nixon administrations, this is surely just a beginning. The Administration's welfare plan is a qualitative improvement but amounts to very little in magnitude. There clearly remains the need for a major move towards an income maintenance plan, be it through a negative income tax or in some other form. Urban reconstruction, improved primary and secondary education for the disadvantaged, low-cost housing, and anti-pollution measures are other items. The cost of these programs can (and should) easily reach the prospective excess of Federal revenue by 1975. The dividend dollars, if and when they materialize, will not be lacking of claimants. Rather, the problem will be one of using scarce dollars in the most efficient fashion.

In place of the 1964 outlook for a large and freely available Federal dividend, combined with a widespread deficiency at the state-local level, we now find (1) that only a limited Federal surplus is in sight, (2) that state-local resources will keep approximately (though not quite) in step with rising costs of existing programs, and

[2]For reference, see Table 1.

(3) that substantial new programs — in particular, programs oriented toward poverty and disadvantaged groups — will be called for.

It follows that the bulk of the potential revenue slack will be needed to finance these social programs. If one accepts these priorities, the case for revenue sharing at this time depends on what it contributes to meeting them. This is to say, it depends on whether responsibility for these programs can be centered at the state-local level; and if so, whether *generalized* sharing will produce the proper distribution of funds.

The answer is no on both counts. Any major expansion of income maintenance must be uniform on a nationwide basis. This follows from the principles of equivalence and centralized redistribution. It is clearly a Federal function and has to be performed at that level. Such a program implemented at an adequate scale will cost at least $10-15 billion. It alone might well absorb the available slack in the Federal budget, not to speak of other urgent programs such as rehabilitation of urban slums.

Given our premise that concern with poverty should receive top priority, these programs outrank generalized revenue sharing. The basic hypothesis of generalized vertical imbalance — Federal excess with state and local deficiency — is invalid. On the contrary, we are fortunate in that the excess revenue will accrue where it will be most needed, that is, at the Federal level.

But though there may be no generalized vertical imbalance, it does not follow that there exists a happy coincidence of revenue sources and needs throughout the system. Taking too aggregative a view is misleading. Though there may be no major imbalances (in terms of these estimates) for state and local governments as a whole, this does not exclude a mismatching of resources and needs among states or areas within states. Far from it. The gross deficit (total deficit of deficit units) is substantially larger than the net deficit of $6 billion (which includes the surplus of surplus units). The system is riddled with instances of regional imbalance, to some degree on an interstate basis, but primarily among areas within states. This is brought out most strikingly in the fiscal dilemma of the older cities although it is by no means only an urban phenomenon.

It is this horizontal imbalance which is the real trouble and toward which the potential surplus must be directed. Moreover, this imbalance is linked to the burden of present social expenditures and

to the new social programs that are needed. As we shall see presently, solving the one will also go far in solving the other.

III. Instruments of Inter-governmental Transfer

Before proceeding with this point, let us pause to compare the merits of alternative techniques of matching needs and resources. Revenue sharing, categorical grants, transfer of expenditure functions, tax credits all present possible approaches. What are their characteristics and how well are they suited to meet the present situation?

Similarities

To begin with, there are similarities as well as differences. In particular, there is no sharp distinction between revenue sharing and grants. Revenue sharing, after all, involves the making of grants, and grants involve the sharing of revenue. Revenue sharing with a population-based formula is similar to a population-based grant. Revenue sharing without strings is equivalent to block grants, while sharing with strings is equivalent to categorical grants. Addition of an effort element into the sharing formula is similar to adding a matching requirement and so forth.

Both the Administration and ACIR (S.2483) plans provide for a population-based block grant with a slight matching (or revenue effort) requirement. The Javits plan gives 85 percent of the cost to this type of grant, but distributes the remainder among the lower income states in inverse relation to per capita income.

But though there is a formal equivalence between grants and revenue sharing, there is an important difference in emphasis between the two. The sharing approach is typically viewed in terms of unconditional block grants (without strings) and only a modest equalization effect, while the grant-in-aid approach is traditionally viewed in terms of categorical and matching grants with considerable emphasis on equalization. The basic questions, therefore, are (1) should the transfers be general or categorical, (2) should they be nonmatching or matching, and (3) should they be heavily equalizing or not?

Block versus Categorical Transfers

There is a strong case for the block (no strings) approach, inherent in general revenue sharing, if the purpose of revenue transfer is merely the substitution of Federal for state-local taxes. In this case

there is no reason for interfering with the use of the funds. Substitution of Federal taxes is a worthwhile objective in itself. Federal taxes — the progressive income tax in particular — are superior. They are more equitable, more easily administered, and locationally neutral. But improving the composition of the tax structure is not enough, nor can it be given top priority at this time. The priorities are on the expenditure side and the question is whether they will be better served with or without Federal strings.

The argument in support of the block (no strings attached) approach is that state and local governments are closer to the people and know better what they want. This is our principle of diversity. The opposing case, stated in our principle of equivalence, is that the national government has primary concern with services whose benefits are nationwide in scope. Moreover, it may wish to assure minimum levels of selected services which are considered most essential and treated as "merit goods." At the same time this does *not* justify an across-the-board support of *all* public services at the state and local level. Unconditional Federal financing of local public services is difficult to reconcile with the principles of fiscal Federalism. It conflicts with the principle of equivalence and meets neither the equalization nor the minimum-standard criteria.

This objection does not apply to categorical grants which deal with services of national importance (correction for spill-overs) or set specific minimum standards. This has been the traditional intent of categorical grants, and on the whole these grants have worked well. While there is some reason for complaint about excessive proliferation of such grants, this does not invalidate a sensible use of the categorical approach.

A desirable compromise might be to consolidate the existing 400 plus grants into a smaller number covering broader categories, and to provide a mechanism by which such programs can be subject to periodic review, as has recently been proposed by ACIR. While a good deal can be done to improve the present system, the categorical approach is basically sound and should be retained at least over the area to which it now applies. This appears to be accepted by most parties to the debate. The Heller-Pechman plan, in particular, makes it clear that the proposed revenue sharing is to be supplementary to, not in lieu of, existing categorical grants.

At the same time, as far as new outlays are concerned, revenue sharing competes with expanded categorical grants or direct federal

programs. If there is to be revenue sharing, the same arguments which support categorical grants also suggest that some strings be attached, both with regard to assigning the funds to broad service areas (those most essential from the national point of view) and to maintaining minimum standards. The objection to earmarking along broad expenditure categories is that it may be easily evaded. If transfers or grants are earmarked for purpose A, the receiving government can always direct its own resources towards area B. This difficulty exists, but it is not insuperable, especially if coordinated with consolidation of existing specific grant programs into larger units.

Apart from earmarking provisions, legislation to make new funds available may also be used to encourage other improvements in state-local performance, such as consolidation of governmental units called for in the Reuss bill,[3] or the adoption of performance standards for certain programs.

Outright versus Matching Grants

Moreover, the difficulty of sidestepping grant objectives goes farther and points to a serious shortcoming of any outright (as against matching) grant approach. Just as earmarked grants may be diverted to other uses, so may outright grants be diverted into state-local tax reduction (or omission of increase) rather than provide more adequate expenditure programs. The grant is then equivalent to a transfer to those individuals whose taxes are reduced. There is no objection to this as long as the result is merely substitution of superior Federal for less desirable state-local taxes. But it is not sufficient if the transfer is also designed to secure higher expenditure levels. For this objective, matching type grants are clearly more efficient. They reduce the own-cost of public services and exert a substitution effect which the outright grant fails to provide.

As noted before, the inclusion of a tax effort component into the revenue sharing formula (all the major proposals contain an effort component) does in effect act as a matching provision. If the grant received by any one state depends on the product of its population

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[3] See "Revenue Sharing as a Means of Encouraging State and Local Government Reform" by Representative Henry S. Reuss in *Revenue Sharing and its Alternatives: What Future for Fiscal Federalism?*, Joint Economic Committee, 90th Congress, July 1967, Volume 2, page 977. The latest version of this plan is H.R. 11764, "The State and Local Government Modernization Act of 1969," introduced on May 28, 1969.

and tax effort (ratio of tax revenue to personal income) relative to that for all states as a whole, then any one state (acting by itself) may increase its grant by increasing its tax effort. Taking the Administration's plan, this works out for Massachusetts as 7 cents per additional dollar of tax revenue, i.e., a matching rate of 7 percent.[4] By the nature of the formula, the matching rate works out somewhat higher for poorer states, but it remains at a generally low level.

While the effort component is not an adequate substitute for a matching provision, it does serve a useful purpose on other grounds. If the equalization criterion is applied, the donor states (i.e., those that are fortunate enough to be fiscally strong) are entitled to assurance that the donee states (i.e., the less fortunate states which are fiscally weak) make an adequate effort of their own. They can be more readily expected to help those who help themselves, than to support free riders. The effort component should thus be in the formula, but it is not an adequate substitute for matching.

Tax Credits

While tax credits bear some similarity to the revenue sharing and grant approaches, there are also important differences. Suppose that income taxes at both Federal and state levels are proportional, that

[4]The formula under the Administration proposal is

$$G_j = B \frac{N_j R_j}{Y_j} \bigg/ \sum \frac{N_i R_i}{Y_i}$$

where G_j is the grant to state j, B is the total amount distributed, N_j is population in the state j, Y_j is personal income in state j, and R_j is state and local tax revenue in state j. Setting B = \$5 billion; N_j for Massachusetts = 5.4 million; Y_j = \$18.9 billion; and R_j = 2.0 billion. Using figures for 1967, the aggregated term in the denominator equals 19763.47, and we obtain

$$\frac{dG_j}{dR_j} = .0722.$$

For a similar computation, see Charles J. Goetz, "Federal Block Grants and the Reactivity Problem," *The Southern Economic Journal*, July 1967.

the entire revenue of states comes from the income tax, and that the Federal credit for state taxes is paid to the state treasury rather than to the taxpayer. Given these conditions, a 50 percent Federal credit would be equivalent to a 50 percent matching grant.

Actually, these conditions are not met. Since the credit is given to the taxpayer rather than to the state treasury, the latter may not be able to recoup and to raise its taxes accordingly. In this case, the credit becomes a Federal grant to individuals. But even if it were to go to the state treasury, the credit approach differs in two respects. Since the states use a variety of taxes other than the income tax, the credit device — being in the nature of categorical revenue matching — may be used to improve the composition of the state-local tax structure.

As a device for tax structure improvement, it thus ranks ahead of grants or general revenue sharing.[5] But against this advantage, the credit has the disadvantage that it does not permit application of the equalization criterion. Federal support is necessarily related to the own revenue of the locality. Since the equalization aspect turns out to be of central importance, we do not assign a major role to the credit approach.

Transferring Expenditure Functions

The final technique is that of transferring expenditure responsibilities rather than revenues. This would be a weak candidate if the revenue deficiency at the state and local level were general, and all state-local programs were equally important to the nation. But neither condition holds. Rather, the incidence of fiscal imbalance is uneven. National priorities apply, and the two problems are not unrelated. The transfer of some expenditure functions (or the financing thereof at the Federal level) thus becomes a major contender.

IV. Horizontal Imbalance and Equalization

This brings us to the crux of the problem, i.e., the existence of horizontal imbalance on the one side and the need for more adequate

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[5] Substitution of a credit for the present deduction would redirect the grant from higher towards lower income recipients. Under a recent C.E.D. proposal, a credit is added to the deduction, but the credit is limited to a given percent of the *net* cost imposed by the state tax, allowing for reduction in Federal tax due to deduction of state tax. See *A Fiscal Program for Balanced Federalism*, Committee for Economic Development, June 1967, Appendix V.

social programs in dealing with poverty on the other. While the
problem of distribution is primarily one of distribution among
individuals (not governments), the issue of "poor governments"
exists as well; and it does precisely because the state of distribution
among individuals is unsatisfactory. How are these two key problems
related, and how can they be met at the same time?

Interstate Differentials

To measure imbalance among states (using the term to include
state and local functions within states), it is necessary to design
measures of fiscal capacity and need. Capacity is measured in terms
of the per capita yield of a representative state-local tax system.
Need as here defined is measured as the cost of supplying average
performance levels for the existing mix of state-local programs.[6]

Measurement is possible, without too much difficulty, on the
capacity side. Using income as a rough guide, we find per capita
income of the lowest state to be about one half that of the highest.
Better indicators of fiscal capacity may be obtained by applying a
model tax system to the various states. Here we find an even wider
spread, with per capita capacity at the top of the scale nearly three
times that at the bottom.[7]

Determination of need (or better: of relative expenditure levels
required to provide equal service levels) is a much more difficult
proposition. Per capita expenditures are readily available and differ
widely, although not as much as fiscal capacities. Federal transfers
are an equalizing factor, as is a tendency for states with low
capacities to exert a greater effort. The important point, however, is
that relative expenditure levels do not measure relative need.

The cost of providing similar service levels differs due to both
differences in factor prices and in the inputs required to achieve
similar outputs (road maintenance in Florida calls for lower inputs
per mile than in Vermont). Also, different communities vary in their
preferences and choose to furnish (or are capable of furnishing)
different service levels. Relative needs, therefore, cannot be deduced
from expenditures. They are difficult to measure, for both concep-

[6]For a further discussion of needs, see Appendix, p. 1.

[7]See *Measures of State and Local Fiscal Capacity and Tax Effort* (October, 1962),
Table 13, Advisory Commission on Intergovernmental Fiscal Relations.

tual and statistical reasons.[8]

Yet, a measure of relative capacities and needs and of capacity-need differentials is required to determine what pattern of equalization is called for. More information is required than rough generalizations, such as that per capita distribution favors the Eastern seaboard states, while distribution with allowance for average income favors the South. In the absence of a comprehensive study of needs, leading to a composite needs index, we attempted to take a stab at the problem.

Using 1960 data, we endeavored to compute an index of fiscal position, showing the differential between capacity and need for each state, standardized such that the sum of excess needs (in excess-need states) equals the sum of excess capacities (in excess-capacity states). We then raised the level of need by $5, $10, and $20 billion respectively by proportionately increasing the levels of existing needs. Finally, we applied a number of revenue sharing plans of corresponding magnitudes but with different distribution patterns. The efficiency of these plans was then measured in terms of the resulting percentage reduction in excess needs.

The assumptions and procedures of the study are explained in the Appendix. While the underlying analysis is quite rough (a careful study of this sort would involve a major research effort), the results are nevertheless interesting and are suggestive of the kind of study that is needed. The major conclusions regarding the existing imbalance among states, as shown in Table 3 of the Appendix, are as follows:

1. Twenty-one out of 51 states have an excess of need over capacity. The size of the deficiency relative to expenditure needs is largest, ranging from 40 to 70 percent (after allowing for Federal transfers), in the Southern low-income states. The size of the gap in other deficiency states is much less. Deficiencies are explained primarily by below-average capacities, but above-average needs also contribute to the result.

2. Twenty-nine states, including the high-income states, show an excess of capacity over need. The level of excess relative to

[8]Many of the difficult problems in this area have been attacked by Dr. Selma J. Mushkin, as Director of the State and Local Finances Project. She and her colleagues have examined in detail the more important state and local activities in an effort to project future expenditures. This work was published by the Council of State Governments in 1965 and 1966 as Research Memoranda 374-5, 379-382, 384, 389-90. No attempt was made, however, to compute a composite index of fiscal position based on these studies.

expenditure needs runs up to 48 percent, but on the whole these ratios are less extreme than for deficiency states. By our measure, the occurrence of excess is primarily due to above-average capacity.

3. If we exclude the dozen or so lowest income states, the size of the gap (positive or negative) is mostly modest relative to needs. Outside this group, the gap (positive or negative) exceeds 20 percent of expenditure needs in only four states.

While this result may be biased by inadequate accounting for need differentials, it nevertheless suggests that the problem of imbalance (with the exception of the low-income Southern states) is not primarily an interstate problem.

The results obtained from the application of various transfer plans are shown in Table 2, parts (a) and (b). Nine distribution patterns are compared, and they differ substantially in their performance. Our measure of performance in part (a), as noted before, is the percent of the fiscal gaps (i.e. excess of need over capacity) which are removed by the various plans. The Table also shows, in part (b), the percent of the program cost going to close these gaps rather than as payments to states with excess capacity. The results under each program are computed on a base which excludes present Federal transfer programs (columns 1 to 3) and on a base which includes such transfers (columns 4 to 6). The results indicate that:

4. At any given budget level, distribution by potential welfare recipients consistently did the best. A plan based on a combination of welfare recipients and school-age population was the next most efficient. A per capita distribution plan or the Administration Program did less well, while the Javits plan fell in between the Administration and welfare plans.

At the $5 billion program level, for instance, (including federal transfers in the base) we find that the plan based on potential welfare recipients closes 50.3 percent of the gaps while the Administration plan closes 41.5 percent and the per capita plan closes 42.6 percent. The Javits plan, at 44.2 percent, falls in between. Stated differently, under the potential welfare recipient based plan, 65.4 percent of payments, or $3.3 billion, goes into gap closing as against 52.4 percent, or $2.6 billion,

TABLE 2

MEASURES OF PROGRAM EFFICIENCY

(a)

Percent of Deficiencies (Excess of Need Over Capacity) Removed*

Program	Without Federal Transfers			With Federal Transfers		
	$5 Billion Program	$10 Billion Program	$20 Billion Program	$5 Billion Program	$10 Billion Program	$20 Billion Program
Revenue Sharing Per Capita Plan	38.6	59.4	77.5	42.6	63.6	79.9
Revenue Sharing Administration Plan	37.7	58.1	75.9	41.5	62.2	78.1
Revenue Sharing Javits Plan	41.2	62.1	79.3	44.2	64.9	80.0
Welfare Assistance Proportional to Potential Recipients Plan	47.1	69.6	85.6	50.3	71.6	84.5
Welfare Assistance Proportional to Own Welfare Expenditures Plan	31.6	49.8	65.7	35.2	54.1	67.7
School Assistance Proportional to School- Age Population Plan	39.6	60.6	78.7	43.6	64.8	81.1
School Assistance Proportional to Own School Expenditures Plan	34.2	53.5	70.9	38.2	58.0	73.6
Negative Income Tax Plan	4.4	8.8	13.8	5.7	9.4	13.9
Combination Weighted Welfare and School Assistance Plan	41.6	63.2	81.4	45.3	66.9	83.4

*For explanation see Appendix.

TABLE 2 CONTINUED

(b)

Percent of Program Funds Used to Remove Deficiencies

Program	Without Federal Transfers			With Federal Transfers		
	$5 Billion Program	$10 Billion Program	$20 Billion Program	$5 Billion Program	$10 Billion Program	$20 Billion Program
Revenue Sharing Per Capita Plan	53.7	63.7	77.6	56.7	68.1	80.3
Revenue Sharing Administration Plan	52.4	62.3	76.0	55.3	66.6	78.5
Revenue Sharing Javits Plan	57.2	66.6	79.4	58.9	69.5	80.4
Welfare Assistance Proportional to Potential Recipients Plan	65.4	74.6	85.8	67.0	76.6	84.9
Welfare Assistance Proportional to Own Welfare Expenditures Plan	43.9	53.4	65.8	46.9	57.9	68.0
School Assistance Proportional to School-Age Population Plan	55.1	65.0	78.8	58.1	69.4	81.5
School Assistance Proportional to Own School Expenditures Plan	47.1	57.3	71.0	50.9	62.1	73.9
Negative Income Tax Plan	6.1	9.4	13.8	7.6	10.1	14.0
Combination Weighted Welfare and School Assistance Plan	57.8	67.7	81.6	60.3	71.6	83.8

under the Administration plan. The corresponding amounts of slippage are $1.7 and $2.4 billion.[9]

5. The relative efficiency of the various plans narrows as the budget increases, with the absolute differences in efficiency showing little change.

6. The results are essentially the same, whether present Federal transfers are or are not included in the base.

In all, it appears that the various distribution patterns differ significantly in their efficiency and that distribution by welfare and school population is to be preferred. This is an interesting finding because (1) such distributions also tend to be in line with meeting intrastate differentials and (2) welfare and school needs carry high national priority.

Intrastate Differentials

The next step in a careful analysis of the problem would be to apply similar techniques of measuring fiscal capacity and need to subregions within states. Such an analysis may be expected to show a higher differential than is yielded by comparison among states. The situation will be influenced substantially by the incidence of poverty with its bearing on both the capacity and the need side of the fiscal equation. Without going into detail, the following facts — some of which are rather contrary to the conventional assumptions — may be worth noting:

1. The poverty problem is by no means exclusively an urban problem. About 50 percent of the poor are outside metropolitan areas. Only 26 percent are in metropolitan areas of over one million; and only 17 percent are in the central cities of such areas. It is thus quite misleading to think of the large eastern cities as reflecting the poverty problem.[10]

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[9] These are significant differences but the differential may well be understated aue to our rather crude method of evaluation. Ideally one would want to weigh each dollar in relation to the relative size of the gap closed, and to weigh dollars given excess of the gap in relations to the degree of excess. Our cruder measure gives equal weights to gap-closing dollars and zero weights to all dollars which do not go towards closing gaps. We do not mean to suggest that money not used for closing gaps is entirely wasted.

[10] See *Trends in Social and Economic Conditions in Metropolitan Areas,* Special States, Series p-28, No. 27, February 7, 1969, U. S. Department of Commerce, Bureau of the Census, p. 53.

2. Within metropolitan areas the incidence of poverty is by no means only a core city phenomenon. About 60 percent of the poor are located in central cities, while 40 percent are located in the suburban rings.[11] However, core city costs are higher, so that these unadjusted data tend to understate the relative magnitude of the core city problem.

3. The incidence of nonurban poverty is typically in low-income states, while that of urban poverty is typically in high-income states.

4. The metropolitan areas which suffer most acute fiscal distress are not only in relatively high income states but are also characterized by relatively high average incomes compared to other SMSA's. Thus, out of 216 SMSA's (1967 data) only 34 had per capita income above $3,400. Yet all but two of the twelve largest SMSA's belonged to this group, including (with the exception of Baltimore) all the large eastern seaboard cities.[12]

5. With the exception of New York the tax effort of these high-income SMSA's is not above the average for all SMSA's.[13]

The conclusion to be drawn from these facts is that revenue sharing modified by an income-type capacity variable would do little to solve the problem. Not even income equalizing distribution to SMSA's would serve the purpose. Fiscal differentials in these instances primarily result from the need rather than the capacity side. The only major exception of association of need and generally low capacity is in the low-income states. This is recognized to some extent in the Javits plan, where 15 percent of the total disbursement is allotted to low-income states. This minor part of the plan may well be its most useful component.

As to the other part of the problem — poverty in the SMSA's — the question arises whether, given the relatively high income levels of these SMSA's, the residents should not be called upon to put their "own" house in order and to take care of their "own" problems.

[11]*Ibid.*

[12]See *State and Local Finances, Significant Features, 1967 to 1970,* ACIR, Washington, November 1969, Table 2, pp. 13-20.

[13]*Ibid.*

This would require governmental units corresponding to SMSA's. But suppose that such units could be set up. Even then, this would not be the proper solution. To be sure, it is altogether proper to ask the suburbanites to help defray the cost of city services which they consume. But it does not follow that they should be called upon to pay for the welfare and social-service costs which arise from the concentration of low-income families in the city core. This responsibility should be carried by those who are more fortunate regardless of where they live. This being the case, the proper solution is the assumption of such costs on a nationwide basis, financed by progressive income taxation.

If per capita income in Westchester is high, Westchester residents should contribute more to the national finance of such services than the residents of Harlem; but so should wealthy residents of Arizona or Honolulu. The fact that Westchester is close to New York City, we repeat, is good reason for calling upon Westchester residents to contribute to commuter and other city facilities which they enjoy, but it should not be a reason for paying a disproportionate share of the city's welfare costs. These costs are a "spill-in" which result from national problems and that is where the cost should lie.

The question remains how national financing of such costs is to be accomplished. One way of doing so is to implement a fiscal system (a grant system, call it revenue sharing if you wish) where the distribution is from the Federal government to localities in line with their share in such national needs.

This, however, would require a complicated system of grants much more complex than is implied in a present expenditure-based pass-through provision, as provided for in the Administration plan. It would be revenue sharing in name only. Instead, the objective could be met more effectively and simply by Federal assumption of responsibility for the financing of the welfare system, initially at its present level and hopefully by way of an expanded income mainte-nance plan later on.

Beyond this, at least partial Federal finance of minimum levels of primary and secondary education is a desirable objective. These also are functions which in a highly mobile society have come to be of fundamental national importance and thus justify Federal financing. Taking the form of a minimum per student grant (with allowance for cost differentials), such a plan need interfere in no way with local responsibility for educational policy except, we would hope, for the

basic requirement of school integration. Given such a transfer of responsibility for welfare and at least part of primary and secondary education, the states and cities would then be in a position to take care of their remaining needs, out of their own fiscal resources and in line with their own preferences.

V. Conclusions

In closing, let us summarize the conclusions to which this analysis leads:

1. The combination of large Federal surplus with generalized across-the-board state-local deficiencies does not now exist and is not likely to materialize in the foreseeable future.

2. Instead, the problem is one of scarce Federal funds, matched by a highly complex pattern of deficiency at the state and local level.

3. Deficiency areas fall into two major parts:

a. the low-income states in which relatively high general needs are combined with low capacity, and

b. urban areas within high-income states, areas which have relatively high incomes but even higher national needs.

4. Problem (a) may be met in part by general transfers or revenue sharing limited to low-income states, e.g., the 15 percent part of the Javits plan carried out on a larger scale.

5. Problem (b) cannot be met by leaving the responsibility with the residents of the particular SMSA's. Nor can it be met adequately by capacity-related or per-capita-based generalized forms of revenue sharing. Rather it calls for the Federal government to assume full financial responsibility for welfare, first at present levels and later on at a substantially increased scale of income maintenance.

6. If and when a more substantial surplus in the Federal budget develops, the Federal government should then assume partial financial responsibility for minimum performance levels in the primary and secondary schools.

7. The existing system of categorical grants should be consolidated, but the basic principle of matching, specification of project area, and setting of general performance standards should be maintained.

Given such adjustments, the fiscal ills at the state-local level will be relieved and limited Federal funds will be used in a more effective fashion than under generalized revenue sharing. While such sharing is better than Federal tax reduction, it does not at this stage constitute the best or even second best use of funds.

Appendix

The following explains the analysis which underlies the results of Table 2.

A.   State-Local Fiscal Needs, Capacities, and Gaps

Over the years, economists have become more and more adept at "explaining" (in terms of R^2) the variation of state and local per capita expenditures. Even if these regression models were "good" models (in a statistical sense), they would still lack the kind of information that is necessary for deciding how to distribute Federal funds most effectively.

Measuring Relative Needs

In understanding why, it will be useful to distinguish between the following concepts:
(1) observed per capita expenditure levels;
(2) output or service levels, measured in terms of performance units;
(3) inputs needed per levels of outputs, i.e., production functions;
(4) costs of inputs
(5) per capita expenditure needs to provide a given output or performance level.

It follows that for any state and public service, (5) is a function of (3) and (4). Also, it is evident that (1) may differ from (5), either because (3) and (4) differ or because the demand for public services (service levels demanded at various unit costs) differs.

A proper analysis of relative expenditure needs would involve two steps. Step I is to determine, for each type of service, the cost of various service levels for each state. Step II is to allocate expenditures for all states as a group among the various services and to allocate the sub-total for each service category among states so as to equalize

service levels. Expenditures thus distributed would reflect relative expenditure needs and add up to total expenditures.[1]

Assuming the total expenditure level to be given, the question is how it is to be allocated among categories? If we take existing allocations between highways, welfare, education etc., we implicitly use the system of weights as reflected in the prevailing pattern. This reflects not only state and local preferences but (via categorical grants) also Federal preferences and (via state grants) the imposition of state preferences on local budgets.

The actual procedure here followed is but a very first approximation to what should be done. Not only were the weights implicit in the existing (1960) expenditure distribution among categories accepted as given, but even a crude attempt was made to measure needs in two categories only.

Our measure of need is made up of three components: (1) a "welfare need" per welfare recipient; (2) a "school need" per student receiving school services; and (3) an "other need" per general population. The first need is computed by dividing (a) direct general expenditures for welfare by all state and local governments ($4.4 billion), by (b) the U.S. local school population (using persons under the age of 18 as a proxy). The third need is computed by dividing (a) total direct general expenditures by all state and local governments other than welfare and local schools ($32.3 billion), by (b) total U.S. population. Using these indices, we then compute total need for each state (including its local governments) by multiplying the "welfare need" by the state's welfare population, multiplying the "school need" by the state's school population, multiplying the "other need" by the state's total population, and then adding up these three components. This total is called the "relative expenditure need" and is given for each state under columns 1 and 4 of Table 3.

By construction, the total of these relative expenditure needs will equal the total of actual direct general expenditures by all state and local governments in 1960. This is why we refer to it as a "relative" measure. It is not meant to suggest in any way that absolute (1960) needs are at this same aggregate level.

A further caveat should be stated — we explicitly recognize that we have not here adequately disaggregated expenditures by cate-

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[1]Relative expenditure needs will differ with the expenditure levels because of changing preferences as well as non-constant returns to scale.

gories, nor provided an adequate measure of relative need in the education and welfare categories. To do a proper job would require a major research effort, while this paper is only meant to be a suggestive first approximation.

Measuring Relative Capacity

The other side of the fiscal coin is fiscal "capacity". The Advisory Commission on Intergovernmental Relations has done considerable work on this subject. We make use of their definition of capacity which refers to the tax revenue which would be raised under a "representative tax system".

In 1960, state and local governments raised $36.4 billion through taxes. The difference between this figure and actual direct expenditures of $51.9 billion was obtained through user charges, other nontax state sources[2], and Federal transfers (of $7.0 billion). We examine two slight variations of the ACIR model tax system.

First, the revenue raised by every state under the representative tax system is proportionately increased until the total is equated with total expenditures at $51.9 billion. The resulting distribution is called "relative revenue capacity — without Federal transfers" and is given for each state under column 2 of Table 3. An alternative distribution is obtained by proportionately increasing the representative taxes up to $44.9 billion (total expenditures less Federal transfers) and then adding actual Federal transfers to achieve a total of $51.9 billion. The resulting distribution is called "relative revenue capacity — with Federal transfers" and is given for each state in column 5 of Table 3.

Relative Gaps

The next step is to compare relative expenditure need with relative revenue capacity for each state. This is done by subtracting the latter from the former, so that a positive result indicates a relatively poor state. These "relative gaps" have been computed using both measures of relative revenue capacity and are given under columns 3 and 6 of Table 3.

The relative nature of the analysis thus far should be stressed. By

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[2]In a more intensive study, these sources should be included, substituting "revenue" for "taxable" capacity.

construction, the sum of the relative gaps for all states is zero. This is to say that there would be no aggregate gap in the state-local sector if this were so.

A mere reshuffling of existing state-local resources could close every fiscal gap. We do not mean to suggest that this represents the real world. Table 3 only shows that even without an aggregate U.S. gap, individual gaps will still occur because of the mismatch of needs and capacities.

B. *Evaluation of Federal Programs*

We thus come to the question of what policy measures may be taken to deal with this situation. One approach would be to impose taxes on surplus states and make transfers to deficiency states, holding the aggregate level of expenditures constant.

Raising the Gaps

Another approach, here followed, is to assume that aggregate needs are in fact greater than aggregate capacity at the state-local level and to assume that the Federal government provides the difference.[3] This presumably is the major problem and justification for revenue sharing and other Federal expenditure programs to deal with the state-local fiscal crisis. Three aggregate gaps are examined — $5, $10, and $20 billion. The relative expenditure needs are raised proportionately for each state, so as to increase the total from $51.9 to $56.9, $61.9, and $71.9 billion respectively. In each state, at each level, this new total is decreased by relative revenue capacity. The new distributions are called the distributions of "absolute gaps" for aggregate U.S. gaps of $5, $10, and $20 billion. These three distributions are the revenue capacity measures given in Table 4, for both the capacity measures excluding and including Federal transfers.

Measures of Effectiveness

The effectiveness of alternative Federal programs will here be measured in terms of the absolute gaps "closed" by the program. For

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[3] In so doing, we overlook where the Federal taxes come from. Basically, this should be allowed for: Revenue sharing involves regional redistribution. Note, however, that Federal taxes reduce the income of *individuals*, while revenue sharing aids treasuries.

purposes of comparison, it is most meaningful to set the program level at the level of the aggregate U.S. gap. Programs can be inefficient in two ways: (1) money may be given to a state with a negative gap (capacity greater than need); or (2) money may be given to a state with a positive gap in excess of the size of its gap (thereby washing the difference between the grant and the gap). The simplest measure of the efficiency of the program would be the percentage of positive gaps which are closed. This is the measure we have adopted.[4]

The examination of a particular program will clarify the analysis. In Table 5 a revenue sharing plan, in which grants are distributed in proportion to state population, is evaluated. The distribution of a \$5 billion program is given in column 1. Prior to the plan, Massachusetts, for example, has an absolute gap of \$104 million when the aggregate U.S. gap is \$5 billion (column 1, Table 4). Under a \$5 billion per capita revenue sharing plan of this type, Massachusetts would receive \$144 million (column 1, Table 5). Most of this would go towards closing the \$104 million gap, although \$40 million would be wasted. Thus, the "gap left open" is \$40 million (column 2, Table 5). We next add up the *positive* gaps left open for all states, which is equal to \$4,266 million (column 2, Table 5). This is then compared with the initial sum of the *positive* absolute gaps, which is \$6,952 million (column 1, Table 4). The percentage of the initial positive gaps which are still open is $61.4[(4,266/6,952) \cdot 100]$. Alternatively expressed, 38.6 percent of the positive gaps have been closed. This is the efficiency measure.

The analysis is repeated for each plan at all three levels of aggregate U.S. gaps, and using both capacity measures. The reason the efficiency of the plan increases at higher levels, even though the aggregate U.S. gap increases identically, is that there is less "waste" in grants to states with negative absolute gaps (i.e., revenue excess).

From Table 4, it can be seen that only two states do not need Federal aid at the \$20 billion level, while 15 do not need aid at the \$5 billion level (under the first capacity measure). A summary of the results for all of the programs evaluated is given in Table 2. The programs are described below.

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[4]We do not mean to suggest that money not used for closing gaps is entirely wasted, nor should all gap-closing dollars be weighed equally. Ideally one would want to weigh each dollar in relation to the relative size of the gap closed, and to weigh dollars given in excess of the gap in relation to the degree of excess. Our cruder measure gives equal weights to gap-closing dollars and zero weights to all dollars which do not go towards closing gaps.

C. *The Programs*

Eight programs which give money directly to state treasuries were evaluated. In addition, one program in which the benefit to states was indirect was considered.

(1) *Revenue Sharing — Per Capita Plan:* Grants are distributed in proportion to the state's population.

(2) *Revenue Sharing — Administration Plan:* Grants are distributed in proportion to an index computed by multiplying the state's population proportion by the ratio of the state's own tax effort to the average tax effort for all states. Tax effort as used here refers to taxes raised from own sources as a fraction of total personal income of the state's residents.

(3) *Revenue Sharing — Javits Plan:* Eighty-five percent of the grant is distributed as in the Nixon plan. The remaining 15 percent is distributed to states with below-average per capita income. This part of the grant is distributed to the qualifying states in proportion to the difference between the average per capita income and the state's per capita income.

(4) *Welfare Assistance — Proportional to Potential Recipients Plan:* Grants are distributed in proportion to the state's welfare population. For this purpose, a proxy is used — the number of families with incomes below $2,000 (in 1960).

(5) *Welfare Assistance — Proportional to Own Welfare Expenditures Plan:* Grants are distributed in proportion to the state's expenditures on welfare from its own sources. For obtaining the Federal and state-local components of welfare expenditures for each state, it was necessary to use 1967 data and assume the same pattern for 1960.

(6) *School Assistance — Proportional to School-Age Population Plan:* Grants are distributed in proportion to the state's school-age population. For this purpose, a proxy is used — the number of individuals below the age of eighteen.

(7) *School Assistance — Proportional to Own School Expenditures Plan:* Grants are distributed in proportion to the state's expenditures on primary and secondary education from its own sources. For obtaining the Federal and state-local components of education expenditures for each state, it was necessary to use 1967

data and assume the same pattern for 1960.

(8) *Negative Income Tax Plan:* No grants are distributed directly to state treasuries. The grants go to low-income individuals. It was roughly assumed that a $20 billion program would eliminate the need for own welfare expenditures, and that any program below $20 billion would eliminate a proportional fraction of own welfare expenditures.

The imputed grant to the state was this savings in own expenditures, thus excluding such parts of the negative income tax payments as accrue to individuals other than the welfare population. As can be seen in Table 4, under these crude assumptions, only a small fraction of each program goes into gap closing.

(9) *Combination — Weighted Welfare and School Assistance Plan:* Twenty-two percent of the grant is distributed as in the "Welfare Assistance — Proportional to Potential Recipients Plan"; 78 percent of the grant is distributed as in the "School Assistance — Proportional to School-Age Population Plan." These percentages represent the actual breakdown between the sum of total expenditures for welfare and for primary and secondary education.

As noted earlier, the "Welfare Assistance — Proportional to Potential Recipients Plan" is the most efficient at every program level under either measure of revenue capacity (excluding or including Federal transfers). As the size of the programs increases, the effectiveness of the programs converges relatively; however, the absolute percentage difference between any two programs remains approximately constant. This is an important observation since the aggregate gap in the state-local sector is likely to be in the $5-$10 billion range in 1975 (see Table 1).

It is therefore particularly important which program is used to distribute Federal funds. This can be seen by comparing the Administration's revenue sharing plan with the welfare assistance plan based on potential recipients. At the $20 billion program level, the Administration plan is 89 percent [(75.9/85.6)·100] as effective as the welfare plan; at the $10 billion program level, it is 83 percent as effective; and at the $5 billion level, it is 80 percent as effective. The results are comparable for the other plans.

The poor showing of the negative income tax plan is explained in

part by the efficiency measurement here used. The objective of this approach is to close the poverty gap (while maintaining work incentives) and not the state-local fiscal gap. As a result of our assumptions, most of the benefits will go to poor individuals, so that the desirability of the plan cannot be judged merely on its impact on the fiscal gap.

D. The Data

The raw data were obtained from the following sources:

(1) *Population Per State:* U.S. Census Bureau, *1960 Census of Population: U.S. Summary,* Table 55.

(2) *Percent of State Population Under 18 Years Old: Ibid.,* Table 55.

(3) *Number of Families by State: Ibid.,* Table 137.

(4) *Percent of Families with Incomes Under $1,000: Ibid.,* Table 137.

(5) *Percent of Families with Incomes Between $1,000 and $1,999: Ibid.,* Table 137.

(6) *Relative Revenue Capacity by State (unadjusted):* Advisory Commission on Intergovernmental Relations, *Measures of State and Local Fiscal Capacity and Tax Effort* (October, 1962), Table 13.

(7) *Actual State and Local Tax Collections by State: Ibid.,* Table 10.

(8) *Actual Taxes as a Percent of Personal Income by State: Ibid.,* Table 24.

(9) *Total Direct General Expenditures by State:* U.S. Census Bureau, *Governmental Finances in 1960,* Table 16.

(10) *Direct General Expenditures for Welfare by State: Ibid.,* Table 18.

(11) *Direct General Expenditures for Local Schools by State: Ibid.,* Table 18.

(12) *Percent of Local School Expenditures Supported by Federal Aid, by State:* Advisory Commission on Intergovernmental Relations, *State and Local Finances: Significant Features, 1967-1970,* Table 14.

(13) *Percent of Welfare Expenditures Supported by Federal Aid, by State: Ibid.,* Table 16.

(14) *Federal Transfers to State-Local Governments, by States:* U.S. Census Bureau, *Governmental Finances in 1960,* Table 20.

TABLE 3

RELATIVE NEEDS, CAPACITIES, AND GAPS BY STATES, 1960
(MILLIONS OF DOLLARS)

STATES	Without Federal Transfers				With Federal Transfers			
	Rel. Expend. Need	Rel. Rev. Cpcty.	Rel. Gap	Rel. Gap % Of Rel. Exp. Needs	Rel. Expend. Need	Rel. Rev. Cpcty.	Rel. Gap	Rel. Gap % Of Rel. Exp. Needs
Alabama	1050.	624.	427.	68.	1050.	694.	357.	51.
Alaska	65.	46.	19.	42.	65.	74.	-10.	-13.
Arizona	387.	378.	9.	2.	387.	392.	-5.	-1.
Arkansas	589.	355.	234.	66.	589.	397.	193.	49.
California	4358.	5749.	-1391.	-24.	4358.	5702.	-1344.	-24.
Colorado	501.	579.	-79.	-14.	501.	597.	-96.	-16.
Connecticut	687.	820.	-134.	-16.	687.	776.	-89.	-12.
Delaware	127.	146.	-19.	-13.	127.	141.	-15.	-10.
Dist. of Col.	202.	277.	-75.	-27.	202.	302.	-100.	-33.
Florida	1447.	1452.	-6.	-0.	1447.	1442.	5.	0.
Georgia	1232.	783.	449.	57.	1232.	846.	386.	46.
Hawaii	180.	140.	40.	29.	180.	165.	15.	9.
Idaho	198.	208.	-11.	-5.	198.	220.	-22.	-10.
Illinois	2802.	3386.	-584.	-17.	2802.	3290.	-487.	-15.
Indiana	1347.	1371.	-25.	-2.	1347.	1326.	21.	2.
Iowa	811.	909.	-98.	-11.	811.	911.	-100.	-11.
Kansas	629.	709.	-80.	-11.	629.	709.	-80.	-11.
Kentucky	963.	649.	314.	48.	963.	700.	263.	38.
Louisiana	1030.	830.	-200.	24.	1030.	927.	103.	11.
Maine	278.	220.	58.	27.	278.	233.	45.	19.
Maryland	877.	833.	44.	5.	877.	801.	76.	9.
Massachusetts	1396.	1427.	-31.	-2.	1396.	1400.	-4.	-0.
Michigan	2246.	2249.	-3.	-0.	2246.	2169.	77.	4.
Minnesota	998.	1022.	-23.	-2.	998.	1028.	-30.	-3.
Mississippi	747.	357.	390.	109.	747.	411.	336.	82.
Missouri	1268.	1238.	29.	2.	1268.	1271.	-3.	-0.
Montana	197.	253.	-55.	-22.	197.	271.	-74.	-27.
Nebraska	412.	487.	-74.	-15.	412.	475.	-63.	-13.
Nevada	79.	121.	-43.	-35.	79.	126.	-48.	-38.
New Hampshire	168.	171.	-3.	-2.	168.	179.	-11.	-6.
New Jersey	1644.	1849.	-205.	-11.	1644.	1716.	-72.	-4.
New Mexico	293.	283.	10.	4.	293.	317.	-24.	-8.
New York	4533.	5082.	-549.	-11.	4533.	4891.	-358.	-7.
North Carolina	1434.	946.	488.	52.	1434.	974.	461.	47.
North Dakota	192.	198.	-6.	-3.	192.	220.	-27.	-12.
Ohio	2749.	2884.	-134.	-5.	2749.	2810.	-60.	-2.
Oklahoma	702.	629.	73.	12.	702.	676.	26.	4.
Oregon	502.	525.	-23.	-4.	502.	568.	-66.	-12.
Pennsylvania	3146.	2982.	164.	5.	3146.	2885.	261.	9.
Rhode Island	237.	215.	21.	10.	237.	218.	19.	8.
South Carolina	770.	415.	355.	85.	770.	450.	320.	71.
South Dakota	211.	211.	-1.	-0.	211.	226.	-16.	-7.
Tennessee	1122.	735.	387.	53.	1122.	789.	333.	42.
Texas	2907.	3339.	-431.	-13.	2907.	3278.	-370.	-11.
Utah	264.	263.	1.	0.	264.	291.	-28.	-10.
Vermont	112.	96.	17.	17.	112.	109.	3.	3.
Virginia	1184.	927.	257.	28.	1184.	932.	253.	27.
Washington	803.	846.	-43.	-5.	803.	862.	-59.	-7.
West Virginia	577.	397.	180.	45.	577.	428.	149.	35.
Wisconsin	1129.	1110.	19.	2.	1129.	1081.	49.	4.
Wyoming	95.	154.	-59.	-38.	95.	183.	-88.	-48.
TOTALS	51876.	51875.	00.	484.	51876.	51875.	00.	199.
POSITIVE TOTALS	51876.	51875.	4187.	794.	51876.	51875.	3749.	571.

TABLE 3 (CONTINUED)

RELATIVE NEEDS, CAPACITIES, AND GAPS BY STATES, 1960
(MILLIONS OF DOLLARS)

STATES	Per Capita Expenditure Need: % Of U.S. Average	Per Capita Revenue Capacity: % Of U.S. Average	School Pop. % Of U.S. Average Per Capita	Welfare Pop. % Of U.S. Average Per Capita
Alabama	111.	66.	110.	196.
Alaska	99.	70.	110.	57.
Arizona	103.	100.	111.	94.
Arkansas	114.	69.	104.	251.
California	96.	126.	97.	62.
Colorado	99.	114.	103.	73.
Connecticut	94.	112.	95.	43.
Delaware	98.	113.	102.	71.
Dist. of Col.	91.	125.	80.	65.
Florida	101.	101.	95.	129.
Georgia	108.	69.	109.	165.
Hawaii	98.	76.	111.	44.
Idaho	102.	108.	112.	87.
Illinois	96.	116.	95.	70.
Indiana	100.	102.	104.	83.
Iowa	102.	114.	100.	119.
Kansas	100.	113.	99.	103.
Kentucky	110.	74.	105.	197.
Louisana	109.	88.	113.	166.
Maine	99.	78.	100.	89.
Maryland	98.	93.	102.	66.
Massachusetts	94.	96.	93.	51.
Michigan	99.	99.	106.	72.
Minnesota	101.	103.	105.	96.
Mississippi	119.	57.	116.	264.
Missouri	101.	99.	94.	137.
Montana	101.	129.	108.	85.
Nebraska	101.	119.	99.	116.
Nevada	95.	147.	97.	53.
New Hampshire	96.	98.	97.	61.
New Jersey	94.	105.	92.	52.
New Mexico	106.	103.	120.	107.
New York	93.	105.	89.	61.
North Carolina	109.	72.	109.	174.
North Dakota	105.	108.	111.	122.
Ohio	98.	103.	101.	73.
Oklahoma	104.	93.	98.	158.
Oregon	98.	103.	100.	78.
Pennsylvania	96.	91.	94.	74.
Rhode Island	95.	87.	91.	74.
South Carolina	112.	60.	116.	181.
South Dakota	107.	107.	107.	156.
Tennessee	109.	71.	103.	194.
Texas	105.	120.	106.	137.
Utah	102.	102.	120.	59.
Vermont	100.	85.	102.	88.
Virginia	103.	81.	103.	127.
Washington	97.	103.	100.	67.
West Virginia	107.	74.	106.	166.
Wisconsin	99.	97.	103.	76.
Wyoming	100.	161.	108.	69.
TOTALS	—	—	—	—
POSITIVE TOTALS[1]	—	—	—	—

TABLE 4

ABSOLUTE GAPS BY STATES, 1960, FOR AGGREGATE U.S. GAPS OF 5, 10, AND 20 BILLION DOLLARS
(MILLIONS OF DOLLARS)

STATES	Without Federal Transfers						With Federal Transfers					
	$5 Billion U.S. Gap		$10 Billion U.S. Gap		$20 Billion U.S. Gap		$5 Billion U.S. Gap		$10 Billion U.S. Gap		$20 Billion U.S. Gap	
	Abs. Gap	% U.S. Av. Gap	Abs. Gap	% U.S. Av. Gap	Abs. Gap	% U.S. Av. Gap	Abs. Gap	% U.S. Av. Gap	Abs. Gap	% U.S. Av. Gap	Abs. Gap	% U.S. Av. Gap
Alabama	528.	580.	629.	345.	832.	228.	458.	503.	559.	307.	762.	209.
Alaska	25.	404.	32.	252.	44.	175.	-3.	-52.	3.	24.	15.	61.
Arizona	46.	126.	83.	115.	158.	109.	32.	89.	69.	96.	144.	99.
Arkansas	291.	584.	348.	349.	461.	232.	250.	501.	306.	308.	420.	211.
California	-971.	-222.	-551.	-63.	289.	17.	-924.	-211.	-504.	-57.	336.	19.
Colorado	-30.	-62.	18.	18.	114.	59.	-48.	-97.	1.	1.	97.	50.
Connecticut	-68.	-96.	-2.	-1.	131.	46.	-23.	-33.	43.	30.	175.	62.
Delaware	-7.	-54.	6.	22.	30.	60.	-3.	-20.	10.	39.	34.	69.
Dist. of Col.	-56.	-262.	-36.	-85.	3.	3.	-81.	-378.	-61.	-143.	-22.	-26.
Florida	134.	97.	273.	99.	552.	100.	144.	105.	284.	103.	563.	102.
Georgia	568.	516.	686.	312.	924.	210.	505.	459.	624.	284.	861.	196.
Hawaii	58.	327.	75.	213.	110.	156.	32.	183.	50.	141.	84.	120.
Idaho	9.	46.	28.	74.	66.	88.	-3.	-17.	16.	43.	54.	73.
Illinois	-314.	-112.	-43.	-8.	497.	44.	-217.	-77.	53.	9.	593.	53.
Indiana	105.	81.	235.	90.	495.	95.	151.	116.	281.	108.	540.	104.
Iowa	-20.	-26.	58.	38.	214.	70.	-22.	-28.	56.	37.	213.	69.
Kansas	-19.	-31.	42.	34.	163.	67.	-19.	-32.	41.	34.	163.	67.
Kentucky	407.	480.	500.	295.	685.	202.	356.	420.	449.	265.	634.	187.
Louisiana	299.	329.	398.	219.	597.	164.	203.	223.	302.	166.	500.	138.
Maine	85.	316.	112.	207.	166.	153.	72.	267.	99.	183.	153.	141.
Maryland	128.	148.	213.	123.	382.	110.	160.	186.	245.	142.	414.	120.
Massachusetts	104.	72.	238.	83.	507.	88.	130.	91.	265.	92.	534.	93.

Michigan	213.	98.	430.	99.	863.	99.	293.	134.	509.	117.	942.	108.
Minnesota	73.	76.	169.	89.	361.	95.	67.	70.	163.	86.	355.	93.
Mississippi	462.	761.	534.	440.	678.	279.	408.	672.	480.	395.	624.	257.
Missouri	152.	126.	274.	114.	518.	108.	119.	99.	241.	100.	486.	101.
Montana	-36.	-193.	-17.	-46.	21.	27.	-55.	-293.	-36.	-96.	2.	3.
Nebraska	-34.	-87.	5.	7.	85.	54.	-23.	-58.	17.	21.	96.	61.
Nevada	-35.	-441.	-27.	-173.	-12.	-39.	-40.	-502.	-32.	-204.	-17.	-54.
New Hampshire	13.	77.	29.	87.	62.	91.	6.	33.	22.	64.	54.	80.
New Jersey	-47.	-28.	112.	33.	429.	63.	86.	51.	245.	72.	561.	83.
New Mexico	39.	146.	67.	126.	123.	116.	4.	16.	33.	61.	89.	84.
New York	-112.	-24.	325.	35.	1198.	64.	79.	17.	516.	55.	1390.	74.
North Carolina	627.	493.	765.	301.	1041.	205.	599.	472.	737.	290.	1014.	200.
North Dakota	12.	71.	31.	88.	68.	97.	-9.	-50.	10.	28.	47.	66.
Ohio	131.	48.	396.	73.	925.	85.	205.	76.	470.	87.	1000.	92.
Oklahoma	141.	217.	208.	160.	344.	132.	93.	144.	161.	124.	296.	114.
Oregon	25.	51.	73.	74.	170.	86.	-18.	-36.	31.	31.	128.	65.
Pennsylvania	467.	148.	770.	122.	1377.	109.	564.	179.	867.	137.	1473.	117.
Rhode Island	44.	184.	67.	140.	113.	118.	41.	173.	64.	134.	110.	115.
South Carolina	429.	646.	503.	379.	651.	245.	394.	593.	468.	352.	617.	232.
South Dakota	20.	104.	40.	105.	81.	106.	5.	25.	25.	66.	66.	86.
Tennessee	496.	498.	604.	304.	820.	206.	441.	444.	549.	276.	766.	192.
Texas	-151.	-57.	129.	24.	689.	65.	-90.	-34.	190.	36.	751.	70.
Utah	27.	107.	52.	105.	103.	103.	-2.	-10.	23.	46.	74.	74.
Vermont	28.	258.	38.	176.	60.	138.	14.	128.	25.	114.	46.	107.
Virginia	371.	336.	485.	219.	714.	161.	367.	332.	481.	217.	709.	160.
Washington	34.	43.	112.	70.	267.	84.	19.	24.	96.	60.	251.	79.
West Virginia	236.	455.	291.	281.	403.	194.	205.	395.	260.	251.	372.	179.
Wisconsin	128.	116.	237.	107.	454.	103.	157.	143.	266.	121.	484.	110.
Wyoming	-50.	-541.	-41.	-221.	-22.	-60.	-79.	-857.	-70.	-379.	-51.	-139.
TOTALS	5000.	—	10000.	—	20000.	—	5000.	—	10000.	—	20000.	—
POSITIVE TOTALS	6952.	—	10719.	—	20036.	—	6659.	—	10704.	—	20092.	—

TABLE 5

—— REVENUE SHARING —— PER CAPITA PLAN:
DISTRIBUTION AND EFFECTIVENESS OF GRANTS FOR PROGRAMS
AND AGGREGATE U. S. GAPS OF 5, 10, AND 20 BILLION DOLLARS
(FIGURES IN MILLIONS OF DOLLARS)

STATES	Without Other Federal Transfers						With Other Federal Transfers					
	$5 Billion U.S. Gap and Program Level		$10 Billion U.S. Gap and Program Level		$20 Billion U.S. Gap and Program Level		$5 Billion U.S. Gap and Program Level		$10 Billion U.S. Gap and Program Level		$20 Billion U.S. Gap and Program Level	
	Grant	Gap	Grant	Gap	Grant	Gap	Grant	Gap	Grant	Gap	Grant	Gap
Alabama	91.	437.	182.	447.	364.	468.	91.	367.	182.	377.	364.	397.
Alaska	6.	19.	13.	19.	25.	19.	6.	-10.	13.	-10.	25.	-10.
Arizona	36.	10.	73.	11.	145.	12.	36.	-4.	73.	-3.	145.	-1.
Arkansas	50.	241.	100.	248.	199.	262.	50.	200.	100.	207.	199.	221.
California	438.	-1409.	876.	-1427.	1753.	-1464.	438.	-1362.	876.	-1380.	1753.	-1417.
Colorado	49.	-79.	98.	-80.	196.	-81.	49.	-97.	98.	-97.	196.	-99.
Connecticut	71.	-138.	141.	-143.	283.	-152.	71.	-94.	141.	-98.	283.	-107.
Delaware	12.	-19.	25.	-19.	50.	-20.	12.	-15.	25.	-15.	50.	-16.
Dist. of Col.	21.	-77.	43.	-79.	85.	-83.	21.	-102.	43.	-104.	85.	-107.
Florida	138.	-5.	276.	-3.	552.	-0.	138.	6.	276.	8.	552.	10.
Georgia	110.	458.	220.	467.	440.	484.	110.	395.	220.	404.	440.	421.
Hawaii	18.	40.	35.	40.	71.	39.	18.	15.	35.	14.	71.	14.
Idaho	19.	-10.	37.	-10.	74.	-9.	19.	-22.	37.	-21.	74.	-20.
Illinois	281.	-595.	562.	-606.	1124.	-628.	281.	-498.	562.	-509.	1124.	-531.
Indiana	130.	-25.	260.	-25.	520.	-25.	130.	21.	260.	21.	520.	20.
Iowa	77.	-97.	154.	-96.	308.	-93.	77.	-99.	154.	-97.	308.	-95.
Kansas	61.	-80.	121.	-80.	243.	-80.	61.	-80.	121.	-80.	243.	-80.
Kentucky	85.	322.	169.	330.	339.	347.	85.	271.	169.	279.	339.	295.
Louisiana	91.	208.	182.	217.	363.	234.	91.	112.	182.	120.	363.	137.
Maine	27.	58.	54.	58.	108.	58.	27.	45.	54.	45.	108.	44.
Maryland	86.	42.	173.	40.	346.	36.	86.	74.	173.	72.	346.	68.

Massachusetts	144.	-40.	287.	-49.	574.	-67.	144.	-13.	287.	-22.	574.	-40.
Michigan	218.	-5.	436.	-6.	873.	-10.	218.	75.	436.	73.	873.	70.
Minnesota	95.	-22.	190.	-21.	381.	-19.	95.	-28.	190.	-27.	381.	-25.
Mississippi	61.	402.	121.	413.	243.	435.	61.	348.	121.	359.	243.	381.
Missouri	120.	31.	241.	33.	482.	36.	120.	-1.	241.	0.	482.	4.
Montana	19.	-55.	38.	-55.	75.	-55.	19.	-74.	38.	-74.	75.	-73.
Nebraska	39.	-74.	79.	-73.	157.	-73.	39.	-62.	79.	-62.	157.	-61.
Nevada	8.	-43.	16.	-43.	32.	-44.	8.	-48.	16.	-48.	32.	-49.
New Hampshire	17.	-4.	34.	-5.	68.	-6.	17.	-11.	34.	-12.	68.	-13.
New Jersey	169.	-216.	338.	-227.	677.	-248.	169.	-83.	338.	-94.	677.	-115.
New Mexico	27.	12.	53.	14.	106.	17.	27.	-22.	53.	-20.	106.	-17.
New York	468.	-580.	936.	-611.	1872.	-673.	468.	-389.	936.	-420.	1872.	-482.
North Carolina	127.	500.	254.	511.	508.	533.	127.	472.	254.	483.	508.	506.
North Dakota	18.	-5.	35.	-4.	71.	-2.	18.	-26.	35.	-25.	71.	-24.
Ohio	271.	-140.	541.	-146.	1083.	-157.	271.	-66.	541.	-72.	1083.	-83.
Oklahoma	65.	76.	130.	78.	260.	84.	65.	28.	130.	31.	260.	37.
Oregon	49.	-24.	99.	-25.	197.	-27.	49.	-67.	99.	-68.	197.	-70.
Pennsylvania	316.	152.	631.	139.	1262.	114.	316.	248.	631.	236.	1262.	211.
Rhode Island	24.	20.	48.	19.	96.	17.	24.	17.	48.	16.	96.	14.
South Carolina	66.	362.	133.	370.	266.	386.	66.	328.	133.	335.	266.	351.
South Dakota	19.	1.	38.	2.	76.	5.	19.	-14.	38.	-13.	76.	-10.
Tennessee	99.	396.	199.	405.	398.	422.	99.	342.	199.	350.	398.	368.
Texas	267.	-418.	534.	-405.	1068.	-379.	267.	-357.	534.	-344.	1068.	-318.
Utah	25.	2.	50.	2.	99.	3.	25.	-27.	50.	-27.	99.	-25.
Vermont	11.	17.	22.	17.	43.	17.	11.	3.	22.	3.	43.	3.
Virginia	111.	261.	221.	264.	442.	271.	111.	256.	221.	260.	442.	267.
Washington	80.	-45.	159.	-47.	318.	-52.	80.	-61.	159.	-63.	318.	-67.
West Virginia	52.	184.	104.	188.	207.	195.	52.	153.	104.	157.	207.	164.
Wisconsin	110.	18.	220.	16.	441.	14.	110.	47.	220.	46.	441.	43.
Wyoming	9.	-59.	18.	-59.	37.	-59.	9.	-88.	18.	-88.	37.	-88.
TOTALS	5000.	2.	10000.	2.	20000.	2.	5000.	1.	10000.	1.	20000.	1.
POSITIVE TOTALS	5000.	4266.	10000.	4347.	20000.	4508.	5000.	3822.	10000.	3896.	20000.	4047.
EFFICIENCY		38.6		59.4		77.5		42.6		63.6		79.9

DISCUSSION

GEORGE F. BREAK

Though Pechman's return visit to revenue sharing is a brief one, his comments do summarize clearly and succinctly the distinctive features of the plan, and he then goes on to discuss three important, but unresolved, questions concerning the specific nature of future federal aids to state and local governments. Like Musgrave and Polinsky, he is critical of the proposal to adopt a fractional credit against federal personal income tax liabilities for income taxes paid to either state or local governments. Since I am in general agreement with that position, I shall not discuss it further here.

Like Musgrave and Polinsky, too, Pechman emphasizes the importance of conditional federal grants, stating that "the adoption of revenue sharing should not be the occasion for reducing conditional grants."[1] If this means not reducing them in absolute amount, I am sure that there would be wide agreement with Pechman's position. If it means not reducing their future rate of growth, however, the matter is much more complex and controversial.

There is, I believe, a strong possibility that enactment of a revenue sharing plan by the present Congress would lower the future growth rate of categorical grants. It is over the terms of this trade-off that many critics and proponents of revenue sharing appear to disagree most fundamentally.

Since the proposition is well-established that matching, conditional grants are the preferred Federal policy instrument for dealing with state-local programs with significant benefit spillouts, my remarks here will concentrate on the financing of non-spillout, state-local programs. If there is a case for Federal aid for such governmental activities, for reasons to be discussed later, unconditional grants of one sort or another are the obvious first choice. The questions before us, then, concern the nature, and strength, of the case for federal aid for local-benefit public programs and, if there is such a case, the extent to which Heller-Pechman grants are capable of satisfying it.

The Case for Federal Aid for Local Programs

Musgrave and Polinsky begin their paper with a very helpful

[1]Pechman, p. 4.

summary of the principles of fiscal federalism and with a fiscal forecast which, at least at the very broad macro level, is a good deal more optimistic than many that we have seen in the past. This sets the stage for a critical analysis of revenue sharing which, I must confess, ended up by making me more favorable to the plan than I had previously been.

I quite agree with them that "the redistributive function of fiscal policy (i.e. progressive taxation and transfers) should be centralized at the Federal level,"[2] and "that concern with poverty should be given top priority."[3] My conclusion, however, is that we need both aid to poor people and aid to poor governments, that income maintenance programs are capable of achieving only the former goal, and that revenue sharing, in a form not very different from the original Heller-Pechman plan, is a simple, and reasonably effective, means of raising the level of public service consumption to acceptable standards for people who otherwise would not be able to achieve them.

The first point, which is a rather complex one, concerns the extent to which a national income-maintenance program may be expected to raise consumption levels of the poor not only for private goods and services, but for public ones as well. Musgrave and Polinsky note the direct impact on state and local budgets of the reduced welfare expenditures which Federal assumption of full responsibility for redistributive fiscal functions would permit. In addition, one might hope that substantial alleviation of poverty would permit considerable reductions in such state and local government programs as police and fire protection, public housing, and general government.

Even when realized, however, these economies are not likely to go very far toward eliminating those horizontal fiscal imbalances which Musgrave and Polinsky rightly stress in their paper. This is clearly indicated in their Table 2 where the efficiency measures for the Negative Income Tax Plan fall far below the corresponding measures for the other programs considered.

There is, however, a third way in which a national program of income maintenance could provide some help to poor governments, and it has to do with the interaction between Negative Income Tax (NIT) support standards and state-local tax burdens. Consider, for

[2]Musgrave and Polinsky, p. 2

[3]Musgrave and Polinsky, p. 7.

example, the following basic definition of needs standards for families of any given size:

(1) $N = BA + Y_m(1 - t_o)$, where

N = the basic needs standard for a family of given size,

BA = the basic allowance to be provided by the NIT plan for a family of that size,

Y_m = the minimum earning power of that family, given the non-market commitments of its members, and

t_o = the offsetting tax rate to which all family income, other than the basic allowance itself, is to be subject.

For a family of four with one able-bodied, but unskilled, worker, the appropriate entries in equation (1) might be:

N = \$3,600 a year
BA =   1,600 a year
Y_m =   3,000 a year
t_o =   0.33.

Impact of State and Local Taxes

Consider, now, the impact on these values of state and local taxes paid by the poor to finance public services for the poor. Retail sales or property taxes that are shifted forward to the consumer should increase the size of N, the minimum amount of money needed by a family of given size to buy an adequate market basket of private goods and services. Sales or property taxes, on the other hand, that are shifted back to factory owners should reduce the value of Y_m, the minimum amount that an unskilled worker can earn by working full time for a year. In either case, state-local taxes paid by the poor to finance public services to themselves should bring forth additional income-maintenance payments on the part of the Federal government, and to this extent it may be said that a national NIT program would help poor people buy government benefits for themselves.

Though this is true enough for the public services that the poor are already buying for themselves, there seems little hope that a NIT plan would give them much muscle at the margin. We may assume, I think, that NIT needs and basic allowance standards will be set, at least for some considerable time to come, at average national levels, rather than at amounts based on the specific price and wage rates prevailing in different localities and regions. This being the case, low-income families in any one area could buy additional public

services for themselves only at their own expense (in the form of higher state-local tax rates), at least until a sufficient number of other areas had behaved similarly so as to raise the national average NIT support levels.

Moreover, even if federal NIT payments were made sensitive to differential movements in local and regional prices and wage rates, achievement of acceptable public good standards might well be a difficult boot-strap operation for all poor families except those lucky enough to live in communities with average, or above-average, income levels. Much would depend on the standards set for minimum local public service, and maximum local tax rate, levels — that is, on the definition of "poor governments" adopted by the public.

Standards for Minimum Local Service

One definition, a relatively stringent one, would be any community unable to finance a minimum local public service offering without forcing some of its citizens below minimum private consumption standards. By this test, any community containing a significant number of poverty-line families would have little, or no, ability to afford additional local public goods, simply because most feasible financing plans would impose some burdens on poor households. If such communities provided only substandard public service levels, therefore, all poor residents would be entitled to an NIT increment equal to their share of the tax costs involved in raising local government expenditures by the required amounts. If these amounts were large, moreover, many nonpoor households might be forced into the same situation. A more liberal definition of a poor government, and one suggested by Musgrave and Polinsky themselves, would be any community unable to afford *average* public service levels at *average* tax rates.

Such a standard would distinguish sharply between poor people and poor governments, since under it, a government could be poor even though it contained no families with disposable incomes below the NIT private-needs standard. Clearly, a national NIT program would be an inefficient way of eliminating fiscal deficiencies of this sort, and one's attention is turned instead to some kind of unconditional grant program.

Ideal Grant Formulas

The ideal grant formula for this purpose would be one long

familiar from the education field:

(2) $G_i = MC_i - RC_i$, where

G_i = the grant paid to the i-th government, perhaps with the constraint that $G_i \geqslant 0$.

MC_i = the minimum cost of providing the minimum public goods standard in the i-th government, and

RC_i = the revenue capacity of the i-th government, perhaps defined as the yield in that jurisdiction of the ACIR's representative tax system.

Because of the great number and diversity of local governments in this country, however, such a program would be extremely difficult to set up and very costly to administer at the Federal level, even if the data needed to compute minimum costs and revenue capacities were readily available. Since they are not, revenue sharing, with the appropriate distribution formulas, becomes an attractive policy possibility.

Looked at solely as a means of helping poor governments, federal block grants would have three main characteristics:

(1) Aid would not be confined to poor states, since even the richest ones contain poor local governments.

(2) For states with above-average revenue capacities, pass-through requirements, if any, should be close to 100 percent since those state governments, in the absence of special needs for state programs, would not suffer from any general fiscal deficiency. Pass-through percentages would be lower for states with below average revenue capacities, and very likely they would be lower, the greater the gap between state's revenue capacity and the average for the nation.

(3) To maximize the proportion of block grant funds going to poor governments, both allocation and pass-through formulas should presumably be based directly on the relative numbers of low-income families, or relative amounts of federal-state-local income-maintenance expenditures, in the receiving jurisdictions. Calculations similar to those presented by Musgrave and Polinsky in their Table 2 could be used to compare the relative efficiencies of alternative rules.

Revenue sharing, however, should not be evaluated solely by its ability to assist poor state and local governments. Indeed, one of the

great attractions of the plan is its ability to contribute to the solution of a wide variety of state-local fiscal problems. While for each of these, there is a superior policy instrument, revenue sharing represents a second- or third-best solution in most cases.

A helpful analogy may be to consider a student trying to choose a college to attend when university A has the best man in the country in one of his fields of interest but is rather weak in most of the others, university B has the best man in another field but is weak in the others, and so on down to university G which, though lacking entirely a first-place man, does have the second- or third-best in all of the student's fields of interest. Under such circumstances the student might well decide to go to university G. Of course, if one of the other universities suddenly acquired several of the first-rank professors, the attractiveness of G would be considerably weakened. So it would be with revenue sharing as the Federal government adopted, and implemented effectively, more and more of the superior, fiscal-aid policy instruments.

How well it has done in this respect, and how well it is likely to do in the near future, is largely a matter of personal judgment. Like Pechman, I tend to feel that revenue sharing would be a useful addition to our federal fiscal system. As he put it when he first heard my student analogy: "There is no problem of choice at all. If the student wants a liberal education, university G wins hands down!"

The Problem of
Redistribution of
Federal and State Funds

STEVEN J. WEISS and ROBERT W. EISENMENGER

During the last 10 years "the crisis" in state and local finance has received an increasing amount of attention. Academic and political authorities point out that the expenditures of state and local governments are rising at an annual average rate of 13 percent while revenues have kept pace only through the widespread adoption of new taxes and higher rates on existing taxes. They also state that the Federal Government is a very efficient tax collector, that the existing federal tax structure has a mildly progressive impact and brings in increasing amounts of revenue each year, while the tax structure at the state and local level is substantially regressive and inelastic.

Most supporters of Federal action favor either block grants to the states and localities or Federal revenue sharing with the states with no strings attached. State governments, in turn, knowing the particular problems of their areas, would use the transferred funds for high priority needs. Advocates of such Federal programs believe they would strengthen the weakened position of state and local governments by providing funds for their most needed expenditures and, at the same time, partially displace regressive taxes.

Although we agree with most of these statements, we believe that the supporters of unconditional grants and/or revenue sharing are much too enthusiastic. We fear that most such programs as presently proposed would not solve the real crisis problems of state and local finance. The logic of our paper is presented in four separate steps.

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1) There is no *aggregate* state and local financial crisis in the United States. A majority of both state and local governments now have the fiscal capacity to meet their financial needs without drastically increasing the real burden of their taxes.

2) A minority of local governments do have serious financial problems. These problems are generally concentrated in central cities and in some low income suburban and rural areas. Moreover, despite large intergovernmental transfer payments, very little is now done by the states or the Federal Government to provide equalizing help for the communities that are under severe financial pressure.

Across the country, the amount of equalizing aid now distributed by states is generally ineffective in accomplishing its goals. In effect, the states do not appear to have the political will to solve the fiscal problems of their most hard-pressed local governments.

3) Thus, if each state were given complete authority to allocate shared Federal monies with its local governments, it is unlikely that state legislatures would transfer the money in a way which would substantially assist the governmental units in financial distress.

It also appears that many technical problems make it difficult for the Federal Government to allocate funds directly to needy units of local government.

As examples of what can happen when the Federal Government attempts to intervene, we find serious weaknesses in the present revenue sharing plans proposed by the Nixon Administration and the Advisory Commission on Intergovernmental Relations.

4) It is easy to be critical of the existing financial system and its many inequitable features. It is much more difficult to suggest workable solutions. We conclude, however, that a short-run solution would be to have the Federal Government provide several billion dollars of additional school aid under a distribution formula that would primarily benefit the schools which serve a low-income population across the country.

No Aggregate State and Local Financial Crisis

We have ample evidence that the financial burdens of most states and local governments have not been and will not become extremely onerous. The state and local tax effort of most of the poorest states in the nation either has increased very little or declined in recent years.

It might be expected, for example, that many of our lowest income states would find it increasingly difficult to raise the level of their government services because of their limited tax resources. However, the level of per capita income in the 13 poorest states in the United States rose by 76 percent between 1956-57 and 1967-68 while it was rising by 63 percent in the 13 wealthiest states.

At the same time these poorest states were able to maintain the relative level of their state-local expenditures even though their level of tax effort — state and local taxes as a percent of personal income — increased by only a median 6 percent as compared to a median 21 percent increase for the wealthiest states.

Thus, the more rapid income growth in the poorer states has permitted a convergence of state-local tax effort among the states. Relative tax effort declined in most of the lowest income states, although there are several notable exceptions, as Table I indicates.

The data for state and local governments in the aggregate also appear reassuring. In 1956-57 state and local government tax collections constituted 8.3 percent of personal income. By 1967-68 the share of state and local taxes had increased to 9.9 percent. This increase can largely be explained by the fact that citizens have supported continual expansion in the scope and quality of state and local government services.

Moreover, there was a 38 percent increase in real per capita income in the United States in this 11-year period. With such a phenomenal rise in real income most taxpayers could easily afford a higher level of government services.

Looking into the future, projections of state and local public finance in the aggregate suggest that the fiscal squeeze will not become significantly more pressing. The Tax Foundation's study of 1966, the Mushkin-Lupo study of 1967, and the CED study of 1968, all suggest that the gap in aggregate state and local financing is not nearly as great as many people have claimed.[1]

The fact is that the majority of local governments in the United States and many state governments as well face no serious financial

[1]Tax Foundation, Inc., *Fiscal Outlook for State and Local Government to 1975*, New York (December 1966), Selma J. Mushkin and Gabrielle C. Lupo, "Project '70: projecting the State-Local Sector," *Review of Economics and Statistics* (May 1967), and Lawrence R. Kegan and George P. Roniger, "The Outlook for State and Local Economic Finance, " *Fiscal Issues in the Future of Federalism*, Committee for Economic Development (May 1968).

obstacles. In fact, it is entirely possible that many affluent suburbs would be hard pressed to spend much more money without wasting resources. We conclude that the real crisis of state and local finance is the financial plight of only a minority of communities in the United States.

Importance of Intrastate Differences in Tax Burdens

Discussions of tax effort or tax burden differences usually involve interstate comparisons for which data are readily available. Less attention has been devoted to the study of variations within states. In the context of our present concern for identifying and channeling assistance to communities suffering the most severe financial strain, this latter question is crucial.

We have clear evidence that intrastate tax burden differentials can be very large, especially in states that rely heavily on local property taxes. An examination of the entire array of local tax rates in such states reveals that *intrastate* variations in total tax burdens — because of differences in the local property tax — may be so large as to overshadow comparisons of *interstate* differences in "average" total state-local tax bills. This result was demonstrated in a recent study by James W. Wightman of industrial tax burdens in the Northeast.[2] The Boston Fed's recent examination of school finance in the New England states[3] shows further evidence of wide intrastate differences in local tax burdens. In Maine, for example, the local school tax rate at the 90th percentile level is almost three times as great as the 10th percentile level of effort (see Table II). Such disparities in school district tax rates are largely the result of even greater differences in equalized valuation per pupil.

Statistical measures of these disparities in school finance are presented in Table II, along with correlation coefficients indicating — for the New England states — the strength of the direct relationship between school tax rates and the size of the local tax base. While school tax rate differentials are quite extreme, intrastate variation in

[2]James W. Wightman, *The Impact of State and Local Fiscal Policies on Redevelopment Areas in the Northeast,* Research Report No. 40, Federal Reserve Bank of Boston, March 1968. Analysis and discussion of the Wightman results appeared in a two-part article, "Tax Structure, Tax Competition, and Tax Burdens on Industry," in the *New England Business Review,* Federal Reserve Bank of Boston, January and February 1968.

[3]Steven J. Weiss, *Exsisting Dispariities in School Finance and Proposals for Reform,* Research Report No.46, Federal Reserve Bank of Boston, 1970.

TABLE I

TAX EFFORT PERFORMANCE
OF HIGHEST— AND LOWEST-INCOME STATES,*
1956—7 TO 1967—8

13 HIGHEST—INCOME STATES

	% CHANGE IN TAX EFFORT,** 1956—7 TO 1967—8	RANK AMONG THE 50 STATES IN TAX EFFORT**	
		1956—7	1967—8
Connecticut	17	43.5	44
New York	34	20.5	3
Alaska	204	50	48
Illinois	15	43.5	46
California	32	2	2
Nevada	21	22.5	13
New Jersey	29	47	37
Massachusetts	12	16.5	19.5
Delaware	77	49	30.5
Michigan	20	32.5	22.5
Maryland	32	42	27.5
Washington	18	26.5	19.5
Rhode Island	21	36	29

MEDIAN FOR GROUP: 21
U. S. MEDIAN: 17

13 LOWEST—INCOME STATES

	% CHANGE IN TAX EFFORT,** 1956—7 TO 1967—8	RANK AMONG THE 50 STATES IN TAX EFFORT**	
		1956—7	1967—8
Georgia	4	29.5	37
North Dakota	-3	1	7.5
Idaho	31	20	5
North Carolina	6	31	33.5
New Mexico	20	24.5	16.5
Kentucky	13	16.5	42
Louisiana	8	6	16.5
Tennessee	6	32.5	37
West Virginia	36	41	21
South Carolina	-2	26.5	43
Alabama	-7	10	37
Arkansas	2	29.5	37
Mississippi	-9	2	25

MEDIAN FOR GROUP 6

*Ranked by 1968 personal income per capita.
**Measured by total state and local taxes in proportion to personal income.

total property tax rates is even greater, as Charts 1 and 2 demonstrate for Massachusetts and New Hampshire.[4] Now the important question is — what types of communities face a financial crisis?

Identifying Key Problem Areas

Obviously the older central cities face severe financial problems. In his study of the ten largest U.S. cities, Feinberg found that assessed valuation in constant dollars actually declined in 7 out of the 10 over the decade 1950-60.[5] Faced with a property tax base that is rather stagnant at best, the typical older core city must nonetheless finance constantly rising levels of public services, including the central city services generally provided without compensation to residents of more affluent communities in the metropolitan ring. The situation in Boston provides a good example: an unusually small area at the heart of a large SMSA, the central city imposes an extremely high property tax rate, straining its tax base to finance a relatively high level of per capita government expenditures. The general picture that emerges from numerous studies of fiscal disparities within metropolitan areas is one of higher tax burdens in the core cities, relative to their suburbs, caused principally by burgeoning non-educational expenditures. A *widening* of central city-suburb differentials has been documented in several excellent case studies,[6] and in its review of data for the 37 largest SMSA's the ACIR concluded that, in the aggregate, metropolitan area fiscal disparities intensified between 1957 and 1965. Generalization is particularly hazardous in this area, but the ACIR extended the gloomy prospect by noting further that "time is definitely working against most central cities with respect to relative tax burdens."[7]

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[4] In New England, where local non-property taxes are virtually non-existent, property tax rates are a reasonable index of local fiscal effort. In other states, inter-local comparisons would have to be adjusted for non-property taxes, and possibly charges and fees as well.

[5] Mordecai S. Feinberg, "The Implications of Core-City Decline for the Fiscal Structure of the Core-City," *National Tax Journal,* Sept. 1964, pp. 213-31.

[6] See, for example, case studies by John Riew and Morris Beck, respectively, of Milwaukee and Northern New Jersey SMSA's, in ACIR, *Fiscal Balance in the American Federal System,* Vol. 2 (Washington 1967).

[7] *Ibid.,* p. 87. Houston, where annexation is facilitated by state law, appears to be a notable exception; see study by Wendell Bedichek in *Ibid.*

Chart 1

PERCENT DISTRIBUTION OF MASSACHUSETTS CITIES AND TOWNS
BY EQUALIZED PROPERTY TAX RATES, 1969

PERCENT

SCHOOL TAX RATE

TOTAL PROPERTY TAX RATE

| 0-4.99 | 5-9.99 | 10-14.99 | 15-19.99 | 20-24.99 | 25-29.99 | 30-34.99 | 35-39.99 | 40-44.99 | 45-49.99 | 50-54.99 | 55-59.99 | 60-64.99 | 65-69.99 | 70 and over |

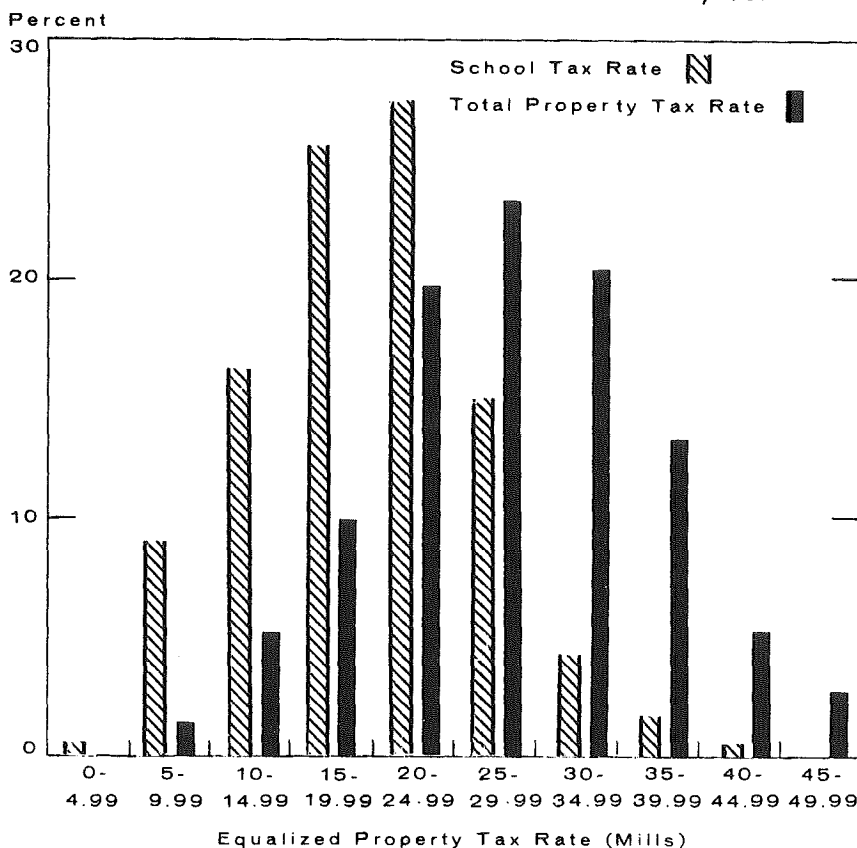Equalized Property Tax Rate (Mills)
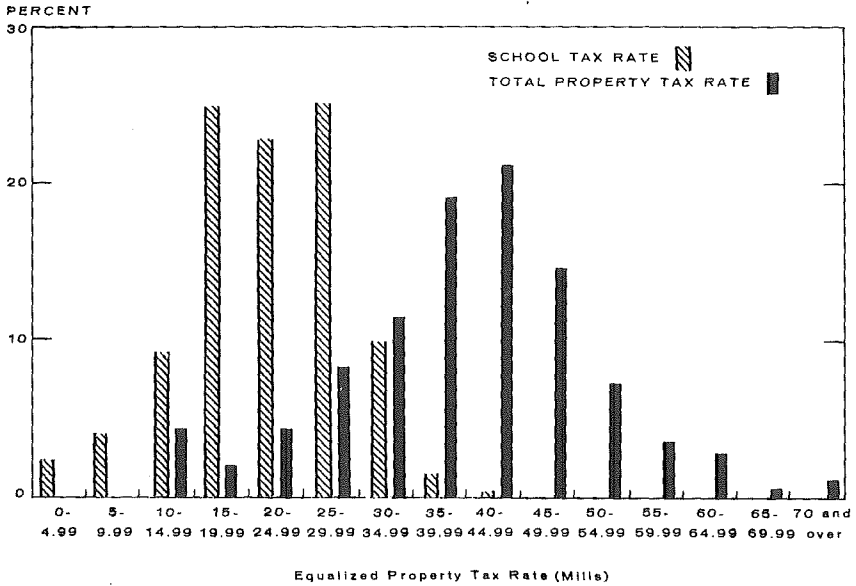
Metropolitan area studies of Buffalo, Chicago, Cleveland and Detroit have highlighted an emerging problem that had been relatively neglected in the earlier emphasis on city-suburb differentials, namely inter-suburban fiscal disparities that either presently or potentially overshadow the general core city-suburb contrasts. In particular, "the older suburban communities are taking on physical, social and economic characteristics similar to the central city's . . . Thus, the suburbs are neither uniformly affluent nor free of fiscal woes. In fact, disparities among suburban jurisdictions may be both greater in magnitude and intensifying as rapidly as the central city-outside central city differences."[8]

[8]*Ibid.,* p. 119. See case studies by Seymour Sacks (Buffalo), James M. Bonovetz, *et al* (Chicago), and Frederick Stocker (Cleveland) in *Ibid.,* and Karl D. Gregory, "Detroit: Crisis in the Central City," in CED, *Fiscal Issues . . .* , p. 39.

Chart 2

PERCENT DISTRIBUTION OF NEW HAMPSHIRE CITIES AND TOWNS BY EQUALIZED PROPERTY TAX RATES, 1967

Percent

School Tax Rate

Total Property Tax Rate

30

20

10

0

| 0- 4.99 | 5- 9.99 | 10- 14.99 | 15- 19.99 | 20- 24.99 | 25- 29.99 | 30- 34.99 | 35- 39.99 | 40- 44.99 | 45- 49.99 |

Equalized Property Tax Rate (Mills)

Apart from the difficulties of some increasingly urbanized older suburbs, quite a different sort of fiscal pressure affects some low-income, rapidly growing suburban communities, where expansion of basic service facilities can cause tax rates to leap sharply to high levels despite concurrent growth in the property tax base. Beyond the metropolitan fringes in areas quite far removed from fiscal problems associated with either urbanization or rapid suburban growth, examples can be found of towns where local tax rates are exceptionally high because — for one reason or another — the tax base has deteriorated.

TABLE II

MEASURES OF EXISTING DISPARITIES IN PUBLIC SCHOOL FINANCE
NEW ENGLAND STATES

	MAINE	MASS.	VERMONT	N.H.	R.I.	CONN.
SCHOOL TAX RATE (MILLS)						
10th Percentile Level	16.8	13.2	6.8	10.2	7.3	9.9
Median	28.9	22.4	12.3	18.8	11.8	14.0
90th Percentile Level	47.8	30.6	18.1	25.5	14.2	20.8
Coefficient of Variation	44	31	39	44	28	31
EQUALIZED VALUATION PER PUPIL: ($ THOUS.)						
10th Percentile Level	3.6	15.5	16.0	13.7	23.1	19.3
Median	7.8	22.3	25.9	22.6	28.9	29.5
90th Percentile Level	25.6	45.2	57.4	56.2	42.5	46.8
Coefficient of Variation	107	94	75	69	52	38
SIMPLE CORRELATION OF TAX RATE AND TAX BASE						
[Curvilinear form: $(1/r, V/p)$] *	.81	.82	.71	.88	.73	.75

Source: Steven J. Weiss, *op. cit.*, pp. 17, 21.

Note: The actual millage rates and valuation per pupil figures are not comparable across states since valuation practices are not uniform.

*Simple linear correlations yield coefficients ranging from -.56 (R.I.) to -.69 (N.H.)

Our basic point is that high local tax burdens can crop up in individual communities under a variety of different economic circumstances. There is much talk of a *general* crisis in state-local finance, supported by figures such as the electorates' record rejection last year of over 56 percent of total school bond issues.[9] However, in the context of rising income levels, real hardship in local tax burdens is certainly less common than such figures might suggest. Many different sorts of reasons can cause local resistance to tax increases. Taxpayers' *un*willingness to pay often reflects political or sociological factors rather than a reaction to actually high economic burdens, as illustrated by the case of Fremont, Ohio, a town where local property taxes are among the lowest in the nation and the

[9]The 56 percent figure is by dollar volume; *Wall Street Journal*, June 3, 1970, p. 1.

schools were closed because voters failed to approve a levy to provide operating funds.[10]

Ineffectiveness of Present State Equalizing Aid

The intrastate disparities documented above persist and individual communities continue under extreme fiscal strain, despite distributions of state aid funds to the localities. Substantial amelioration of the present inequities *could* be achieved if state governments would take greater financial responsibility for expensive programs that are clearly of more than merely local concern (e.g., welfare, education), and generally augment state equalizing aid.

However, the record of state action to relieve fiscal disparities among local governments is a very dismal one. With very few exceptions, states have done very little to equalize tax burdens and public service levels. This is true despite the fact that state aid to local governments has grown substantially in the last two decades and now constitutes, in the aggregate, about one-third of local government general revenues.[11] If state aid money were properly channeled, the volume of funds presently budgeted in most states could go a long way toward relieving the most severe fiscal disparities at the local level. How such relief could be accomplished is no mystery to public finance experts, but help is needed from political scientists, and probably sociologists as well, before general progress can be made. The effectiveness of many a good equalization plan has been seriously weakened or totally destroyed by practical political constraints.

For example, funds are "wasted" (with respect to an equalization objective) when political support for a program requires that *every* jurisdiction — even the richest — gets a piece of the pie; similarly, any proposal that explicitly requires some redistribution of locally raised funds is usually foredoomed in the state legislature.

[10]This case was documented by CBS News; see Transcript, "The Day They Had to Close the Schools, " CBS Reports, January 27, 1970.

[11]This includes federal aid channeled through the state capitols to local units; approximately one-fourth of local general revenues came from state aid from states' own sources. Actually, state aid has not increased very much faster than local governments' own revenues in the postwar years, but the absolute increase has been substantial. See ACIR, *State Aid To Local Government,* Washington, April 1969, pp. 3-4.

State School Aid

There is considerable state-to-state variation in the total impact, functional composition, and design of state programs of financial support for local governments. Generally the most important program category, however, is state support of public schools. For the United States as a whole, about 60 percent of all state aid goes to education, although for individual states this proportion varies from 20 percent (Massachusetts) to almost 100 percent (West Virginia and Texas).[12] State school aid merits special attention not only because it constitutes such a large proportion of total state aid, but also because it is widely considered to be a generally admirable example of equalization in practice. In fact, school aid is often the only aid program where the states make even any pretense of attempting to promote intrastate equalization. As the ACIR has noted, equalization programs ". . . are conspicuous by their absence in virtually all other fields in which States extend aid to local governments."[13] We are not very enthusiastic about "equalizing" school aid programs in practice, however.

Increasingly sophisticated methods of allocating school aid funds have been advocated through the years, in keeping with heightened awareness of existing problems and greater attention to equalization as a specific policy objective, but actual practice has seriously lagged behind theoretical advances.[14]

Most state school aid programs, in concept, imply the possibility of *negative* aid, *i.e.*, transfers of local funds *to the state* from at least the wealthiest school districts. Not surprisingly, however, since such explicit redistribution is usually politically unpalatable, programs as implemented are generally designed to eliminate that possibility either by adjusting parameters of the formula or by putting constraints on the outcomes.

Negative payments are actually effected in only one state (Utah),

[12]ACIR, *Fiscal Balance . . .* , Vol. 1, Table A-6, pp. 273-274.

[13]AICR, *State Aid to Local Government*, p. 7.

[14]For a brief discussion of the major types of state school aid programs, see Weiss, *op. cit.,* pp. 29-36; an excellent comprehensive treatment is available in John E. Coons, William H. Clune, III, and Stephen D. Sugarman, *Private Wealth and Public Education* (Cambridge; Harvard University Press, 1970), Chs. 1-5.

and then only to a minor extent.[15] Generally, whenever school aid formula results are constrained by ceilings or guaranteed minimum payments, etc., or when flat grants are included explicitly or implicitly in aid distributions, equalization effects are seriously diluted.

The Massachusetts basic program for support of current school expenditures provides a particularly discouraging example of how a conceptually excellent equalization program can be ruined in practice. The program is a variant of a "percentage equalization" plan, an allocation method enthusiastically recommended as a means of achieving strong equalizing effects while preserving local incentives.

The proponents of the plan demonstrated that, in "pure" form, their program would yield very significant equalizing effects, indicated by a correlation of −.97 between districts' projected aid per pupil and local ability to pay for schools (as measured by equalized valuation per pupil). They conceded that inclusion of several politically necessary constraints would reduce the correlation to −.47.[16] However, before the plan was implemented, additional "modifications" were tacked on, with very damaging results.

Data for 1967 indicate that the overall Massachusetts school aid program actually had a tendency to yield perverse results in practice — a positive relationship (although not a significant one) between local fiscal capacity and state aid per pupil.[17]

Among the New England states, Vermont appears presently to have the "best" school aid program. The state pays 35 percent of the state-local public school budget, and fully 93 percent of its school aid money is channeled through a basic program that is intended to be equalizing. Yet, partly because of under-funding, the actual results are not very impressive — the correlation between aid per pupil and local ability is just −.52 — and current expenditures per pupil range from $471 at the 10th percentile level to $689 at the 90th.[18]

[15] See the discussion in Coons, Clune and Sugarman, *op. cit.*, pp. 87-95 on "Utah: The Foundation Plan at its Inadequate Best."

[16] See Joel S. Weinberg, *State Aid to Education in Massachusetts* (New England School Development Council, 1962), p. 42

[17] For a discussion of the Massachusetts program see Weiss, *op. cit.*, pp. 36-42; also, Andre Daniere, *Cost Benefit Analysis of General Purpose State School-Aid Formulas in Massachusetts* (Massachusetts Advisory Council on Education, 1969).

[18] See Weiss, *op. cit.*, pp. 17, 37-8 and 41-3 for comments about Vermont school aid.

No Significant Equalization

The conclusion that school aid programs are not significantly equalizing is discouraging, especially so since they are widely regarded as paragons of equalizing virtue, at least relative to other state aid programs. Still more discouraging is the conclusion of several metropolitan area studies that state school aid formulas actually have the effect of exacerbating overall city-suburb disparities by supplying, on the average, relatively more assistance to suburban than to city districts.

These results are all the more perverse because educational needs per pupil are *greater* in large city school systems as a result of inner city concentrations of "culturally deprived" children. School aid formulas usually discriminate further against the cities because they neglect entirely or fail to compensate adequately for the cities' differential burdens of non-educational spending.[19] The moral of this rather protracted review of school aid in practice is clear: good intentions are not enough, and an aid program with an "equalization" label does *not* necessarily mean that significantly equalizing results are obtained in practice.

Only very rarely is intrastate equalization even contemplated in state aid allocations for non-school purposes. On the contrary, allocation methods may have perverse results, for example when certain shared taxes are returned according to geographic source of collection, or when aid funds are distributed according to property valuation. To date at least, the overall record of state aid appears to be one of equalization opportunity lost — or not even perceived.

In a study of the Cleveland SMSA, for example, Stocker noted that the three forms of state aid in Ohio "offer a potential vehicle for reducing interlocal disparities in expenditures or taxes. None appears, however, to have operated in such a way as to accomplish any significant equalization within the Cleveland metropolitan area or between the counties of the Cleveland SMSA and the balance of the state."[20]

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[19] It should be possible to adjust school aid formulas to account for these factors, but as yet there is no general agreement about how best to do so. It might be asking too much of a mere school aid formula to make these fine adjustments. Compensating state assistance through non-school aid programs would seem to be a more sensible approach, but again the record is not encouraging.

[20] ACIR, *Fiscal Balance* . . ., Vol. 2, p. 266.

Similarly, a comprehensive study by Riew of the system of state transfers in Wisconsin concluded "that the state-to-local transfers as a whole greatly aggravate city-suburb disparities as well as overall disparities among suburban municipalities of Milwaukee."[21]

The present picture of state transfers to local governments contains much gloomy evidence of "discrepancies between the states' discretion and local needs."[22] We can only hope that the states will realign their overall aid programs to focus more aid where local needs are greatest. Methods for achieving this goal are available, of course, if states have the will to act.[23]

Unless state governments mend their ways, ". . . there would seem to be little to recommend a program of increased Federal aid distributed through the state government . . . . [U]rban areas . . . may benefit less under a state distribution of Federal money than under a direct Federal-local arrangements."[24]

If the financial problems of some individual units of local government are so serious, and if the states will not provide a substantial amount of equalizing aid, it would seem obvious that some type of Federal action is needed. We agree. We also believe,

[21]John Riew, "Metropolitan Disparities and Fiscal Federalism," in J. Crecine (ed.), *Financing the Metropolis,* Vol. 4., Urban Affairs Annual Reviews, (Beverly Hills, Calif., Sage Publications, Inc., 1970), p. 153, citing his study in *Ibid.* Earlier studies had suggested that Wisconsin's combination system of aid programs and shared taxes struck a "fortuitous balance," with aid programs differentially benefiting suburban areas and the distribution of shared taxes causing a corrective distortion by favoring the cities. See Alan H. Smith, "State Payment to Local Governments in Wisconsin," in Joint Economic Committee, *Revenue Sharing and Its Alternatives,* Vol. I. (Washington, July 1967), pp. 320-30; and Harold M. Groves, "Innovation in Tax Sharing: The Wisconsin Experience," in *Ibid* , pp. 331-39. Groves notes that the combined result yielded a reduction of the range of millage rates within Milwaukee County from 22-39 mills (which would have prevailed in the absence of state transfers) to 20-35 mills. This isn't much of a reduction, but the transfer system was, after all, the product of political compromise (p. 336).

[22]Riew, *op. cit.,* p. 153.

[23]See, for example, ACIR, *State Aid to Local Government,* especially pp. 100-103; and *The States and Urban Problems,* A Staff Study for the Committee on State-Urban Relations of the National Governors' Conference, October 1967, pp. 160-183. An encouraging example of state action is provided by New Jersey, where a general government assistance program was enacted in 1968, specifically designed to emphasize aid to 8 "priority cities" facing extraordinary fiscal problems.

[24]This is the conclusion of Roy W. Bahl in his study of fiscal disparities in the Louisville SMSA, in CED, *Fiscal Issues . . . ,* p. 118.

however, that the typical federal grant-in-aid program and most variations of federal revenue sharing provide poor solutions.

Present Federal Aid Distribution

As is well known, most Federal aid is distributed through conditional grants and is designed to stimulate specific types of expenditure. Only a minority of Federal grant programs do anything to alleviate the financial problems of impoverished units of local government, and even this minimal equalization is more the result of the choice of functions eligible for Federal assistance rather than a deliberate attempt to increase the revenues of financially troubled communities.

Moreover, the typical Federal grant requires matching funds, and, as a result, many of the poorest communities cannot or will not participate. The aggregate statistics for Federal grants-in-aid support these pessimistic conclusions.

Although the pattern of Federal aid distribution across states has become relatively more equalizing over the years, particularly in certain program areas,[25] when Federal aid per capita for 1968 is correlated with personal income per capita, the result is a *positive* correlation of .20. Unfortunately there is little data available regarding the intrastate distribution of Federal funds. We do have one piece of evidence, however, involving the distribution of Federal education aid among school districts in the New England states. The levels of Federal aid per pupil vary widely from state to state, but the figures show even greater variation within states, and, with one minor exception, there is no significant relationship between Federal aid per pupil and school district wealth as measured by equalized valuation per pupil.[26]

We believe that this result is indicative and that it is usually the case that the active, imaginative and wealthy states and communities are successful in capturing the largest shares of most Federal grants.

[25] I. M. Labovitz, "Federal Assistance to State & Local Governments," *Federal-State-Local Fiscal Relationships* (Princeton: Tax Institute of America, 1968), pp. 31-33.

[26] Weiss, *op. cit.*, pp. 66-67. A simple correlation between aid per pupil and valuation per pupil of - .25 for Maine is significant at the 1 percent level; for the other states, correlations range from - .05 to - .12 and are not even nearly significant at the 10 percent level.

Conceivably Congress could attempt to write a bill requiring that states distribute shared Federal revenue or unconditional grants on an equalizing basis directly to local government units. However, a bill with this simple objective would be difficult to draft and even more difficult to administer.

The Administration's Revenue Sharing Plan

What can happen when the Federal Government decides to legislate in this field is illustrated by the attempt of the Nixon Administration to write a Federal revenue sharing bill which specifies how pass-through funds shall be allocated to local government units. The bill is very simple. The proportion of the Federal allocation which must be passed-through to local units is calculated by dividing the combined total general revenues from own sources of general-purpose local governments by the total state and local revenue from own sources. Those states that assign greater financial responsibilities to local governments are required to distribute proportionally more of their Federal allocation to local units.

Thus, Massachusetts would be required to pass through 52 percent of its allocation while Delaware would be required to transfer only 15 percent of its funds. Up to this point, we believe that the proposed arrangement is reasonable and fair.

Next, however, the Administration's proposal requires that each local unit of government receive transferred funds in proportion to its share of total general revenue collections. In other words, locally-shared revenues are to be distributed according to the existing pattern of locally-raised revenues. Although there would clearly be some wastage of funds through very small grants to localities in states where the local pass-through share is small and there are many small local governments, the plan does have the advantage that central cities would receive large allocations.

Unfortunately, however, the wealthy suburbs which spend lavishly would receive quite generous grants while the poor suburbs and poor rural towns would receive much less. Most central cities which have special problems would indeed receive above average per capita allocations, but this apparent advantage is more than offset by their much greater needs and higher existing tax rates, and they would receive little or no more aid per capita than many wealthy suburbs. For example, wealthy suburbs of Boston would receive over 50

percent more aid per capita than hard-pressed suburbs or cities where property tax rates are about twice as high.

Charts 3 and 5 clearly demonstrate the perverse distributional effects of this proposed type of revenue sharing in Massachusetts. Some towns with the lowest equalized tax rates would receive substantially more in per capita Federal aid than others with equalized tax rates two or three times as great. These results stem from the fact that the proposed distribution makes no attempt to take present tax effort into account and thereby relieve existing intrastate fiscal disparities.[27]

Chart 3

PER CAPITA GRANTS UNDER FEDERAL REVENUE SHARING PLANS
MASSACHUSETTS CITIES AND TOWNS BY EQUALIZED
PROPERTY TAX RATES
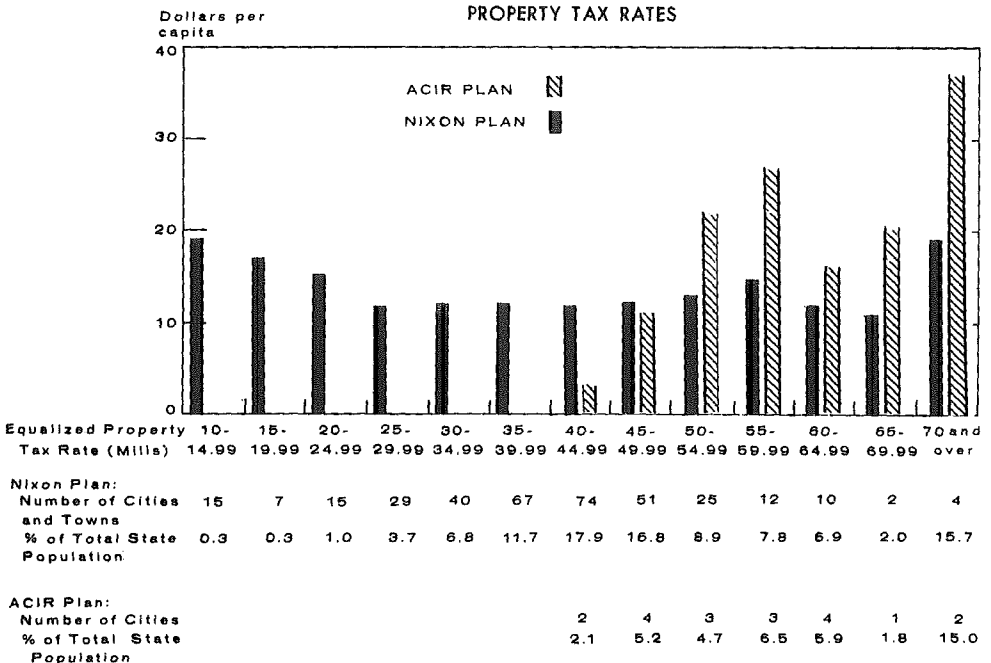
Equalized Property Tax Rate (Mills)	10- 14.99	15- 19.99	20- 24.99	25- 29.99	30- 34.99	35- 39.99	40- 44.99	45- 49.99	50- 54.99	55- 59.99	60- 64.99	65- 69.99	70 and over
Nixon Plan:													
Number of Cities and Towns	15	7	15	29	40	67	74	51	25	12	10	2	4
% of Total State Population	0.3	0.3	1.0	3.7	6.8	11.7	17.9	16.8	8.9	7.8	6.9	2.0	15.7
ACIR Plan:													
Number of Cities							2	4	3	3	4	1	2
% of Total State Population							2.1	5.2	4.7	6.5	5.9	1.8	15.0

Source: Federal Reserve Bank of Boston estimated distribution to Massachusetts cities and towns of a total of $5.1 billion of Federal revenue sharing funds.
Note: Additional data pertaining to this chart appear in Tables 3 and 4.

[27] Data for Massachusetts show a strong correlation of +.74 between local equalized valuation per capita and estimated per capita grants under the proposed pass-through arrangement. Moreover, per capita grants are negatively (but weakly--the coefficient is -.22) related to local tax rates and shows no general tendency to increase with population size.

TABLE III*

PER CAPITA GRANTS UNDER NIXON REVENUE SHARING PLAN, MASSACHUSETTS CITIES AND TOWNS BY EQUALIZED PROPERTY TAX RATES

RANGE OF LOCAL TAX RATES	NO. OF CITIES AND TOWNS RECEIVING AID	% OF STATE POPULATION IN CITIES & TOWNS	GRANTS PER CAPITA:			
			AVERAGE	MINIMUM	MEDIAN	MAXIMUM
10-14.99	15	0.29	18.93	9.49	18.61	49.59
15-19.99	7	0.26	16.89	10.60	13.54	19.96
20-24.99	15	0.97	15.14	8.12	13.94	24.02
25-29.99	29	3.71	11.66	6.35	11.01	19.93
30-34.99	40	6.83	11.93	6.77	10.66	32.52
35-39.99	67	11.71	12.08	1.96	11.57	18.51
40-44.99	74	17.94	11.82	5.14	11.12	18.54
45-49.99	51	16.81	11.92	5.85	11.93	17.18
50-54.99	25	8.91	13.00	7.91	11.18	22.99
55-59.99	12	7.81	14.50	7.01	14.14	21.35
60-64.99	10	6.88	11.65	8.08	11.58	12.33
65-69.99	2	1.98	10.81	10.78	11.06	11.31
Over 70	4	15.72	19.14	14.86	17.09	20.57
	351	100.00				

*Data underlying Chart 3.

TABLE IV*

PER CAPITA GRANTS UNDER ACIR REVENUE SHARING PLAN, MASSACHUSETTS CITIES AND TOWNS BY EQUALIZED PROPERTY TAX RATES

RANGE OF LOCAL TAX RATES	NO. OF CITIES AND TOWNS RECEIVING AID	% OF STATE POPULATION IN CITIES & TOWNS	GRANTS PER CAPITA:			
			AVERAGE	MINIMUM	MEDIAN	MAXIMUM
10-14.99	0	0.0	0.0	0.0	0.0	0.0
15-19.99	0	0.0	0.0	0.0	0.0	0.0
20-24.99	0	0.0	0.0	0.0	0.0	0.0
25-29.99	0	0.0	0.0	0.0	0.0	0.0
30-34.99	0	0.0	0.0	0.0	0.0	0.0
35-39.99	0	0.0	0.0	0.0	0.0	0.0
40-44.99	2	2.1	2.99	1.37	2.92	4.48
45-49.99	4	5.2	11.08	3.25	6.14	22.41
50-54.99	3	4.7	21.28	6.34	20.00	32.92
55-59.99	3	6.5	26.89	22.81	27.97	28.79
60-64.99	4	5.9	16.17	3.53	16.17	19.76
65-69.99	1	1.8	20.38	20.38	20.38	20.38
Over 70	2	15.0	36.88	29.38	34.23	39.08
	19	41.3				

*Data underlying Chart 3.

ACIR's Revenue Sharing Plan

Another type of revenue sharing plan has been proposed by the Advisory Commission on Intergovernmental Relations. The ACIR plan is specifically designed to provide assistance to the hard-pressed central cities and counties and to exclude aid for the typical suburb. Thus, it avoids some of the worst problems of the Administration's plan.

It has its own problems, however. It requires the states to pass through funds only to cities and counties with a population of more than 50,000. Furthermore, it provides a minimal amount of aid to those cities that have only slightly more than 50,000 residents. The ACIR plan specifically excludes townships and rural towns which have more than 50,000 residents but are not incorporated as cities.

The ACIR plan does require that the states also pass through funds to independent school districts. In each state these districts would receive a total allocation in proportion to their share of total state and local educational revenues. In some states, such as Massachusetts, however, there are no independent school districts as defined in the ACIR proposed plan. The regional school districts in Massachusetts are supported from the budget of each member town. Thus, in Massachusetts, the state would not be required to pass through funds to any school system.

The final result of the ACIR distribution for Massachusetts is shown in Charts 3 and 5. As you can see, no aid is provided to communities with very low equalized tax rates. However, the ACIR plan completely ignores the financial plight of many impoverished municipalities which have under 50,000 residents or which happen to be incorporated as towns.

In fact, two-thirds of the communities in the four highest equalized tax rate classes would receive no aid under the ACIR plan. The results are erratic. For example, a wealthy suburb would get about $33 per capita, while no money would go to a depressed municipality adjacent to the core city, where the tax rate is twice as high.

We conclude, therefore, that both the ACIR plan and that of the Administration are severely deficient. If we are to resolve the crisis problems of local finance, allocating Federal revenue in such a casual way is certainly not the answer.

In preparing this paper we had no difficulty in finding serious flaws in every aid formula we examined. In fact, the more we looked at state and Federal formulas the more critical we became. Many units of local government face severe financial problems, and yet very little specific help is forthcoming. As authors, however, we also faced a serious problem. We were unable to propose an entirely defensible plan of our own.

Difficulties of Constructing an Equitable Aid Formula

We knew that no general aid system could be developed at the federal level for all 80,000 units of local government, but we had thought we could devise a good equalizing formula for federal aid to all public school districts. There is considerable logic in concentrating on schools rather than on total local spending. Public school expenditures account for almost one quarter of all state and local spending in the United States.

Moreover, inferior schooling in poor communities obviously has "spill-over" effects throughout the United States. Finally we have the impression that funds allocated to schools are less likely to be squandered and more likely to be used in a professional manner than funds distributed for general municipal purposes.

We found, however, that there simply is no way to measure the relative tax base and tax effort of each and every school district. The differing tax structures within each state and the varying distributions of functional and financial responsibilities of states, counties, townships, and special districts make it impossible to evaluate — across state boundaries — the relative needs of individual districts.

As a result of these complexities, many public finance specialists are recommending Federal block grants for school aid. H. R. 10833 introduced by the National Education Association in the House of Representatives in 1969 is a good example of such a proposal. It would provide a $100 per student grant for all students in public schools. The money would be distributed on a pro rata basis to each state. The states, in turn, would allocate the funds to each of their school districts on an "equitable basis."

This same bill also specifies that for each $100 distributed on a flat grant basis, another $50 should be distributed according to the formula now being used for the Elementary and Secondary Educa-

tion Act of 1965. The NEA proposal has many obvious advantages. One third of the total of $7.8 billion of federal funds would be allocated primarily to low income school districts. Such a large program would partially displace the regressive local property tax with the progressive Federal income tax. The NEA proposal has an important disadvantage, however. It is almost certainly the case that the states would pass through most of their funds on a predominantly flat grant basis. As a result the differential benefit to impoverished districts would be reduced.

An Equalizing Education Block Grant Proposal

As an alternative, we suggest that the Federal Government distribute funds according to the basic eligibility criterion of the Elementary and Secondary Education Act of 1965; namely, in direct proportion to each community's share of the total number of children coming from families earning less than $3000 or from families earning more than $3000 that now receive federal aid for dependent children.

However, we would not follow other allocation provisions of the Act. Specifically we would not cut off Federal funds when they provide more than 50 percent of a school district's support, and we would not provide extra funds per student in states where per student expenditures are above average.
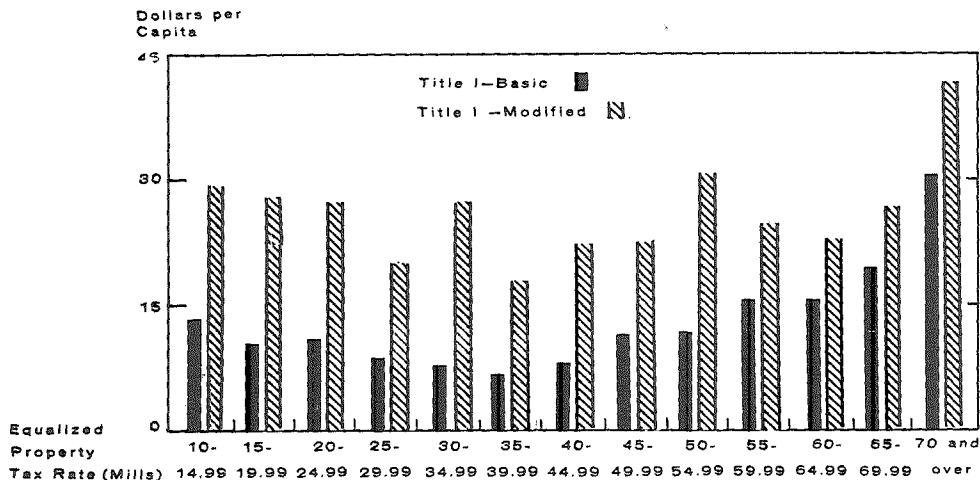
The results, for Massachusetts, as shown in Charts 4 and 5 would be substantially helpful to communities with the highest tax effort. Central cities such as Boston, Worcester, and Springfield, old mill towns such as Fall River, New Bedford, and Lowell, as well as small rural towns with a substantial low income population would all benefit. These types of communities would benefit much less under the Nixon and ACIR plans.

If the Federal Government wished to distribute funds only to financially pressed communities and eliminate many administrative problems as well, it could exclude communities where fewer than 10 percent of the children come from low income families. This modified plan would cut off federal aid to about four-fifths of the school systems in Massachusetts.

As you can see on Charts 4 and 5, this modified plan provides a much larger sum to high tax communities in Massachusetts. Although

Chart 4

PER CAPITA GRANTS UNDER ALLOCATIONS BASED ON TITLE I OF THE ELEMENTARY AND SECONDARY EDUCATION ACT OF 1965 MASSACHUSETTS CITIES AND TOWNS BY EQUALIZED PROPERTY TAX RATES

Dollars per
Capita

Title I—Basic ▓

Title I —Modified ▧

Equalized
Property
Tax Rate (Mills)

	10-14.99	15-19.99	20-24.99	25-29.99	30-34.99	35-39.99	40-44.99	45-49.99	50-54.99	55-59.99	60-64.99	65-69.99	70 and over
Title I —Basic Plan:													
Number of Cities and Towns	8	7	14	26	40	63	74	50	24	12	9	2	4
% of Total State Population	0.3	0.3	1.0	3.5	6.8	11.6	17.9	16.8	8.9	7.8	6.9	2.0	15.7
Title I—Excluding Cities and Towns with fewer than 10% of resident pupils eligble:													
Number of Cities and Towns	3	2	7	7	8	5	11	9	6	4	4	2	4
% of Total State Population	0.1	0.03	0.1	0.7	0.7	1.0	1.9	7.9	2.8	5.7	5.9	2.0	15.7

Source: Federal Reserve Bank of Boston estimated distribution to Massachusetts cities and towns of an
amount equal to the local pass-through under the Nixon Plan of a total of $5.1 billion of
Federal revenue sharing funds.

Note: Additional data pertaining to this chart appear in Tables 5 and 6.

TABLE V*

PER CAPITA GRANTS UNDER ALLOCATION BASED ON TITLE I OF ESEA, MASSACHUSETTS CITIES AND TOWNS BY EQUALIZED PROPERTY TAX RATES

| RANGE OF LOCAL TAX RATES	NO. OF CITIES AND TOWNS RECEIVING AID	% OF STATE POPULATION IN CITIES & TOWNS	GRANTS PER CAPITA:			
			AVERAGE	MINIMUM	MEDIAN	MAXIMUM
10-14.99	8	0.26	13.38	5.62	9.92	28.85
15-19.99	7	0.26	10.19	3.05	9.88	30.44
20-24.99	14	0.96	10.72	2.52	12.43	120.49
25-29.99	26	3.47	8.65	1.88	10.36	64.70
30-34.99	40	6.83	7.49	1.84	7.20	97.26
35-39.99	63	11.65	6.42	2.13	5.88	25.48
40-44.99	74	17.94	7.78	0.92	7.38	42.63
45-49.99	50	16.81	11.38	2.21	7.90	21.25
50-54.99	24	8.91	11.51	4.26	9.10	26.98
55-59.99	12	7.81	15.45	5.23	13.04	37.37
60-64.99	9	6.86	15.29	5.74	9.87	20.49
65-69.99	2	1.98	19.23	15.08	17.30	19.51
Over 70	4	15.72	30.31	18.72	26.92	33.87
	333	99.46				

*Data underlying Chart 4.

TABLE VI*

PER CAPITA GRANTS UNDER ALLOCATION BASED ON MODIFIED TITLE I OF ESEA, MASSACHUSETTS CITIES AND TOWNS BY EQUALIZED PROPERTY TAX RATES

RANGE OF LOCAL TAX RATES	NO. OF CITIES AND TOWNS RECEIVING AID	% OF STATE POPULATION IN CITIES & TOWNS	GRANTS PER CAPITA:			
			AVERAGE	MINIMUM	MEDIAN	MAXIMUM
10-14.99	3	0.10	29.16	26.71	36.24	39.75
15-19.99	2	0.03	27.82	24.74	33.25	41.76
20-24.99	7	0.13	27.21	17.47	25.82	165.82
25-29.99	7	0.67	19.92	12.36	26.48	89.06
30-34.99	8	0.73	26.94	18.80	33.39	133.84
35-39.99	5	0.98	17.57	15.35	24.57	34.99
40-44.99	11	1.87	22.17	13.25	22.38	58.64
45-49.99	9	7.93	22.34	15.82	20.47	29.24
50-54.99	6	2.78	30.58	16.47	22.99	37.18
55-59.99	4	5.69	24.68	18.53	24.53	51.42
60-64.99	4	5.90	22.69	15.58	22.22	28.20
65-69.99	2	1.98	26.46	20.76	23.80	26.85
Over 70	4	15.72	41.72	25.76	37.06	46.61
	72	44.51				

*Data underlying Chart 4.

Chart 5

FEDERAL REVENUE SHARING UNDER ALTERNATIVE PLANS
CUMULATIVE PERCENT DISTRIBUTION TO MASSACHUSETTS
CITIES AND TOWNS BY EQUALIZED
PROPERTY TAX RATES
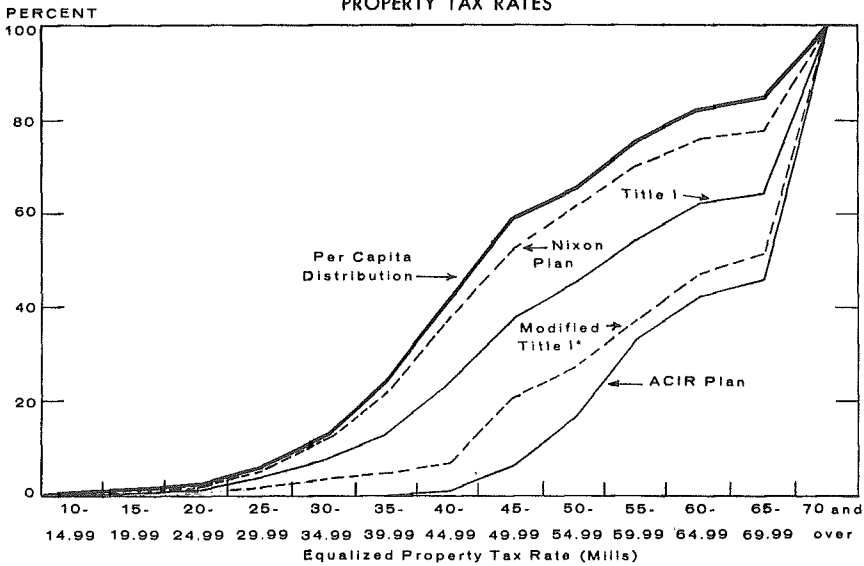
*Towns and cities with fewer than 10 percent of resident pupils eligible for Title I are excluded.

Source: Federal Reserve Bank of Boston estimated distribution to Massachusetts cities and towns:
Nixon and ACIR plans, a total of $5.1 billion of Federal revenue sharing funds;
all other plans, an amount equal to the local pass-through under the Nixon plan.
Note: Data underlying this chart appear in Table 7.

it does not redistribute proportionately as much to the large cities as does the ACIR plan, it does distribute substantial sums to financially distressed communities which have under 50,000 residents and to communities of over 50,000 which do not happen to be incorporated as cities. These are excluded in the ACIR proposal.

What is surprising is that this education block grant plan benefits low income cities more than the Nixon revenue sharing plan. This is true despite the fact that educational expenditures constitute a much smaller fraction of the total expenditures of large cities and problem cities than is the case of the typical middle or high income suburb.

It is apparent, then, that any formula which distributes funds to units of local government on the basis of their share of low income families is bound to help those communities which have the greatest financial need. The result is encouraging, for it shows that programs for direct Federal aid to local governments can be effectively equalizing and are feasible.

TABLE VII*

PERCENTAGE DISTRIBUTION OF GRANT FUNDS
TO MASSACHUSETTS CITIES AND TOWNS, BY LOCAL TAX RATE

RANGE OF LOCAL TAX RATES	POPULATION BASIS**		NIXON PLAN		ACIR PLAN	
	% OF FUNDS	CUMULATIVE %	% OF FUNDS	CUMULATIVE %	% OF FUNDS	CUMULATIVE %
10-14.99	.29	0.29	0.41	0.41	0	0
15-19.99	.26	0.55	0.33	0.74	0	0
20-24.99	.97	1.52	1.09	1.83	0	0
25-29.99	3.70	5.22	3.23	5.06	0	0
30-34.99	6.83	12.05	6.08	11.14	0	0
35-39.99	11.71	23.77	10.57	21.71	0	0
40-44.99	17.94	41.71	15.84	37.55	0.60	0.60
45-49.99	6.81	58.52	15.07	52.62	5.63	6.24
50-54.99	8.91	64.77	8.65	61.27	9.74	15.98
55-59.99	7.98	75.42	8.65	69.92	17.06	33.04
60-64.99	6.88	82.30	5.99	75.91	9.29	42.33
65-69.99	1.98	84.20	1.60	77.51	3.67	46.00
Over 70	15.72	100.00	22.48	99.99	54.00	100.00

*Data underlying Chart 5.

**This distribution represents hypothectical results of a straight per capita distribution of cities and towns.

TABLE VII (cont'd)

PERCENTAGE DISTRIBUTION OF GRANT FUNDS
TO MASSACHUSETTS CITIES AND TOWNS, BY LOCAL TAX RATE

RANGE OF LOCAL TAX RATES	ALLOCATION BASED ON TITLE I OF ESEA		ALLOCATION BASED ON MODIFIED TITLE I OF ESEA***	
	% OF FUNDS	CUMULATIVE %	% OF FUNDS	CUMULATIVE %
10-14.99	.26	.26	.23	.23
15-19.99	.29	.55	.19	.91
20-24.99	.76	1.31	.26	.67
25-29.99	2.22	3.53	.99	1.66
30-34.99	3.79	7.32	1.46	3.13
35-39.99	5.54	12.86	1.28	4.41
40-44.99	10.34	23.20	3.08	7.49
45-49.99	14.18	37.38	13.16	20.65
50-54.99	7.59	44.97	6.32	26.97
55-59.99	9.13	54.10	10.44	37.41
60-64.99	7.76	61.86	9.95	47.36
65-69.99	2.82	64.68	3.89	51.25
Over 70	35.30	99.98	48.75	100.00

***Towns and cities with fewer than 10% of resident pupils eligible for Title I grants are excluded.

The Problem of Redistribution of Federal and State Funds

DICK NETZER

The first half of this Conference is devoted to what is surely the most important aspect of the overall problem of financing state and local governments in the 1970's: the restructuring of intergovernmental fiscal relations and responsibilities in our Federal system.

The papers deal with specific policy instruments for accomplishing this restructuring. In reacting to the Weiss-Eisenmenger paper, I found it essential to step back from an appraisal of the policy instruments themselves, to review the appropriate *objectives* of reforms in fiscal federalism, that is, to recall the normative models developed previously by Professors Musgrave and Break and other writers.

This is largely because while I find the Weiss-Eisenmenger arguments unpersuasive, nonetheless I agree with their principal policy conclusion. That is, if a given additional amount of federally raised revenue is to be re-distributed to state and local governments, the highest priority attaches to a greatly expanded system of federal aid to elementary and secondary education, more or less along the lines of the Title I program. Parenthetically, it should be said that my own conclusion rests upon the assumption the Nixon welfare reform will be enacted and that amendments to it within a reasonable span of years will produce effective federalization of the entire income-maintenance system, with only minor and residual state-local fiscal participation.

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The paper before us seems to me unpersuasive for a number of reasons, but the most important traces back to its specification of objective: "channeling assistance to communities suffering the most severe financial strain," defining communities as local political subdivisions. This specification of objective leaves out some important concerns in fiscal federalism and by itself is disturbing, because it seems to equate equalization among political units with equalization among individuals and households.

A large number of American local political jurisdictions are "communities" in one sense only: some element of total local government taxation — the school tax, or the city tax, or the village tax — applies at a nominally uniform rate to all taxable objects or events within the geographic boundaries of the jurisdiction.

Outside New England, even this element of commonalty may be small, since residents of the same school district may be in different municipalities and tax-levying special districts, or *vice versa.* For example, within Westchester County, New York, or Lake County, Illinois, or Orange County, California, there are many hundreds of different total property tax rate combinations. More importantly, each of the political jurisdictions, even within a simple local government structure like that of New England, is an aggregation of heterogenous households. Therefore, it is poor public policy indeed to assume that the political subdivision is a good proxy through which to effect equalization among individuals.

The appropriate objectives, in reform of American fiscal federalism, would seem to be the following:

1. To re-structure fiscal arrangements to assist those *people* suffering the most strain, in terms of the ratios of public services provided and taxes exacted to income.

2. To optimize the output of public services, in quantity and in character, in an environment characterized by heavy geographic spill-overs of benefits and costs.

3. To improve the aggregate tax system so as to minimize the allocational losses produced by any real-world tax structure.

Most of the policy alternatives under discussion in recent years will assist in realizing one or more of these objectives. Some are more efficient than others and some can help with one objective at the expense of worsening things with regard to the other objectives.

The issue, then, is relative effectiveness with regard to a *set* of

objectives, no one of which has anything but an instrumental or even incidental relationship to the current fiscal position of specific political jurisdictions.

To be more concrete, let us turn to two specific sets of problems under present fiscal arrangements: the property tax and the under-supply of public services with large-scale geographic benefit spill-overs. The American property tax is defective on several grounds.

First, it involves substantial interpersonal inequity, both vertical and horizontal (see objective 1, above). Second, the wide variations in effective tax rates within metropolitan areas tend to have ineffi-cient locational consequences (allocational losses — see objective 3, above).

While the empirical evidence regarding actual locational shifts in response to rate differentials is mixed, there is very good evidence that suburban land-use control decisions are heavily influenced by and in turn have effects on rate differentials. Third, the tax, especially in central cities, has adverse housing investment and consumption effects, another form of allocational loss.

Any change in intergovernmental fiscal arrangements that moves away from reliance on locally-levied property tax revenue will tend to improve the situation. This is true of upward shifts in functional responsibilities (e.g., for public assistance) and of increased federal and state aid to local governments, almost regardless of the function aided.

Indeed, the principal political argument for state school aid always has been relief of local property tax burdens. Some lip-service has been paid to equalization, but that has hardly been the goal. (And Weiss and Eisenmenger to the contrary notwithstanding, the litera-ture of public finance does *not* abound with praise of state school aid as "a generally admirable example of equalization in practice.")

In fact, reduced reliance on the local property tax has been the main goal of most state aid and intra-state revenue sharing arrange-ments. To be sure, the specific policies often have been inefficient ones, in terms of the ultimate objectives I posted above. That is, they have not reduced state-wide interpersonal inequities nearly as much as alternative schemes might have done, nor shrunk inter-local tax rate disparities enough, nor addressed enough aid to central cities where the adverse effects on housing expenditure are most marked.

A large increase in Federal school aid, along the lines of the Title I

formula, would surely be more efficacious than tax credits or any of the revenue-sharing proposals recently advanced, in reducing reliance on the property tax where it hurts the most. The Weiss-Eisenmenger evidence suggests this, albeit indirectly. But revenue sharing is by no means totally ineffective.

In contrast to state aid arrangements, most Federal grant programs are, however inarticulately and imperfectly, concerned with spill-overs. They are designed to elicit more expenditure for specific public services than would be the case if the expenditure were financed entirely from non-federal funds. Quite properly, they have matching requirements, since it is presumed that there are *some* benefits from the expenditure that are internal to the state or local jurisdiction. To be sure, the matching requirements may not be a really good measure of the ratio of internal to external benefits and costs.

In some cases, the matching percentage is far below any rational calculation of internal benefits. Examples are Federal transportation, open space and urban renewal grants, where the benefits external to a state usually range from trivial to non-existent. In other cases, like the public assistance program since 1935, the matching percentage clearly has been far too high.

This is surely true of the Federal role in the financing of elementary and secondary education in general. Interstate mobility of the American population is considerable; large fractions of the post-school years of the children educated in any given school district are spent residing in other districts and other states.

Thus, the public good, or general benefit, aspect of education cannot be internalized within a school district or even a state and rational taxpayer-voters will "buy" less schooling than is optimal from a national viewpoint. Federal school aid equal to 5-10 percent of school costs is far less than is necessary, from this standpoint; 40 percent Federal support, I would guess, is more nearly the appropriate level.

This, of course, far outweighs, in dollar magnitude, all other possible changes in intergovernmental arrangements to deal with externalities. However, one can construct a strong case for more government action at the regional level, to finance and provide services now largely handled by small local governments from locally-raised funds (although sometimes with minor federal aid), in

particular activities connected with transportation, waste management, housing and land use — in short, the physical environment and the public services that affect it.

Various kinds of regional entities have been constructed to deal with these functions over the years, but in recent years, the most effective regional entities have been state governments themselves, in some of the highly urbanized states. But the state governments need large increments of revenue for these purposes, and state government tax systems are by no means ideal on distributive or allocation grounds.

A federal revenue-sharing plan in which a significant amount of money sticks to the state government itself can help finance, from superior taxes, regional functions that state governments might properly take over from local governments and provide at much higher levels of service.

Thus, although I conclude that increased Federal school aid on a Title I basis ranks high as a means of achieving all the objectives set out earlier, I see a place for Federal revenue sharing, as a means of supporting a more active state government role in our federal system. That more active role would have some incidental benefits, in reducing reliance on locally-raised property taxes, but its principal advantage would be in the output of public services with geographic externalities.

In this solution, the pass-through provisions of the Federal revenue sharing scheme do not matter at all, for the concern is not with the fiscal position of local governments but with the country's tax system and output of public services.

The Variable Cost Burdens
of State and Local
Governments

HARVEY E. BRAZER

The foundation for the burgeoning interest of economists in the state-local sector of the economy in recent years rests in part on the fact that state-local purchases of goods and services comprise a large and growing part of Gross National Product. By the first quarter of 1970 they amounted to $119 billion, 12.4 per cent of GNP,[1] compared with only 4.8 per cent in 1942 and 8.2 per cent in 1957.[2]

State and local governments now contribute more directly to aggregate demand in the economy than the Federal Government, only $15 billion less than gross private domestic investment, and one-third more than consumer expenditures for durable goods.

Experience during the past 30 years in the United States with respect to state-local expenditures in relation to total income and output does not mesh well with the findings of economists who have studied trends over time in public expenditures for earlier periods here and in other countries. For the most part these studies have found that public expenditures may be expected to grow more or less proportionately as population, urbanization, prices, and income rise, as technology advances, and as the complexity of the economy

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[1]U.S. Department of Commerce, Office of Business Economics, *Survey of Current Business*, Vol. 50, No. 5 (May 1970), p. S-1.

[2]U.S. Department of Commerce, Office of Business Economics, *U.S. Income and Output: A Supplement to the Survey of Current Business*, Washington, D.C., 1958, p. 119.

increases.[3] Others have suggested that dramatic events such as wars or severe depressions have "displacement" effects that overcome resistance to sharply higher levels of taxation and expenditures and facilitate centralization or "concentration" with accompanying expansion of the public sector.[4]

And even Adolph Wagner's assertion, which is not supported by Henry Carter Adams' nineteenth century data for the United States, the United Kingdom, and France,[5] to the effect that expenditures may be expected to rise more than in proportion to income,[6] hardly begins to account for the observed rapidly mounting ratio of state-local expenditures to GNP since World War II.

Growth in the Proportion of State-Local Expenditures

This observed growth reflects the rising importance of services, including public services supplied by state and local governments, for the quality of life in an increasingly affluent, urbanized society in which education, transportation, health, recreation, and other services are commanding a growing share of resources. For example, by fiscal 1967-68 (latest available data) state-local expenditures for education at all levels amounted to $41.2 billion,[7] up from $5.3

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[3]See for example, Solomon Fabricant, *The Trend of Government Activity in the United States Since 1900,* New York, National Bureau of Economic Research, Inc., 1952, especially chapter 7; R. A. Musgrave and J. M. Culbertson, "The Growth of Public Expenditures in the United States, 1890-1948," *National Tax Journal,* Vol. VI, No. 2 (June 1953); and the much ealier work of Henry Carter Adams, *The Science of Finance,* New York, Henry Holt and Company, 1909, Book I, Chapter IV.

[4]G. Colm and M. Helzner, "The Structure of Government Revenue and Expenditure in Relation to the Economic Development of the United States," in International Institute of Public Finance, *L'Importance et la Structure des Recettes et des Depenses Publiques,* Brussels, 1960, and Alan T. Peacock and Jack Wiseman, *The Growth of Public Expenditure in the United Kingdom,* New York, National Bureau of Economic Research, Inc., 1961.

[5]Adams, *op. cit.,* pp. 92-3.

[6]Adolph Wagner, "Three Extracts on Public Finance," in Richard A. Musgrave and Alan T. Peacock, eds., *Classics in the Theory of Public Finance,* New York, The MacMillan Company, 1958, p. 7.

[7]U.S. Department of Commerce, Bureau of the Census, *Governmental Finances in 1967-68,* Washington, D.C., 1969, p. 34.

billion in 1948.[8]

This very large increase in expenditures reflects not only increasing total demand for education, but also a substantial shift in the relative importance of the public sector.

Private institutions of higher education in 1967-68 accounted for 27.7 percent of total public and private expenditures, compared with 37.5 percent 20 years earlier. In primary and secondary education the proportions changed even more dramatically, from 13.8 percent private to only 6.4 percent.[9]

And while not quite as readily documented, it would appear that a similar phenomenon has occurred with respect to health and hospital services and other services supplied in both the public and private sectors.

These observations tend to support the expectation expressed by Fabricant, almost 20 years ago, when he suggested that ". . . with technological advance, and the rising national income it brings, government as well as private enterprise will be called upon to produce an increasing volume of the educational, recreational, health, and other services that people demand when they are richer."[10] But this suggestion by itself seems insufficient to explain the veritable "take-off" in state-local expenditures relative to income that has occurred since World War II. To it I would add the influence of such factors as the leap forward in communications and the demonstration effects it has had and the role of a wider acceptance of an egalitarian ethic.

The Role of Egalitarianism in the Growth of State-Local Expenditures

Evidence of the influence of egalitarianism may be seen in the

[8]U.S. Department of Commerce, Bureau of the Census, *Historical Statistics on State and Local Government Finances, 1902-1953,* Washington, D.C., 1955, p. 17.

[9]Derived from data contained in sources cited in notes 7 and 8 and, for private institutions of higher education and primary and secondary schools, *Survey of Current Business,* Vol. 49, No. 7 (July 1969), p. 28, and U.S. Department of Commerce, Office of Business Economics, *The National Income and Product Accounts of the United States, 1929-1965. Statistical Tables,* Washington, D.C., 1966, p. 47. For private expenditures the fiscal year data estimated by taking the means for 1947 and 1948 and 1967 and 1968.

[10]*Op. cit.,* p. 154.

growth of public and private philanthropy. The latter has increased steadily, but only more or less in proportion to income, of which it represents about 2 percent. Public welfare expenditures by state and local governments, on the other hand, have increased substantially more rapidly than national income, rising from 1.0 to 1.2 percent of income between 1948 and 1968.[11]

But the influence of egalitarianism is probably of even larger quantitative importance in the case of such state-local services as education and public health and hospitals. With respect to education the goal of "equal educational opportunity," whatever that may mean, has been widely endorsed.[12]

It has its roots in the recognition of the importance of education as a determinant of income, and hence economic opportunity. In a similar vein adequate health services as a right available to all, rather than a privilege of the few, is gaining ever widening acceptance in our society.

Need for an Empirical Study

Clearly what is needed if we are to gain positive insights into the reasons for the behavior of state-local expenditures during the past two decades and, hopefully, some understanding of the prospects for the future, is a rigorous empirical study of the factors that may explain this behavior. Thus far only two approaches have been suggested in work that has been done, and both seem far off target, partly because they seek to explain short-run or year-to-year changes rather than longer-term trends.

Morss, Fredland, and Hymans used a linear regression model to explain annual percentage changes in state government expenditures in each of 48 states.[13] Their results may be characterized primarily by the lack of consistency in the explanatory power of their fiscal and political variables among the several states.

[11]Derived from sources cited in notes 7, 8, and 9.

[12]See, for example, the views of the Advisory Commission on Intergovernmental Relations in its *State Aid to Local Government*, Washington, D.C., 1969, pp. 14-15.

[13]Elliott R. Morss, J. Eric Fredland, and Saul H. Hymans, "Fluctuations in State Expenditures; An Econometric Analysis," *The Southern Economic Journal*, Vol. XXXIII, No. 4 (April 1967).

Davis, Dempster, and Wildavsky also employ time series regression analysis to explain changes in Federal expenditures and suggest that their approach may be fruitful at the state-local level.[14] But regressing one year's expenditures on such variables as the prior year's expenditures or appropriations requests seems to me to promise little or nothing by way of insights into the issue at hand. The finding that expenditures in year 1 are "explained" by expenditures in year 0 and that the regression coefficient is equal to, say, 1.1, strikes me as an inordinately complex way to go about computing an average annual rate of growth.

Research into the issue at hand might fruitfully pursue Wagner's hypothesis by examining the relationship between changes over time in expenditures and changes in "the 'free' national income (i.e., in Roscher's sense that part of national income which is left after the satisfaction of the people's essential material needs)."[15] Additional predictor variables that may be suggested are measures of dependency in the population, the occupational mix of the labor force, urbanization, and others that some imaginative thought and careful observation may produce.

One may be tempted to suggest that the volume of Federal aid be included as an explanatory variable, especially because it has grown from less than $2 billion in 1948 to over $17 billion in 1968 and now exceeds $25 billion.

In 1968 Federal grants amounted to 16.8 percent of direct general state-local expenditures, compared with 10.6 percent in 1948.[16] The influence of Federal aid on state-local expenditures is certainly of major interest, but it must be handled with care, partly because we should avoid "explaining" any sum by one of its major parts, and partly because the phenomenon represented by its growth is itself one that demands understanding.

The task I envisage contains no normative implications. It calls forth, rather, the effort to understand, in a positive sense, the underlying forces that have given rise to the observed behavior of a

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[14]Otto A. Davis, M. A. H. Dempster, and Aaron Wildavsky, "A Theory of the Budgetary Process," *The American Political Science Review*, Vol. LX, No. 3 (September 1966).

[15]Wagner, *op. cit.*, p. 7.

[16]From sources cited in notes 7 and 8 *supra*.

rapidly growing and increasingly important sector of the economy and is justified by the hope that such understanding will be useful for predictive purposes.[17]

Variance Among Units of Government in Levels of Expenditures

The economist's basic concern with the allocation of scarce resources among alternative uses has carried him a long way toward an understanding of the mechanisms involved in the private sector of the economy and we have a well-developed body of normative as well as positive theory.

Through the well-known efforts of Musgrave, Samuelson, and others the normative theory has been extended to the public sector. But, as we have seen, our understanding, in the sense of our ability to explain and predict behavior in the public sector, of why resources are allocated as they are between the private and public sectors and within the latter, is still at a rather primitive stage.

We have looked at the issues and prospects in terms of changes in state-local expenditures over time. Another, equally intriguing and still perhaps only somewhat less frustrating, approach involves the examination and analysis of differences at any one time in levels of expenditure of similar governmental units or among states with respect to the state governments and local subdivisions.

That there is a great deal of variance to be explained may be seen in the differences among the states in levels of combined state-local expenditures per capita or relative to income. Thus in fiscal year 1967-68 total general expenditure of state and local governments in the United States as a whole was $512 per capita. But it was $1,203 per capita in Alaska and between $700 and $736 in Hawaii, Nevada, and New York, the four highest spending states, and roughly only

[17]There has been no dearth of projections of state-local expenditures. For two recent efforts see Tax Foundation, *Fiscal Outlook for State and Local Governement to 1975*, New York, Tax Foundation, Inc., 1966, and Selma Mushkin and Gabrielle C. Lupo, "Project '70: Projecting the State-Local Sector," *Review of Economics and Statistics*, Vol. XLIX, No. 2 (May 1967). But these and earlier projections have not been based on a positive theory or on statistically estimated parameters. And the record of conformity with actual outcomes has left much to be desired. The 1966 Tax Foundation study, for example, would have state-local general expenditures exceeding the actual 1968 level of $102.4 billion by only $3.5 billion in 1970. Its projection for 1970 seems likely to be over $20 billion too low. For education the 1968 expenditures were roughly equal to the 1970 projection. *Op. cit.*, p. 91.

half as high in Arkansas, Mississippi, North Carolina, and South Carolina, the four lowest, where state-local expenditures ranged from $340 to $373 per capita.

And while expenditure in Alaska, North Dakota, Vermont, and Wyoming ranged between 23.3 and 32.8 percent of personal income, it amounted to between 12.5 and 14 percent in Missouri, New Jersey, Ohio, and Pennsylvania, compared with the U.S. average of 16.4 percent.[18]

Similar differences may be found among state governments, and among cities, school districts, and other comparable units of government, both within and between states.

Unlike the situation with respect to studies of changes in expenditure levels over time, in little more than a decade some six dozen books and articles have been published which employ statistical techniques in the effort to explain variance in expenditures among governmental units in a given year.[19]

Some of these studies are concerned with total expenditures, while others deal with selected functional categories and still others with both. This extensive literature has now been subject to several intensive surveys and reviews.[20] I propose here to do no more than present a brief overview, designed to give us some sense of where we are.

Variance "Explained"

Almost all of the statistical studies of variance among the states in the level of state-local expenditures per capita employ a single linear

[18]*Governmental Finances in 1967-68,* pp. 45 and 50.

[19]Roy W. Bahl, "Studies on Determinants of Public Expenditures: A Review," in Selma J. Mushkin and John F. Cotton, *Functional Federalism: Grants-in-Aid and PPB Systems,* Washington, D.C., State-Local Finances Project of the George Washington University, 1968, listed 66 such studies in 1967. In 1968 and 1969 one may count an additional even dozen published in the *National Tax Journal* alone.

[20]See Barry N. Siegel, "On the Positive Theory of State and Local Expenditures," in Paul L. Kleinsorge, ed., *Public Finance and Welfare: Essays in Honor of C. Ward Macy,* Eugene, University of Oregon Books, 1966; Werner Z. Hirsch, "The Supply of Public Services," in Harvey S. Perloff and Lowdon Wingo, Jr., eds., *Issues in Urban Economics,* Baltimore, The Johns Hopkins Press, 1968; Gail Wilensky, "Determinants of Local Government Expenditures," in J. P. Crecine, ed., *Financing the Metropolis,* Beverly Hills, Calif., Sage Publications, 1970; and Bahl, *op. cit.*

equation the parameters of which are estimated by means of least-squares multiple regression analysis. They generally find that between one-half and three-quarters of the total variance is "explained" by income or some variant thereof, population density, and proportion of the population living in urbanized places. That density and urbanization would appear to be alternative statements of the same thing is typically blithely ignored.

Efforts to improve the explanatory power of the equation have taken the direction of adding state and federal aid per capita, other fiscal variables, and political variables designed to reflect the strength or weakness of one-party dominance.

The political variables have added little or nothing to the proportion of variance explained and one suspects that the "explanatory" power of federal aid largely derives from the fact that its use constitutes regressing one variable on one of its major components.

State aid has more intuitive appeal because it seems plausible that the larger it is, to the extent that it substitutes for locally raised funds, the less important may be the constraint on local expenditures imposed by inter-local competition for industry and wealth; because state tax sources may meet with less taxpayer resistance than local property taxes; and because there may be something to the Peacock-Wiseman concentration or centralization hypothesis. But one also suspects that state aid is highly correlated with state direct expenditures and that, therefore, it is in fact not a truly independent variable.

The ultimate in efforts to explain variance in state expenditures in a given year is perhaps that of Sharkansky, who finds that he can "explain" variance in one year's expenditures by using the prior year's expenditures as an "independent" variable! Needless to say, he obtains the highest coefficients of multiple determination in the literature. I should expect that his results would be very much the same were he dealing with combined state-local expenditures. Given his R^2 values of higher than .9 the game must surely now be over, even though he is not disturbed by negative coefficients for federal aid and the absence of statistically significant values for personal income and tax effort.[21]

What, then, have we found that's meaningful? Very little, it seems

[21]Ira Sharkansky, "Some More Thoughts About the Determinants of Government Expenditures," *National Tax Journal*, Vol. XX, No. 2 (June 1967).

to me, that Fabricant did not discover almost 20 years ago, namely that state-local expenditures per capita appear to be responsive to differences among the states in income and urbanization or population density.[22]

In statistical studies of city and school expenditures we find confirmation, generally, of the fact that the income elasticity of demand for public expenditures is greater than zero. City expenditures also appear to be somewhat sensitive to population density and, for central cities, to the ratio of SMSA to city population.

As in the case of the analysis of state-local expenditures, one can always increase the "explanatory" power of the equation by inserting revenue from higher levels of government into it. And expenditures are very nicely accounted for when the dependent variable is broken down into its parts and these parts are then employed as predictor variables.[23]

Finally, it should be noted that city expenditures appear to be sensitive to the character or function of the community. Thus, core cities of major metropolitan areas spend more per capita of resident population than their suburbs, and cities that are not defined as being a part of an SMSA and core cities of the smaller SMSA's spend less than either group. This appears to reflect both the influence on expenditures of the central city's contact population and the fact that the larger central cities are, in most parts of the country, the place in which new low-income, often culturally deprived, migrants and minority groups generally live.

How useful the findings of the studies briefly described here are depends upon the objectives and ambitions of the observer. If one is interested simply in comparing the level of expenditures per capita in a given city, for example, with levels elsewhere, then it would seem most meaningful to draw the comparison between actual local expenditures and the level "expected" in a city of its characteristics, using the characteristics that appear from statistical analyses to be relevant as weighting factors.

The same may be said with respect to other units of government, combined state-local expenditures, in total and by functional cate-

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[22] Fabricant, *op. cit.*, chapter 6.

[23] Werner Z. Hirsch has employed this technique in several articles, all of which are listed by Bahl, *op. cit.*, p. 206.

gory. That is, useful descriptions of performance are better described by comparisons between actual and expected (i.e., computed from regression equation parameters) expenditures than by comparison between unweighted observed values.

Allocative Process Unknown

If, however, we are more ambitious, if it is understanding of the allocative process we are seeking, clearly no end of single equation least-squares estimates will be likely to provide the answers. Even if we are thoroughly convinced, for example, that income is an important determinant of expenditure levels, the methodology thus far employed fails to tell us why or how income influences expenditures. Logically we can surmise that it operates through the demand function; that is, that demand is income elastic. But if high income in a city is a function of high local wage rates we should also expect that public employees, whose supply is less than infinitely elastic to any one governmental unit, must be paid higher wages than in a low-wage area. Much the same may be said of other predictor variables, and single equation models, therefore, present insuperable problems of identification.

Furthermore, if we are concerned with resource allocation we need to know a good deal about demand functions and about production functions or supply conditions. Thus economists, given their methodological tool kit and strong predilection in favor of individualism and consumer sovereignty as the motivating force behind resource allocation decisions, are bound to enter a plea for analyses couched in terms of a model that takes the form of a set of structural equations descriptive of demand and supply functions.

The parallel with analyses relating to the private sector requires that we be able to define the product; and, clearly, expenditure, in total or per capita, does not do that. But what is the product of police or fire services, or education? Noting that product differentiation is common in the private sector[24] hardly seems instructive.

Unless, or until, we have defined the product the output of which is being supplied and demanded, estimating demand and supply equations is simply not possible. A plea for adopting this approach,[25] at this juncture at any rate, strikes me as being about as

[24]Hirsch, *op. cit.*, pp. 480-1.

[25]See, for example, Gail Wilensky, *op. cit.*, pp. 207-8, and Alan Ginsberg, Gunther Schramm, and Gail R. Wilensky, "The Problem with Expenditure Determinant Studies" (unpublished paper).

useful as the drunk's efforts to find his lost keys under the lamppost because the light is better there. I conclude this portion of my analysis, therefore, on a pessimistic, or at least skeptical, note.

Variance in Expenditures and "Needs"

The concept of "need" is no more meaningful to the economist in the public than it is in the private sector of the economy, given an individualistic approach to the analysis of resource allocation. It assumes operational significance for policy only if we accept the notion that, with respect to the consumption of some or all public services or income maintenance levels, minimum standards must be accessible to everyone, irrespective of where he may live. In a democratic society this requires standards imposed, in the case of local governments and the states, by higher levels of government, standards which presumably reflect the preferences of the larger community.

Thus, for example, "equal educational opportunity" may be operationally interpreted as "universal access to a minimum of educational resources." This minimum may be defined as that level which the relevant community, the state or the nation, views as adequate to the objective of equality of economic opportunity. In this context education may be said to contribute to equality of economic opportunity if, as a minimum, children are not handicapped by being exposed to a clearly inferior quality of schooling.

One may judge that the suggested criterion is not being met when operating expenditure per pupil ranged in 1967-68 from $1,024 in New York to $364 in Mississippi.[26] Moreover, variance within states is very large as well. In Michigan, for example, with a statewide average estimated at $617 in the same year, the range extended from $402 per pupil to $951.[27]

In the case of income maintenance programs such as AFDC monthly payments per recipient in the United States averaged $45 in August of 1969. But such payments ranged from an average of $11

[26]National Education Association, *Rankings of the States, 1969*, Washington, D.C., 1969, p. 59.

[27]Michigan Department of Education, *Ranking of Michigan Public High School Districts by Selected Financial Data, 1967-68*, Bulletin 1012, Lansing, Mich., December, 1968, pp. 23 and 29.

in Mississippi to $66 in Massachusetts, New Jersey, and New York.[28]

Again, one may speak of "need" in terms of a minimum standard accessible to all. The minimum may be expressed in terms of the cost of purchasing a market basket of goods and services deemed necessary for the maintenance of health and decency. The same may be said, of course, with respect to other income maintenance programs now administered by state or state and local authorities.

But even in the cases of primary and secondary education and income support, "needs" can only be defined arbitrarily, and minimum standards imposed from above must derive their authority from appeal to statewide or national "interest," an elusive concept at best, but one which may command support and operational effectiveness through the political process. Can the same be said with respect to other major functions of state and local governments? My own tentative answer is a hesitant "no."

Public wants, as given by individuals' tastes and preferences, must be afforded the same primacy in the public sector as are private wants in the private sector of the economy, and "needs" have meaning, for the most part, as subjective elements governing individuals' wants. For most state-local functions imposed standards of consumption have no more claim to dominance than they do in the private sector.

Policy Directions

Implications for policy may be seen in both the trend in recent years in levels of state-local expenditures and in the variance in expenditure among state and local units.

The rapid rate of growth in state-local expenditure in absolute amounts and relative to income warrants a deepening concern for the kinds of tax sources used to support this growth and their economic consequences. In this context the local property tax appears to me to present the most serious problems. Total revenues from this source rose between 1948 and 1968 from $6.1 billion to $27.7 billion and declined as a proportion of total state-local tax receipts only from 45.9 to 41.0 percent.[29]

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[28]U.S. Department of Health, Education, and Welfare, *Welfare in Review*, Vol. 8, No. 1 (January-February 1970), p. 33.

[29]*Historical Statistics, 1902-1953*, p. 21, and *Governmental Finances in 1967-68*, p. 31.

The defects of the property tax are, of course, well known. It is generally regarded as both horizontally and vertically inequitable; it inhibits efficiency in resource allocation; and it encourages socially undesirable land use patterns. In addition, it has been shown to lead to inefficient budgetary outcomes with respect specifically to school finance.[30]

These defects become increasingly costly as the weight of the tax in the economy increases. They suggest that other sources of revenue be substituted, at least to the extent compatible with administrative feasibility at the local level in the case of alternative local tax sources and user charges, and, in my view, they lend support to other arguments in favor of Federal and state revenue sharing and the expansion of grants-in-aid.

The large variance in state and local expenditures, particularly in the areas of primary and secondary education, welfare, and, perhaps, health, when seen as being closely related to differences in income or wealth, may be regarded as intolerable in the light of such broad objectives as equalizing economic opportunity and ensuring a tolerable minimum standard of living for everyone.

In the case of welfare or income maintenance there appears to be a developing consensus in favor of Federal assumption of most or all of the fiscal and administrative responsibility now borne by state and local governments. I can only offer my strong endorsement of this policy position.

In primary and secondary education I believe that a convincing case can be made for continued local control with constraints imposed by state agencies. But equalizing educational opportunity by providing the suggested universal access to a minimum of educational resources requires that the fiscal roles of the state and Federal governments be substantially increased and revised.

At the state level the approach that has most appeal for me is one that retains the essence of the so-called "foundation program," but goes much further in ensuring equalization, adequacy, and stimulation of local effort than common practice among the states now does. The immediate objective is to ensure that all school districts in a state realize the same amount of revenue per pupil per mill in the tax rate, assuming local property tax finance.

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[30]Robin Barlow, "Efficiency Aspects of Local School Finance," *The Journal of Political Economy*, Vol. 78, No. 3 (July/August 1970).

The state might stipulate a minimum sum per pupil, to be adjusted upward with rising costs and weighted for pupils requiring special effort, such as those defined as culturally deprived, together with a minimum local tax rate. Suppose that this minimum were established at $1,000 per pupil and that the minimum tax rate required were set at 20 mills. The state aid ratio then is

$$\frac{\dfrac{\$1,000 - .02 \text{ SEV}}{.02 \text{ SEV}}}{1}$$

where SEV is state equalized value of taxable property per pupil in the district. Under this formula all districts levying 20 mills (with SEV of $50,000 or less) would realize $1,000 per pupil irrespective of the taxable wealth available to them. Moreover, each additional mill in the tax rate beyond 20 mills would also yield the same amount per pupil in all districts.[31] Adjusting the formula to take into account nonproperty taxes levied by the school district should, of course, present no appreciable difficulties.

To the extent that there is, as I believe to be the case, a national interest in ensuring that the stipulated objective in education be achieved, a similar approach to federal aid for education to the states appears to me to be appropriate. This approach is designed to reduce inequality in educational, and therefore economic, opportunity by equalizing the tax price to taxpayers everywhere of supplying educational resources. It retains local responsibility and those options at the margin that are conducive to efficiency in resource allocation. It simply reduces or eliminates taxpayer-price differentials.

For functions other than primary and secondary education and welfare my own policy preferences lead me to advocacy of a major role for some form of revenue sharing, at both the federal and state levels. But this topic has been more than adequately discussed in earlier papers presented at this Conference.

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[31]This approach to state aid is presented in greater detail in Harvey E. Brazer, "Federal, State, and Local Responsibility for Financing Education," in Roe L. Johns, ed., *Economic Factors Affecting the Financing of Education in the Decade Ahead,* Gainesville, Fla., National Education Finance Project, forthcoming.

DISCUSSION

BENJAMIN CHINITZ

This is an ideal paper for a discussant in many respects. Very often I get a paper to discuss and I spend an awful lot of time just trying to figure out what the author is saying. This was an easy paper to read and digest, and it's also ideal because it's open-ended. It's essentially an invitation to a discussant to join the author in speculating about a lot of important issues.

First I would like to introduce a few numbers to sharpen the perspective that Harvey has given us on the growth of state and local expenditures. I am sure that Harvey is aware of these numbers, and let me say, Harvey, that you are welcome to use them in your final draft if you agree with their relevance.

To begin with, he gave you three dates: 4.8 percent of GNP in 1942, 8.2 percent in 1957, and 12.4 percent in 1970. Well, it turns out that in 1929, in other words 13 years before 1942, state and local expenditures accounted for 7 percent of GNP, so that they actually declined as a share of GNP during that period. I don't have the intervening dates, but in 1957 it was 8.2 percent, so it was just a shade above its 1929 level. Just as a side comment, the actual dollars in 1942 were the same as the dollars in 1929, which I found both interesting and astounding. Now does this change Harvey's interpretation of what is happening? I think that it suggests that the trend is, in some sense, of even more recent origin than he suggested. In other words, the big changes essentially come in the last decade, or in the last dozen years. We spent a good part of the earlier period just catching up with the pre-war situation.

The second set of numbers I want to introduce is, I guess, in the spirit of trying to dispel some of the mystery that Harvey has cast over this phenomenon. Let me say parenthetically that I was very pleased to get this paper because I am a relative novice in the public finance field, and I set myself this problem as one of the things I

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would like to work on. I was glad to learn from an expert that the problem hasn't yet been solved, so it is a legitimate one for further inquiry. But it turns out that if you introduce one variable, namely cost, that at least by some measures, and I wish I knew more about these measures so that I could be fully confident that they are relevant, you just get an entirely different picture of the historical development of state and local finance.

What I am referring to is expenditures in constant dollars, with the GNP deflated by its deflator, and the state-local expenditures deflated by its deflator. It turns out that in 1958 prices, in 1929 state and local expenditures were 9.1 percent of GNP. In 1947 they were 6.7 percent. In 1957 they were 8.3 percent, and in 1967 they were 9.8 percent. I would assume that in 1970 they were probably more than 10 percent.

But again I found this kind of interesting and affecting my own perspective on the history of state and local finance. What this says, if you believe the data, is that in real terms, that is, corrected for their respective rates of price increase, we have just recently, in effect, gotten back to pre-depression levels in terms of share of GNP. This is rather striking. Of course, what it implies, obviously, is that the rate of price increase, or the rate of factor cost increase, in the state and local sector has been a lot more rapid than in the economy at large. I haven't looked at the figures recently, but I think it is something like 50 percent above the base now, as compared to something like 25 percent for GNP as a whole.

So while I agree with Harvey that the phenomenon bears further effort towards complete explanation, it seems to be clear that reference to what is happening on the cost side goes a long way. It almost takes away the percentage increase in GNP, and leaves you more with the challenge of explaining absolute levels. But we are now moving into new territory even in terms of percentage of GNP in real terms.

I think, when you come down to it, the motivation for trying to understand the growth of state and local expenditures really is trying to predict the future. The question we are sort of asking ourselves is, "Is this going to go on at more or less the same rate in the future?" Obviously that is a disturbing prospect — the notion that state and local expenditures would continue to absorb a larger amount of your share of our resources. It also would raise some very serious policy questions — like, isn't there any way we can economize in the local public sector?

Now it seems to me that to provide a basis for speculating about the future in the absence of scientifically satisfactory explanations of the past, and I have got to accept Harvey's judgement that that is the state of affairs, that the best we can do is to set up a little framework of likely causes and, without being able to quantify them in terms of partial coefficients, then ask ourselves just on a speculative basis whether we have any reason to believe the future will look different from the past with respect to those causes, which on an *a priori* basis, would seem to be relevant to our problem.

The natural place to begin would be the one I have already mentioned, namely, unit costs. Do we have any reason to believe that the future will be any different from the past (and by the past, of course, we mean the last decade or 12-15 years) in terms of the increase in factor costs, which means salaries for teachers, firemen, policemen, and construction costs, for schools and other kinds of public buildings.

As you look back I think you will probably find that the unit costs have risen in this most recent period for two related reasons. One is the expected one, namely, that as productivity increases in the economy at large and you get higher wage levels on the average, you have got to have higher wage levels even in those sectors where you do not achieve productivity increases. Otherwise you can't keep the factors in those sectors. You cannot keep the barber in the barber-shop unless you pay him a wage that reflects what is going on in the steel mill, even though there is no increase in productivity in the barbershop. In the same way, you can't keep teachers in schools unless their salaries reflect what is going on in the economy at large. Now I gather what has happened in the recent period is more than that. In fact, Harvey was telling me yesterday that in his own work in trying to project salaries, he found that he was underestimating salary increase because he used the first factor as the base, namely, what is happening to wages in general in the economy at large. It turns out that teachers have done better than that in recent years. Now if this is true, then what we have to ask ourselves with respect to the future is, have we had a catching up process over this postwar period, and if we have caught up in some sense, can we look to the future and expect mainly only that rate of increase which will reflect the rate of increase in productivity and earnings in the economy at large? I do not know the answer, but I offer you that as a basis for perhaps thinking about that question.

Now, undoubtedly, a second factor which has influenced the growth of expenditures, in very simple terms, has been the increase in the size of the job that has to be done for a given standard, without new aspirations, without raising social goals, without increasing standards. A lot of the increase in state and local expenditure in the postwar period boils down to just having to do a lot more of what you were doing traditionally.

I would like to characterize the growth of the clientele with reference to three representative units: kids, cars, and garbage. Each one is a proxy for a set.

"Kids" reflects the baby boom and the growth of population, and to the extent that population enters into other cost pressures, I am using kids as a proxy for them too. This has been the period in which automobile ownership has gone up to saturation level almost, so that if you wanted to maintain a given standard of mobility you have to build a lot of highways. And garbage, of course, is my proxy for all of the negative spill-outs from economic progress. Garbage in the literal sense, and, well, it is almost always literal — never figurative. Whether it's air pollution, water pollution, or solid waste, it is literal.

I made one calculation for education which shows this very dramatic figure that Harvey mentioned earlier in the growth of educational expenditures in the post-war period. If you took my first two factors into account, namely, the behavior of cost and the size of the job that had to be done, namely, the number of kids that had to be educated, at fixed standards, you explained about 80 to 90 percent of the growth of education budgets in the United States in the post-war period. So again I am trying to suggest that even if there is no systematic explanation of the kind which neatly divides the variance up and assigns parts to the different variables, we should not overlook easy ways to get at chunks of the problem.

But again, with respect to the future, I think that the issue is, "Is this past period indicative of the future period?" Now we know that we had a significant decline in the birth rate. We are actually educating fewer children in the public schools. I think we are educating no more — I'll make a safer statement — no more kids in the earlier grades than we have in recent years. In other words, we are not moving to higher levels of activity in terms of numbers of kids, and we are probably going to go through a phase when we have absolutely fewer children in school.

Automobile ownership — we are increasing the number of two car families and three car families and so forth. But I think it is safe to say that the rate of increase of ownership in the future is not likely to match the increases in the past. On garbage I am completely in the dark; I don't know what to expect there. But if you add it all up, there may be some grounds for expecting less sheer quantitative pressure, in terms of the size of the clientele, whether it be kids, cars, or garbage, on state and local expenditures.

A third factor that suggests itself to me, and I haven't seen anyone try to do it in any systematic way, is what I would call spatial adjustment. In other words, aside from the fact that we have increased our population dramatically in this period, and we have more of all of these objects of government spending, we have also had a very dramatic rearrangement of the scene in geographic terms — the city-suburban shift, the rural-urban shift. I just have the feeling — a very *a priori* type gut feeling — that somehow this rearrangement of the spatial distribution of the population must have had some net impact on capital expenditures in the state and local sector. Somehow we added schools not just to meet demand in simple terms, but because we were abandoning a school in one location and building a school in another location. And again I would ask whether we expect a similar amount of spatial adjustment in the future.

A fourth factor that I appeal to, which I have alluded to earlier with numbers, is the starvation of the local sector from probably 1929 through 1946. In some sense, just like consumer demand was starved during the war, we certainly deprived state and local spending of its normal claim on resources, first because of depression, second because of war. It could be that a lot that has happened in the last 20 years or 15 years again is in the nature of catching up, and may not have to be replicated in the years to come.

A final one that is on even thinner ice is the whole question of technical progress in the public sector. I don't know how much we have achieved in the last 10 or 15 years, but there may be some hope for a faster rate of progress in the future than we have had in the past. At least that is something to think about in terms of the plan.

When I add it all up, the kind of optimistic conclusion that I would like to come to — and maybe at some future conference I will be able to report this with greater confidence — is that we may be moving from quantity to quality pressure in the state and local sector. In other words, that with all the hoopla of the last 20 years,

we have been primarily preoccupied with the quantity job — more kids, more cars, more garbage, more welfare recipients — and have not really made that much progress, and maybe even retrogressed, in quality. If we can maintain the same level of effort, and maybe even increase it, in the next decade or two we may have some real opportunities to achieve quality progress in all these fields of state and local expenditures.

My final comment is a very modest attempt to link the first part of the paper with the second part. Harvey talked first about trying to explain the aggregate growth of state and local expenditures, and then about trying to enlighten cross-sectional differences. The bridge that may have to be built between the two is to look at differential rates of increase.

I think if we try to explain variations in expenditures at a moment in time between different parts of the country, we are taking on everything. We are taking on all the economics and all the politics of the local sector. We can admit we don't understand a lot of the politics, and a lot of the politics is responsible for different levels of expenditure. But let's at least look on the margin and see how expenditures behave in incremental terms. Is the rate of increase different in different parts of the country? Can we at least attack that in terms of some simple principles along the lines that I have suggested? Hopefully there is enough variation in the system, in terms of rates of population growth or perhaps some of these other factors that I have mentioned — spatial adjustment, the generation of kids, cars, and garbage and so forth — so that we might have an opportunity, by observing differential rates of increase within the country, to get a glimpse of what may be ahead for the country as a whole.

The Case for Broadening
the Financial Options Open to
State and Local Governments
— Part I

STANLEY S. SURREY

General Discussion

The exemption from income tax of the interest on state and local obligations remains a feature of our income tax despite the persistent publicizing through the years of its adverse effects on the equity of that tax.

The two main legislative efforts to alter the situation were in 1943 and 1969, and both failed. But the difference in approach that developed in the quarter-century separating these efforts is highly instructive. In 1943 the effort was a frontal one, simply to eliminate the exemption. In 1969 the focus of the effort was to find an alternative method of aiding state and local governments that would materially lessen the use of tax-exempt securities.

We thus have come to recognize the tax expenditure character of this exemption in its provision of Federal financial assistance through the tax system to state and local governments. The reliance of those governments on that assistance and their need for it is fully accepted. Any effort to alter that exemption in order to improve the equity of the tax system must therefore cope affirmatively and successfully with finding a replacement for the assistance if the effort is to be effective. The events of 1969 illuminate the difficulties this requirement presents.

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Inequity and Inefficiency of Tax Exemption

The criticisms of the exemption — both in terms of its effects on the tax system and its inefficiency as a method of furnishing the financial assistance — were recognized by the House Ways and Means Committee which initiated the effort in 1969 to change the situation:

> Capital outlays of state and local governments for such projects as schools and other public buildings, highways, water and sewage systems, and antipollution facilities have doubled during the past decade. In order to market an increasing volume of securities to finance these public projects in competition with a growing volume of private borrowings, state and local governments have been offering higher yields, and the differential between tax-exempt and taxable securities of comparable quality has been narrowing. Historically, the ratio of yields on tax-exempt issues to taxable issues has been as low as 60 percent, but in recent years it has been close to 75 percent.
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> The ratio of yields has varied in response to the general availability of credit, the demand for credit and the proportionate demand by state and local governments to the total market demand for credit. As a result, high volume individuals and institutions otherwise subject to high tax rates who constitute a major portion of the market for tax-exempt state and local securities have been receiving significantly larger tax benefits than needed to bring them into the market. Recent estimates place the annual saving in interest charges to state and local governments at $1.3 billion, but the annual revenue loss to the Federal Government has been estimated at $1.8 billion.[1]

On the tax equity side, the exemption permits upper bracket individuals and commercial banks to escape their share of the tax burden. While in a sense the bondholders could be considered as paying a "tax" to the state and local governments, in the form of lower interest rates, that "tax" allows them to avoid a far higher federal tax and the bondholders therefore are willing to enter on the exchange.

On the efficiency side — and this is another way of reflecting the tax inequity — the exemption gives less in aid to those governments in the form of lower interest rates than it costs the Federal Government in revenue — perhaps a 30 percent wastage. Moreover, it

[1]*Report* of the House Committee on Ways and Means, Tax Reform Act of 1969, House Rep. No. 91-413 (1969) p. 172-173. The estimates used by the Committee are the tax effects that would occur if outstanding bonds, at their present interest rates, were made taxable. A more appropriate measure is what would be the effects of the present system compared to the consequences under taxable bonds and the interest changes that such taxation would involve. Clearly the latter involves some guesswork. Under Treasury data, as of 1969, the revenue loss under the latter approach was estimated at $2.63 billion and the interest savings at $1.86 billion.

seems to many that, as the need for capital funds on the part of those governments appears to be inexorably becoming ever greater, the method of assistance, i.e., whatever lowering of interest rates the exemption could achieve, is equally as inexorably painting those governments into a corner. They are forced to sell more and more bonds to buyers who really are not the obvious buyers of those bonds but who are only tempted to do so because of the exemption. High bracket individuals normally should be basically buying equities and banks should be making business loans. To tempt them away from those natural pursuits into buying more and more tax-exempt bonds, and to seek to draw other individuals and financial institutions in the same direction, will require higher interest rates on the bonds to make the exemption worth more. At the same time, natural buyers of bonds, such as private pension trusts, state and local retirement funds, and educational and charitable institutions, are shut off by the tax exemption since, being tax-exempt themselves, the interest exemption is useless to them.[2]

While state and local governments sought in 1969 in debate and maneuver to deny or downgrade these problems, they also at times gave evidence of recognizing the difficulties that lie ahead.[3] Moreover, the Treasury Department and the Bureau of the Budget have clearly described those difficulties.[4] Thus, Undersecretary Walker stated in March, 1970:

> State and local borrowing demands are growing faster than the supply of long-term investment funds from investors in high income tax brackets. The price of this imbalance is reflected in the interest rate on tax-exempt bonds. The value of tax exemption to each borrower declines as the total volume of tax-exempts increases.
>
> Tax-exempt interest has at times been an effective means of revenue sharing — the investor pays the tax to the state or local borrower, by accepting a lower interest rate, rather than to the Federal Government. But the efficiency of this type of revenue sharing declines as borrowings increase and tax-exempt rates rise relative to taxable rates.

[2]See generally Surrey, "Federal Income Taxation of State and Local Government Obligations," 36 *Tax Policy*, May-June 1969; Healy, "The Assault on Tax-Exempt Bonds," 36 *Tax Policy*, July-August, 1969.

[3]See Healy, supra note 2, at p. 5-6.

[4]See Remarks of Hon. Charls E. Walker, Under Secretary of the Treasury, on "New Federalism in the 1970's — the Financial Dimension," before the Tenth Annual Washington Conference on Business-Government Relations, March 23, 1970; Remarks of Hon. Robert P. Mayo, Director of the Budget, before the Municipal Finance Forum of Washington on "The Federal Government and State and Local Finance," July 9, 1969.

Affirmative Aspects of the Exemption Device

At the same time, as these negative aspects of the exemption are steadily becoming more apparent, two affirmative aspects of the exemption device as a method of aiding state and local governments are very clearly being underscored. Those governments in the 1969 debate pointed out two essential attributes:

— The assistance provided by the exemption is freely available to them, for any project they choose, without any control being exercisable by the Federal Government.

— The assistance is open-ended as far as the Federal Government is concerned, since the assistance depends in this respect solely on the amount of obligations issued.

Thus, whatever may be the limitations imposed by the financial markets, bond ratings or the like, the exemption vis-a-vis the Federal Government has the effect of a blanket, automatic, no-strings attached, open-ended Federal grant-in-aid to the issuing governments. Governors and mayors are given blank checks' by the Treasury Department to fill in and return at their option. It is no source of wonder why those governors and mayors like these aspects of the tax expenditure exemption approach and seek to preserve it as a form of Federal aid. In the case of other grants-in-aid they come to Washington very much as supplicants or negotiators; the tax aid is theirs to command.

The House Ways and Means Committee in 1969 recognized this factor and sought to duplicate these attributes in its alternative for the exemption. It provided that if a state or local government *elected* to issue a *taxable* bond, the Treasury Department would be required to pay periodically to the issuing government, as interest payments fell due, from 30 percent to 40 percent of the interest payment (from 25 percent to 40 percent for bonds issued after 1974). It was understood when the bill passed the House that the percentage would be changed to a flat 40 percent. The Secretary of the Treasury was to proclaim the figure for each quarter and the percentage that was in effect when a bond was issued would be applicable throughout its life. There would be a permanent legislative appropriation to cover the cost of the subsidy, of the same character as the appropriation applicable to the interest on Federal bonds. The cost to the Treasury of the interest subsidy would be met by the revenues arising from the tax on the taxable bonds and other obligations that taxpayers would hold in place of exempt bonds. The payment of the

interest subsidy was to be automatic, with no Federal review of a bond — no inquiry as to the advisability of the project for which it was issued or the issuer's ability to pay.

In its essentials this alternative would seem to duplicate the affirmative attributes inherent in the tax exemption route. The alternative direct subsidy would also have been a blanket, automatic, no-strings attached, open-ended aid. But the alternative was never discussed on its merits.

A variety of pressures — the chaotic monetary situation in mid-1969; the influence of investment houses seeking to preserve their present business in tax-exempts and the dependence of state officials on political contributions from some of these sources; the lack of understanding of the House proposal in responsible state and local quarters; the attitude of the Administration, stretching from opposition to hands-off but not encompassing support or even full explanation of the proposal and the issues; the coverage under the minimum tax and the allocation of deductions proposals of interest on any future tax-exempt bond that might be issued, and of outstanding interest under the minimum tax — all combined to prompt a mass lobbying effort by state and local officials concentrated on the Senate Finance Committee.

The arguments and debating points used were erroneous or specious[5] but that quality did not detract from the effect of the massed character of the effort. The alternative simply disappeared under the attack. The Senate Finance Committee stated:

> The House report noted that tax savings for individuals and corporations from the purchase of tax-exempt bonds generally is greater than the differential between the interest yields on tax-exempts and taxable bonds. As a result, it has been estimated that the interest savings to state and local governments was $1.3 billion in 1968 but the tax revenue loss to the Federal government was $1.8 billion.
>
> While there may be a problem here, the committee, because of its concern that any action with respect to state and municipal bonds could have a deleterious effect on the market for these bonds, and because of the high interest costs which are now being paid on new issues of such bonds, concluded that any action possibly having an impact on state and local government bond prices would be particularly unfortunate. [6]

[5] See generally Surrey, "The Tax Treatment of State and Local Government Obligations — Some Further Observations," 36 *Tax Policy,* Sept.-Oct. 1969, pp. 8-15. But see Healy, "Further Comments on Proposed Capital Financing Alternatives," 37 *Tax Policy,* Jan.-Feb. 1970.

[6] *Report* of the Senate Committee on Finance, Tax Reform Act of 1969, Senate Rep. No. 91-552 (1969) p. 218.

But the problem remains. The difficulties state and local govern-
ments face in meeting their capital needs and the increasing limita-
tions of the tax expenditure type of assistance furnished by the
exemption are still evident. Studies indicate both the dependency of
the tax-exempt market on purchases by commercial banks and the
likelihood that in the decade ahead the economic environment will
be one in which commercial banks are not likely to be massive
buyers of state and local bonds. The adverse effect of the exemption
on tax equity — the indefensible escape from tax liability that it
permits — still persists. Moreover, these factors work perversely; the
more inefficient the tax exemption mechanism becomes as a method
of assistance as the interest rates rise on the exempt bonds the more
inequitable the exemption becomes as a part of the income tax. All
concerned appear to recognize these facts and to be seeking a
solution. Thus, the Treasury has said, speaking through Undersecre-
tary Walker:

> What then is the answer? I am confident it must be something other than
> making continued demands upon an overburdened tax-exempt market. We will be
> actively engaged in developing a more effective alternative to that approach
> during the coming months, and I would certainly welcome the thoughts and
> suggestions of state and local officials. To work together toward more effective
> solutions is just what the President's New Federalism is all about. All of us have a
> vital stake in coming up with workable solutions, so that the needed expansions in
> our public sector facilities can take place — and be financed in the most economic
> and efficient manner. [7]

Chairman Mills has said:

> A House provision granting state and local governments a subsidy if they
> voluntarily agree to issue taxable bonds was deleted by the Senate and the Senate
> conferees insisted on this deletion. I regret that the pending bill does not include
> this subsidy provision. In my opinion, it is a useful device which would provide
> considerable opportunity for a state and local government to expand the markets
> for their securities without involving additional cost to them. However, in view of
> the present chaotic state of the market for state and local bonds and the present
> psychology of investors, apparently any change in the area of state and local
> government was frowned upon even where the change tries to help state and local
> governments as was the case of the subsidy provision. Accordingly, we had no
> choice but to agree to the deletion of this provision. [8]

A prominent representative of state and local governments has
said:

[7] Supra note 4, at pp. 21-22

[8] Congressional Record, Dec. 23, 1969, H13037.

> Undoubtedly, the debate over tax exemption will continue for some time until some decisive action occurs to resolve the issue once and for all ... We are seriously considering new sources of supplemental funds but caution that too much is at stake to rush headlong into "solutions" that could only cause a new crop of problems. The real solution to the state and local financial crisis lies in fitting a number of pieces of a very complex problem together.[9]

The solution, it is clear, will have to provide Federal assistance on terms that resemble the affirmative attributes of the assistance available through the tax exemption. The solution therefore must permit freedom of choice by state and local governments as to both the use to which the aid money will be put and the quantity of aid available. The solution may also have to permit resumption of the issuance of tax-exempt bonds as a fallback if the solution turns out to be less useful than the exemption device.

This is not to say there is inherent logic in these requirements for a solution. Over 90 percent of the annual assistance now received by state and local governments from the Federal Government comes, through grants and other mechanisms, in ways that do not involve these attributes. There is no inherent reason why financing assistance to state and local governments to raise capital funds should be on a different basis. The answer instead lies in history and the attitude currently taken by these governments. Even though the tax exemption assistance works very inefficiently, in that there is a large wastage of the Federal revenue loss involved, it does produce some assistance to these governments compared to the alternative of loss of tax-exemption per se. And, apparently, the harmful effect of the tax exemption on the equity of the Federal income tax is not regarded by these governments as their worry or a reason for them to give up the assistance they now obtain, no matter how inefficient. Hence these governments are in a position to place requirements on alternative solutions. The realities of the situation are accepted by those seeking alternative solutions, as is evidenced by the Ways and Means Committee proposal. What remains unclear is whether the state and local governments will cling to the present system despite its great inefficiencies for them, regarding it as still better than simple taxability of their bonds, or will join in the search for alternative solutions.

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[9]See Healy, supra note 2, p. 12. Mr. Healy is Executive Vice President, National League of Cities.

More Effective Methods of Financial Assistance

The range of alternatives to be explored is considerable. It includes:

— an interest subsidy paid by the Treasury on taxable bonds issued by state and local governments, i.e., the alternative of the House Ways and Means Committee in 1969, with such improvements as further study may evolve and the use of such marketing techniques for the taxable bonds as may be appropriate as, for example, a State Development Bank which would issue its taxable obligations and in turn buy the obligations of the cities and other issuers in the State. A flat subsidy rate of 50 percent may be appropriate. At any event, in the light of the present scale of direct Federal aid to state and local governments, around $28 billion, there is little logic in restricting the interest subsidy on taxable bonds to a level which would represent a financial break-even point for the Treasury. It would seem preferable to set the direct subsidy on taxable issues at a level which would assure that the degree of wastage in the tax subsidy given by the Treasury through any remaining tax-exempt issues was held to a reasonably tolerable level. A 50 percent subsidy may be the minimum needed to accomplish this objective.

— a form of National or Urban Development Bank which would issue its own taxable bonds and in turn lend its funds to state and local governments at a subsidized interest rate. The Administration has already offered in several areas proposals which embody this approach. One is the proposed Environmental Financing Authority which would stand ready to purchase waste treatment bonds of state and local bodies already in receipt of Federal project grants, with the EFA financing these purchases by issuing its own taxable obligations.[10] Another is the proposal that conservation, water waste disposal and similar loans made to rural communities by the Farmers Home Administration and sold to private investors with a Federal Government guarantee should be regarded as taxable obligations with a portion of the interest then paid by the Federal Government.[11] As

[10]Budget Message of the President, Fiscal Year 1971, p. 31 (Congressional Record, Feb. 2, 1970, S968).

[11]H. R. 15979, House Rep. No. 91-1112. The House Ways and Means Committee Report states:

Studies by the Treasury Department and the Bureau of the Budget have indicated that it is costly to the Federal Government to use federally insured

a further example, the Medical Facilities Construction and Moderni-
zation Amendments Act of 1970 authorizes HEW to purchase
obligations of public hospitals and medical facilities and sell the
obligations on a guaranteed and taxable basis. HEW would pay an
interest subsidy to the public issuer of the obligation in an amount
necessary to bring the net interest cost to the public issuer down to
the level of the interest costs paid by private non-profit borrowers
subsidized under the Federal legislation in this area.[12] While Federal
control over the issuance of the state and local obligations would in
effect exist in these instances, that control is already present since
the projects involved for which the state and local funds are sought
must themselves obtain Federal approval in order to receive project
aid. The proposals in effect provide separate "development banks"
for the areas involved; the hospital proposal was described in Senate
debate as "a sort of public hospital urbank."[13]

— the proposal that state and local obligations where purchased
by state and local pension or other retirement funds should carry an

tax-exempt obligations to finance loans to local governmental units. The
studies indicate that while the tax exemption makes it possible to resell the
insured loans at a lower interest rate than would otherwise be possible, the loss
of tax revenue resulting from the exemption more than offsets the benefits of
the lower interest payments.

Additionally, it was concluded that the sale of bonds which are both tax
exempt and insured by the Federal Government would give these bonds a
competitive advantage over both State and local securities which are tax
exempt but not federally insured, and also Federal securities which are subject
to Federal income tax. As a result, the sale of such bonds could well have
increased interest rates on other bonds, particularly those issued by States and
localities and hampered their ability to finance other vital public needs . . . .

The proposed legislation will not increase interest rates to the local
communities involved in the federally insured loans since these communities
can continue to obtain loans at present law interest rates of not over 5
percent, which are below the current market rates on good quality, long-term,
tax-exempt bonds. Moreover, the bill does not in any way interfere with the
right of local governments to issue tax-exempt obligations.

[12]H.R. 11102, as amended in the Senate, Cong. Rec. April 7, 1970, S5237-5242. The
amendment replaced a provision under which the Treasury would have guaranteed tax
exempt bonds issued by public hospitals. The Treasury objected strongly to the original
provision as adding to the pressures on tax-exempt securities and as favoring one type of
tax-exempt bond over other types, thereby forcing the latter to move to higher interest
rates. See letter of Sec. Kennedy, Cong. Rec., April 7, 1970, S5239; remarks of
Under Secretary Walker, supra note 4, at p. 18-19. See also supra footnote 11. The Treasury
favored the amendment.

[13]Congressional Record, April 7, 1970, S5241.

interest rate competitive with taxable obligations, with a portion of the interest subsidized by the Federal Government. This is really a limited version of the 1969 approach. It is difficult to see, however, why only some buyers of state and local bonds should be so subsidized and others not so treated, so that this alternative is not as desirable as an across-the-board subsidy.

These alternatives do have one important difference from the present tax expenditure approach. Under that approach, neither its cost — the revenue lost by the exemption — nor the amount of assistance given appear in the Budget. Under the alternatives, the financial assistance, presumably through an interest subsidy, would show up in the Budget as a direct expenditure or in the accounts of a Development Bank. Naturally, over time this would be a sizeable figure. The representatives of state and local governments have observed this and have wondered if the growing cost would be tolerated by the Federal Government.

> "(It) would not be unreasonable for a Congressman or a budget director to question the rationale for continuing a very costly subsidy program ... It is also interesting to note that the present $1.86 billion savings from tax exemption is an amount substantially in excess of most congressional appropriations for urgently needed individual urban programs. From the hard cold logic of experience, city officials doubt that they would continue to receive from Congress a direct automatic unrestricted subsidy of the necessary magnitude for state and local bond issues. This is further borne out by the unhappy experience of local governments abroad whose capital projects depend upon the permission of the central government.[14]

Of course, the present tax expenditure assistance through the tax exemption is just as costly, perhaps even more so because of the wastage, but the cost is effectively hidden. This then really gets to the heart of the problem. A representative of state and local governments has said, "The core of this problem is the distrust of state and local officials of central government power, particularly when it is allied with the power of the purse string."[15]

The crucial question may well be whether the state and local governments place a large value on the hidden character of the present method of financial assistance, a value which offsets the limitations earlier described that are inherent in that assistance. This would be unfortunate, for it could block exploration of more

[14]See Healy, supra note 5, p. 8-9.

[15]See Healy, supra note 5, p. 10.

effective, though open, alternative methods of assistance outside of the tax system. It would also in the final analysis be unrealistic. For if the Constitution does not guarantee the tax exemption — and I believe most lawyers do not think that it does — then that exemption and method of aid are also subject to Federal control. As I said elsewhere:

> I wonder how many governors or mayors really believe the perpetuation of the present exemption is anything more than a legislative matter — how many would really settle for letting the Supreme Court decide the issue, winner take all?[16]

Indeed even apart from this aspect, since direct Federal grants are now far in excess of the assistance obtained from tax exemption — a ratio of around $28 billion to $2 billion annually — the states and localities must already place their faith in the rationality of the Congress for over 90 percent of the annual overall Federal assistance they now obtain. It does seem wrong to base solutions in the area of financing assistance to state and local governments on the assumption that the Congress, made up of elected representatives from the states, will act in bad faith to injure those states and their cities and localities.

It is to be hoped, therefore, that alternative methods are not to be discarded because of their openness. As a result, more effective methods of financial assistance could then be found which would at the same time permit a reform of the income tax that would materially lessen or end the inequitable effects of the present exemption.

In essence, it would appear that the tax-exemption device has been utilized to the full extent of its potentiality as a method of providing financial assistance to state and local governments. No more can be gained [by them] for further exploitation of this approach. At this juncture, therefore, the task becomes that of broadening the financial options open to state and local governments in raising capital funds. Such a broadening of financial options can only be helpful to those governments. It would also improve the equity of the Federal tax system. Thus, whether one approaches the situation from the aspect of Federal tax reform or from the aspect of improving the financial position of state and local governments, the end result would be of benefit to all governments.

[16]See Surrey, supra note 5, p. 10.

The Case for Broadening the Financial Options Open to State and Local Governments — Part II

FRANK E. MORRIS

The "Efficiency Index"

Institutions are usually not reformed until they have ceased to perform effectively. At this point, we propose to turn to an examination of the past performance of the tax-exempt bond market with the objective of establishing a basis for judging the adequacy of the tax-exempt market as the sole financing vehicle for state and local governments in the decade ahead.

We have developed two standards for measuring the performance of the tax-exempt market in the postwar years. The first of these measures is labeled the "efficiency index". The market is defined to be operating at 100 percent efficiency, in the terms of this index, when all of the benefits of tax-exemption accrue to the issuing state and local governments. Supporters of tax-exemption like to say that the tax equity argument is greatly exaggerated; since the bond investor pays his taxes at the time when he decides to accept a lower yield than he would accept on a similar taxable bond. The problem is, of course, that in the current market their marginal tax rate is only 20 percent. Their claim to have paid their taxes would be literally true only if tax-exempt bonds are so scarce that they are of interest only to investors in the highest individual tax bracket and are offered at rates which would give this class of investor the same

after-tax yield as comparable taxable bonds. This most improbable situation we would define as a condition of 100 percent efficiency for the tax-exempt market. With the present set of tax rates and corporate bond yields, it would mean a yield on municipal bonds of about 2¼ percent. From the standpoint of the U. S. Treasury, in a condition of 100 percent efficiency, there would be no tax equity problem as far as new issues were concerned and no wastage of the subsidy given through tax-exemption.

Just as we define 100 percent efficiency as a situation in which all of the benefits of tax-exemption accrue to the issuer, we similarly define a condition of zero efficiency as one in which all of the benefits of tax-exemption accrue to the buyer of the security. In this equally improbable situation a tax-exempt buyer, such as a pension fund, would find that municipal bonds were offering a comparable yield to similar corporate bonds. Any tax-paying investor would find all of the benefits of tax-exemption accruing to him.

The two end points of the scale, 100 percent efficiency and zero efficiency, are equally improbable, but they do provide us with a constant scale for measuring the changing efficiency level of the tax-exempt market over a period of years.

The calculated efficiency level of the municipal bond market from 1945 to date is shown on the accompanying chart. In computing the figures we have made an allowance for the fact that municipal bonds, in general, are less liquid than corporate bonds. We have assumed that an equating yield would be one in which the yield on a municipal bond was 104 percent of the comparable corporate yield.

In our zero efficiency case, for example, if the corporate yield were 8 percent, the corresponding municipal yield would be 8.32 percent. The 4 percent liquidity adjustment is purely a judgment estimate on our part. We would need an actual market test to determine the precise differential, but we have little doubt that a taxable municipal, in the typical instance, would have to bear a somewhat higher yield than a correspondingly rated corporate bond.

There is no inherent reason why municipal bonds must be less liquid than corporate bonds. The source of the liquidity problem is purely institutional and relates almost entirely to the size of the bond issue. Corporate bonds typically are sold in large amounts with single maturities. Municipal bonds are customarily sold in small amounts with serial maturities.

The typical municipal issue is $10 to $20 million in aggregate amount split up into 20 serial maturities. This means that there are actually 20 different maturities of $500,000 to $1,000,000 in size. It is a physical impossibility to maintain an adequate secondary market for bond issues of that size. A liquidity differential could only be eliminated by consolidating the many small serial offerings into many fewer and much larger issues of centralized issuing authorities either at the state level, the Federal level or both.

Volatility of Commercial Bank Participation

Anyone examining the performance of the municipal bond market must be struck by its extreme dependence on the commercial banks as investors. There are only two major classes of municipal bond buyers — commercial banks and high-bracket individual investors. Between them they held almost 77 percent of the outstanding total of municipal bonds at the end of 1969, with more than 46 percent held by banks and somewhat over 30 percent by individuals.[1]

The basic vulnerability of the municipal bond market lies in the fact that the extent of commercial bank participation is highly volatile. Most banks tend to look upon municipal bonds as a good source of earning power for marginal funds; that is for funds remaining after their loan demand has been satisfied and their minimum liquidity requirements have been met. Loans have the prime investment priority; and when funds get tight, bankers adjust by reducing the flow of funds into securities, both U. S. Government and state and local government securities.

The extent of the swings in bank participation in the municipal bond market may be seen in the following figures. Of the total increase in state and local government bonds outstanding in the relatively easy money year of 1965, the commercial banks absorbed 70 percent. This figure dropped to 41 percent in the tight money year of 1966. When the pressures on the banks moderated in 1967, the figure rose to 116 percent, the banks in that year buying substantially more than the total incremental supply. Their participation dropped slightly in 1968 to 92 percent and then collapsed to less than 17 percent in the very tight money year of 1969.

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[1] All of the statistics in this paper relating to the ownership of municipal bonds are taken from the Flow of Funds Accounts published by the Board of Governors of the Federal Reserve System.

When the banks pull out of the market, rates must rise sharply enough to induce the other major buyer, high-bracket individuals, to take up the residual supply. The market is isolated by tax-exemption from the great bond buying potential of the pension funds. These structural characteristics have made the municipal bond market more volatile than the other bond markets, they have produced strong contra-cyclical swings in the volume of state and local bond offerings and, in our judgment, they have rendered state and local investment programs much more sensitive to monetary policy than would have been the case if these issuers had a broader market in which to sell their securities.

Turning to the efficiency index, we find that the index reached its highest point in early 1946 at 59 percent. This peak level for the index primarily reflected the scarcity of supply of municipal bonds following the Great Depression and World War II. After 1946, state and local governments began to issue bonds in substantial volume again, and the efficiency index trended irregularly downward, reaching a low point for the postwar period of 18 percent during the tight money phase of mid-1953.

During the first seven years of the postwar period, 1946 through 1952, the average level of the efficiency index was about 37 percent and bank participation in the market was of moderate proportions. Banks absorbed a net amount of municipals during this period equal to about 43 percent of the increase in the amount outstanding.

The next eight years, 1953 through 1960, were years of a relatively restrictive monetary policy; commercial bank deposits grew slowly, bank participation in the municipal market declined (they absorbed only 18 percent of the incremental amount of bonds), and the efficiency index dropped from the 37 percent average of the earlier period to an average level of 26 percent.

The next eight-year period, 1961-1968, was one in which the performance of the municipal bond market improved substantially. The Federal Reserve was following an expansionary policy during most of this period, bank assets were growing rapidly, and, except for a brief period in 1966, commercial banks dominated the municipal bond market to an unprecedented degree, absorbing almost 80 percent of the total incremental supply. At the end of 1960, banks owned only about 25 percent of the total of outstanding municipal bonds; by the end of 1968 this percentage had almost doubled to 48 percent. The efficiency index moved up sharply,

averaging 40 percent for the entire eight-year period and reaching a peak of 51 percent in early 1967.

The Indifference Index

Since the commercial banks play such a dominant role in the municipal bond market, another useful measure of the efficiency of the market is an index which describes the current level of municipal bond yields as a percentage of the indifference level for commercial banks relative to corporate bonds.

Given the prevailing marginal tax rate for banks, the indifference level of municipal bond yields would be that level at which banks should be indifferent as between purchasing a municipal bond or a correspondingly rated corporate bond. This index is also shown on the accompanying chart. By and large, it traces essentially the same pattern for the postwar years as the efficiency index, although in an inverse fashion.

In 1945 and 1946 the prevailing yields on municipal bonds were so low that they were not attractive alternatives to corporate bonds for commercial banks. As the new supply of municipal bonds came into the market, however, the indifference index moved sharply upward, reaching a peak of 174 percent in July 1953.

From that point through the end of 1961, the bank indifference index fluctuated between 150 percent and 170 percent. It trended downward thereafter until 1967, reaching a low point in early 1967 at an index level of 124 percent. Since early 1968 it has been moving upward and established a postwar peak level of 175 percent in December 1969. There are many influences operating on the municipal bond market, but the influence of the commercial banks is so dominant that one could gauge the state of the market very accurately with this simple measure — the size of the gap between the indifference rate and the market rate.

Dependence on Commercial Bank Participation

We think that this statistical analysis of the past supports the generalization that the performance of the municipal bond market in the 1970's will depend almost entirely, as it has in the past, on the degree of commercial bank participation in the market. Will the 1970's be a period, such as 1961 through 1968, when the commercial banks were able to absorb almost 80 percent of the incremental

supply and the market operated at a 40 percent efficiency level? Or will it be more like the 1953-61 period, when the commercial banks were in a relatively tight position, when they absorbed less than 20 percent of the incremental supply and when, as a consequence, the municipal bond market operated at an average efficiency level of only 26 percent?

We think most economists and most bankers who have thought about the problem would argue that the latter alternative is by far the more probable. We are not given the power to see very far into the future with any kind of precision, but on the basis of what we know today, it seems most probable that the decade of the 1970's will be characterized by strong expansionary forces. This would seem to be dictated, in part, by the dynamics of our population change, in part, by the urgent need to rebuild our cities, and, in part, by our commitment to high levels of employment.

We will need a rapid growth rate and a high level of business investment if we are to avoid high levels of unemployment, since the labor force will be growing at an unprecedented rate over the next decade. The burgeoning young adult population of the United States, which is the primary cause of the rapid growth expected in the labor force, will, in their capacity as consumers, be demanders of vast amounts of capital for housing and consumer durable goods, while making only a relatively modest contribution to the flow of savings. As a consequence, most economists expect that the decade of the 70's will be a period of a chronic excess demand for capital.

This is not the sort of environment in which the municipal bond market functions well, simply because it is an environment in which commercial banks are not likely to be massive buyers of municipal bonds. Not only is loan demand likely to be too high to permit this, but there is, in addition, an urgent need in the banking system to rebuild liquidity. Our banking system has not been as illiquid as it is today since 1929; and bankers learned in 1966 and again in 1969, many to their dismay, that municipal bonds are not liquid instruments.

Of course, it is theoretically possible to shift the mix of public policies which prevailed in the 1960's toward a much more restrictive fiscal policy so that an expansionary economy could be kept in bounds with a less restrictive monetary policy. This is a mix which would be much more favorable to the municipal bond market.

Unfortunately, there is nothing in our recent experience which

would lead one to expect such a change in the policy mix. If this analysis is correct, state and local governments are likely to be facing, in the 1970's, capital requirements of a magnitude which their traditional financing vehicle, the tax-exempt bond market, is not likely to be able to handle in any reasonably efficient manner.

This is not a unique judgment on our part; it has been voiced privately by a number of leading New England bankers and it was recently voiced in public by a leading New York bank economist, Tilford Gaines. Mr. Gaines, Vice President of the Manufacturers Hanover Trust Company, made the following statement before a recent meeting sponsored by The National Industrial Conference Board.[2]

> "It seems quite unlikely that the banking industry will be able to underwrite as large a part of tax-exempt bond financing as they did during the 1960's. Other demands upon their limited resources, and the constraints imposed by conservative balance sheet considerations, probably will continue to limit bank acquisitions of tax-exempt bonds as they did last year. This prospect raises quite troubling questions for local financing. Ultimately, the question will have to be confronted as to whether or not tax-exemption of local securities does not so limit their market as to suggest the adoption of financing through other, perhaps taxable obligations. . . . Other innovations might very well be subjects of discussion as the full magnitude of the shortage of funds available for tax-exempt local financing becomes more apparent."

State and Local Governments' Need for Financial Options

State and local governments are, in our judgment, urgently in need of some long-term financing options in addition to the traditional tax-exempt market. The primary factor which gives the large business corporations in the United States such great financial flexibility is the multiplicity of their financial options. If a large corporation finds that its commercial bank is short of funds and unreceptive to its financial needs, it can turn to the commercial paper market or the bond market, it can issue common stock, convertible debentures, debentures or preferred stock with warrants; and the larger ones even have the capacity to finance some of their requirements in foreign markets.

In contrast, the options open to state and local governments are extremely limited. If the municipal bond market is unreceptive, state and local governments have only the options of financing through

[2]The National Industrial Conference Board's West Coast Financial Conference, Century Plaza Hotel, Los Angeles, California, April 29, 1970.

short-term notes or postponing the project. The short-term note market is a rather limited option, not only because of legal restrictions, but also because the principal market for short-term notes is the very same commercial banking system which constitutes the key element in the market for municipal bonds.

Federal Interest Subsidy

Specifically, we would propose that two additional major financial options be opened to state and local governments: the first would be an option to sell taxable bonds with a 50 percent Federal interest subsidy; the second would be an Urbank option, along the lines to be discussed by Peter Lewis at this conference, which would be designed to accommodate the more marginal issues.

The only thing wrong with the interest subsidy proposed in the House bill of 1969, in our judgment, was that it was too small. Instead of the variable subsidy of 25 percent to 40 percent of interest costs which the House bill provided, the bill should have proposed, in our judgment, a flat subsidy of at least 50 percent; for a subsidy of at least 50 percent is the minimum needed to assure that only those tax-exempt issues will be marketed which will represent a tolerable use of the subsidy granted in the form of tax-exemption. This action would tend to confine purchase of future tax-exempt issues to very high bracket individuals, since the issues would not be particularly attractive to any others.

In the market of May 1970 (on the basis of our efficiency index calculations) with a 50 percent interest subsidy on taxable issues, any tax-exempt issue marketed would be of only marginal interest to banks or other corporations and would be of interest only to individuals in marginal tax brackets above 50 percent. In a market such as we had this May, a 50 percent interest subsidy would curtail the supply of new issues to the extent that the Bond Buyer's Index would drop to about 4.30 percent. At that level of market rates on municipal bonds, both the tax equity problem and the wastage involved in the present form of subsidy through tax-exemption would be substantially reduced and the efficiency index would rise to 54 percent. Of course, if the interest subsidy were 60 percent, the supply of newly issued tax-exempt bonds would contract even further; and in the market of May 1970 the Bond Buyer's Index would drop to about 3.40 percent and the efficiency index would rise to around 82 percent.

In approaching the determination of the precise amount of interest subsidy to be granted on taxable issues of state and local governments, the Congress gave a degree of weight to the break-even point for the Treasury which seems to us to be all out of perspective. After all, the Budget proposed by the President for fiscal 1971 calls for the massive total of $27.6 billion in grants and aid to state and local governments. This is an increase of $7.4 billion, or more than 36 percent, from the actual figure for fiscal 1969 — just two years ago.

In the light of this scale of aid to state and local governments and the very high probability that it will grow substantially in the future, there seems to be little logic in restricting the interest subsidy on taxable bonds to a level which would represent a financial break-even point for the Treasury. It would seem more logical to us to set the subsidy on taxable issues at a level which would assure that the degree of wastage in the subsidy given by the Treasury through tax-exemption was held down to a reasonably tolerable level. A 50 percent subsidy would be the minimum needed to accomplish this objective.

If state and local governments had at their command the three long-term financing options which we have discussed — the tax-exempt bond market, the new taxable bond market which would be oriented primarily toward pension fund investors, and the Urbank — the typical financing procedure would be for a state or local government to ask underwriters for bids on both a taxable and a non-taxable basis, or some combination of the two.

In addition, if the project is eligible for Urbank financing, that option could also be entered into the calculations, with the state or local government accepting the option which offers the lowest interest cost. With this sort of financial flexibility, state and local governments ought to be able to obtain an adequate share of the national credit pool in the 1970's. In the process, they are likely to find that, with their dependence on commercial banks greatly reduced, state and local governments will be much less vulnerable to cyclical tides in the availability of money than they have been in the past.

In our judgment, barring a radical change in the mix of fiscal and monetary policies, the present, very narrow municipal bond market will only serve state and local governments tolerably well in the 70's if, contrary to expectations, the decade turns out to be one of chronic economic stagnation. Unfortunately for state and local

governments, at least in their capacity as sellers of bonds, this is not the sort of economic outlook for the 1970's to which many economists would attribute a very high probability — and it is not the sort of outlook that the American people or their political leaders are likely to accept.

Efficiency Index   EFFICIENCY INDEX*

*The "Efficiency Index" would have a value of 100 if the market rate on municipals equals the indifference rate for individuals in the highest tax bracket, and it would have a value of zero if the market rate on municipals equals the indifference rate for tax-exempt institutions, otherwise the index would take a value between zero and 100.

MARKET RATE ON MUNICIPAL BONDS AS PER CENT OF INDIFFERENCE RATE** FOR COMMERCIAL BANKS
Percent   1945 - 1958

*The interest rate on municipal bonds that should make a commercial bank subject to the highest marginal tax rate indifferent between a corporate bond and a municipal bond of equal quality.

Calculations done by Research Department, Federal Reserve Bank of Boston, based upon Bond Buyer Index, Moody's Index of Aa Corporate Bonds and maximum tax rates for individuals and corporations.

Prepared by: Charting Section, Research Department, Federal Reserve Bank of Boston

Efficiency Index   EFFICIENCY INDEX[*]
                                            1959 - 1970

[*]The "Efficiency Index" would have a value of 100 if the market rate on
municipals equals the indifference rate for individuals in the highest tax
bracket, and it would have a value of zero if the market rate on munici-
pals equals the indifference rate for tax-exempt institutions, otherwise
the index would take a value between zero and 100.

Latest Data: May 1970

MARKET RATE ON MUNICIPAL BONDS AS PER CENT OF INDIFFERENCE RATE[**]FOR COMMERCIAL BANKS
Percent   1959 - 1970

[*]The interest rate on municipal bonds that should make a commercial bank
subject to the highest marginal tax rate indifferent between a corporate
bond and a municipal bond of equal quality.

Latest Data: May 1970

Calculations done by Research Department, Federal Reserve Bank of Boston, based
upon Bond Buyer Index, Moody's Index of Aa Corporate Bonds and maximum tax
rates for individuals and corporations.

Prepared by: Charting Section, Research Department, Federal Reserve Bank of Boston

Date	Bond Yield Indexes		Highest Marginal Tax Rates		Indifference Rates for			Efficiency Index	Market Rate as % of Indifference Rate for Commercial Banks
	Municipals	Corporates	Individuals	Corporations	Highest Tax Bracket		Tax-Exempt Institutions		
					Individuals	Corporations			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1945									
Jan.	1.62%	2.76%	.94	.38	.17%	1.80%	2.87%	46%	90%
Feb.	1.53	2.73	.94	.38	.17	1.76	2.84	49	87
Mar.	1.46	2.72	.94	.38	.17	1.75	2.83	52	83
Apr.	1.38	2.73	.94	.38	.17	1.76	2.84	55	78
May	1.35	2.72	.94	.38	.17	1.75	2.83	56	77
June	1.43	2.69	.94	.38	.17	1.73	2.80	52	83
July	1.40	2.68	.94	.38	.17	1.73	2.79	53	81
Aug.	1.46	2.70	.94	.38	.17	1.74	2.81	51	84
Sep.	1.64	2.70	.94	.38	.17	1.74	2.81	44	94
Oct.	1.72	2.70	.94	.38	.17	1.74	2.81	41	99
Nov.	1.56	2.68	.94	.38	.17	1.73	2.79	47	90
Dec.	1.51	2.68	.94	.38	.17	1.73	2.79	49	87
1946									
Jan.	1.34	2.62	.8645	.38	.37	1.69	2.72	59	79
Feb.	1.30	2.56	.8645	.38	.36	1.65	2.66	59	78
Mar.	1.29	2.54	.8645	.38	.36	1.64	2.64	59	78
Apr.	1.30	2.56	.8645	.38	.36	1.65	2.66	59	78
May	1.37	2.58	.8645	.38	.36	1.66	2.68	56	82
June	1.39	2.59	.8645	.38	.36	1.67	2.69	56	83
July	1.47	2.59	.8645	.38	.36	1.67	2.69	52	88
Aug.	1.54	2.62	.8645	.38	.37	1.69	2.72	50	91
Sep.	1.65	2.68	.8645	.38	.38	1.73	2.79	47	95
Oct.	1.71	2.70	.8645	.38	.38	1.74	2.81	45	98
Nov.	1.69	2.69	.8645	.38	.38	1.73	2.80	46	97
Dec.	1.90	2.69	.8645	.38	.38	1.73	2.80	37	109
1947									
Jan.	1.81	2.65	.8645	.38	.37	1.71	2.76	40	105
Feb.	1.90	2.64	.8645	.38	.37	1.70	2.75	36	111
Mar.	1.95	2.64	.8645	.38	.37	1.70	2.75	34	114
Apr.	1.90	2.63	.8645	.38	.37	1.70	2.74	35	111
May	1.85	2.63	.8645	.38	.37	1.70	2.74	38	108
June	1.83	2.64	.8645	.38	.37	1.70	2.75	39	107
July	1.81	2.64	.8645	.38	.37	1.70	2.75	39	106
Aug.	1.83	2.64	.8645	.38	.37	1.70	2.75	39	107
Sep.	1.82	2.69	.8645	.38	.38	1.73	2.80	40	105
Oct.	1.90	2.79	.8645	.38	.39	1.80	2.90	40	105
Nov.	2.06	2.85	.8645	.38	.40	1.84	2.96	35	111
Dec.	2.24	2.94	.8645	.38	.41	1.90	3.06	31	117

PERFORMANCE MEASURES OF THE MUNICIPAL BOND MARKET, 1945-70

Date	Bond Yield Indexes		Highest Marginal Tax Rates		Indifference Rates for		Tax-Exempt Institutions	Efficiency Index	Market Rate as % of Indifference Rate for Commercial Banks
					Highest Tax Bracket				
	Municipals	Corporates	Individuals	Corporations	Individuals	Corporations			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1948									
Jan.	2.37%	2.94%	.821275	.38	.55%	1.90%	3.06%	27%	124%
Feb.	2.47	2.93	.821275	.38	.54	1.89	3.05	23	130
Mar.	2.45	2.90	.821275	.38	.54	1.87	3.02	23	131
Apr.	2.37	2.87	.821275	.38	.53	1.85	2.98	25	128
May	2.31	2.86	.821275	.38	.53	1.84	2.97	27	125
June	2.24	2.85	.821275	.38	.53	1.84	2.96	30	121
July	2.27	2.89	.821275	.38	.54	1.86	3.01	30	122
Aug.	2.37	2.94	.821275	.38	.55	1.90	3.06	27	124
Sep.	2.41	2.93	.821275	.38	.54	1.89	3.05	25	127
Oct.	2.42	2.94	.821275	.38	.55	1.90	3.06	25	127
Nov.	2.38	2.92	.821275	.38	.54	1.88	3.04	26	126
Dec.	2.26	2.88	.821275	.38	.54	1.86	3.00	30	121
1949									
Jan.	2.16	2.81	.821275	.38	.52	1.81	2.92	32	119
Feb.	2.20	2.80	.821275	.38	.52	1.81	2.91	30	121
Mar.	2.18	2.79	.821275	.38	.52	1.80	2.90	30	121
Apr.	2.15	2.79	.821275	.38	.52	1.80	2.90	32	119
May	2.14	2.78	.821275	.38	.52	1.79	2.89	32	119
June	2.20	2.78	.821275	.38	.52	1.79	2.89	29	122
July	2.16	2.75	.821275	.38	.51	1.77	2.86	30	122
Aug.	2.12	2.71	.821275	.38	.50	1.75	2.82	30	121
Sep.	2.14	2.69	.821275	.38	.50	1.73	2.80	29	123
Oct.	2.16	2.70	.821275	.38	.50	1.74	2.81	28	124
Nov.	2.12	2.68	.821275	.38	.50	1.72	2.79	29	123
Dec.	2.09	2.67	.821275	.38	.50	1.72	2.78	30	121
1950									
Jan.	2.06	2.65	.84357	.42	.43	1.60	2.76	30	128
Feb.	2.03	2.65	.84357	.42	.43	1.60	2.76	31	126
Mar.	2.01	2.66	.84357	.42	.43	1.60	2.77	32	125
Apr.	2.03	2.66	.84357	.42	.43	1.60	2.77	32	126
May	2.00	2.69	.84357	.42	.44	1.62	2.80	34	123
June	1.99	2.69	.84357	.42	.44	1.62	2.80	34	122
July	2.01	2.72	.84357	.42	.44	1.64	2.83	34	122
Aug.	1.83	2.67	.84357	.42	.43	1.61	2.78	40	113
Sep.	1.84	2.71	.84357	.42	.44	1.63	2.82	41	112
Oct.	1.79	2.72	.84357	.42	.44	1.64	2.83	44	109
Nov.	1.74	2.72	.84357	.42	.44	1.64	2.83	46	106
Dec.	1.72	2.72	.84357	.42	.44	1.64	2.83	46	104

Date	Bond Yield Indexes		Highest Marginal Tax Rates		Indifference Rates for			Efficiency Index	Market Rate as % of Indifference Rate for Commercial Banks
	Municipals	Corporates	Individuals	Corporations	Highest Tax Bracket		Tax-Exempt Institutions		
					Individuals	Corporations			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1951									
Jan.	1.61%	2.71%	.91	.5075	.25%	1.39%	2.82%	47%	115%
Feb.	1.59	2.71	.91	.5075	.25	1.39	2.82	48	114
Mar.	1.74	2.82	.91	.5075	.26	1.44	2.93	45	120
Apr.	1.95	2.93	.91	.5075	.27	1.50	3.05	40	130
May	2.00	2.93	.91	.5075	.27	1.50	3.05	38	133
June	2.19	2.99	.91	.5075	.28	1.53	3.11	33	143
July	2.15	2.99	.91	.5075	.28	1.53	3.11	34	140
Aug.	2.02	2.92	.91	.5075	.27	1.50	3.04	37	134
Sep.	2.01	2.88	.91	.5075	.27	1.48	3.00	36	135
Oct.	2.06	2.93	.91	.5075	.27	1.50	3.05	36	137
Nov.	2.05	3.02	.91	.5075	.28	1.55	3.14	38	132
Dec.	2.09	3.06	.91	.5075	.29	1.57	3.18	38	133
1952									
Jan.	2.09	3.05	.92	.52	.25	1.52	3.17	37	137
Feb.	2.07	3.01	.92	.52	.25	1.50	3.13	37	138
Mar.	2.09	3.03	.92	.52	.25	1.51	3.15	37	138
Apr.	2.04	3.01	.92	.52	.25	1.50	3.13	38	136
May	2.06	3.00	.92	.52	.25	1.50	3.12	37	137
June	2.13	3.03	.92	.52	.25	1.51	3.15	35	141
July	2.15	3.04	.92	.52	.25	1.52	3.16	35	141
Aug.	2.24	3.06	.92	.52	.25	1.53	3.18	32	146
Sep.	2.31	3.07	.92	.52	.26	1.53	3.19	30	150
Oct.	2.38	3.08	.92	.52	.26	1.54	3.20	28	154
Nov.	2.38	3.06	.92	.52	.25	1.53	3.18	27	155
Dec.	2.38	3.05	.92	.52	.25	1.52	3.17	27	156
1953									
Jan.	2.43	3.09	.92	.52	.26	1.54	3.21	26	157
Feb.	2.55	3.14	.92	.52	.26	1.57	3.27	24	162
Mar.	2.65	3.13	.92	.52	.26	1.56	3.26	20	169
Apr.	2.65	3.29	.92	.52	.27	1.64	3.42	24	161
May	2.78	3.41	.92	.52	.28	1.70	3.55	24	165
June	2.99	3.50	.92	.52	.29	1.75	3.64	19	170
July	2.98	3.42	.92	.52	.28	1.71	3.56	18	174
Aug.	2.91	3.39	.92	.52	.28	1.69	3.53	19	172
Sep.	2.90	3.43	.92	.52	.29	1.71	3.57	20	169
Oct.	2.75	3.33	.92	.52	.28	1.66	3.46	22	165
Nov.	2.62	3.27	.92	.52	.27	1.63	3.40	25	160
Dec.	2.60	3.28	.92	.52	.27	1.64	3.41	26	158

PERFORMANCE MEASURES OF THE MUNICIPAL BOND MARKET, 1945-70

Date	Bond Yield Indexes		Highest Marginal Tax Rates		Indifference Rates for Highest Tax Bracket		Tax-Exempt Institutions	Efficiency Index	Market Rate as % of Indifference Rate for Commercial Banks
	Municipals	Corporates	Individuals	Corporations	Individuals	Corporations			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1954									
Jan.	2.50%	3.22%	.91	.52	.30%	1.61%	3.35%	28%	155%
Feb.	2.42	3.12	.91	.52	.29	1.56	3.24	28	155
Mar.	2.40	3.03	.91	.52	.28	1.51	3.15	26	158
Apr.	2.47	3.00	.91	.52	.28	1.50	3.12	23	164
May	2.50	3.03	.91	.52	.28	1.51	3.15	23	165
June	2.48	3.06	.91	.52	.29	1.53	3.18	24	162
July	2.32	3.04	.91	.52	.28	1.52	3.16	29	152
Aug.	2.26	3.03	.91	.52	.28	1.51	3.15	31	149
Sep.	2.31	3.04	.91	.52	.28	1.52	3.16	30	151
Oct.	2.34	3.04	.91	.52	.28	1.52	3.16	28	153
Nov.	2.32	3.04	.91	.52	.28	1.52	3.16	29	152
Dec.	2.36	3.04	.91	.52	.28	1.52	3.16	28	155
1955									
Jan.	2.40	3.06	.91	.52	.29	1.53	3.18	27	156
Feb.	2.44	3.10	.91	.52	.29	1.55	3.22	27	157
Mar.	2.44	3.13	.91	.52	.29	1.56	3.26	28	156
Apr.	2.41	3.13	.91	.52	.29	1.56	3.26	29	154
May	2.38	3.15	.91	.52	.29	1.57	3.28	30	151
June	2.41	3.14	.91	.52	.29	1.57	3.27	29	153
July	2.54	3.14	.91	.52	.29	1.57	3.27	24	161
Aug.	2.60	3.20	.91	.52	.30	1.60	3.33	24	162
Sep.	2.58	3.22	.91	.52	.30	1.61	3.35	25	160
Oct.	2.51	3.19	.91	.52	.30	1.59	3.32	27	157
Nov.	2.46	3.18	.91	.52	.30	1.59	3.31	28	154
Dec.	2.57	3.22	.91	.52	.30	1.61	3.35	26	159
1956									
Jan.	2.51	3.19	.91	.52	.30	1.59	3.32	27	158
Feb.	2.44	3.16	.91	.52	.30	1.58	3.29	28	154
Mar.	2.57	3.13	.91	.52	.29	1.56	3.26	23	165
Apr.	2.71	3.30	.91	.52	.31	1.65	3.43	23	164
May	2.68	3.34	.91	.52	.31	1.67	3.47	25	160
June	2.55	3.35	.91	.52	.31	1.67	3.48	29	153
July	2.65	3.39	.91	.52	.32	1.70	3.53	27	156
Aug.	2.80	3.50	.91	.52	.33	1.75	3.64	25	160
Sep.	2.94	3.63	.91	.52	.34	1.81	3.78	24	162
Oct.	2.95	3.69	.91	.52	.35	1.84	3.84	26	160
Nov.	3.16	3.76	.91	.52	.35	1.88	3.91	21	168
Dec.	3.22	3.85	.91	.52	.36	1.92	4.00	21	168

Date	Bond Yield Indexes		Highest Marginal Tax Rates		Indifference Rates for			Efficiency Index	Market Rate as % of Indifference Rate for Commercial Banks
					Highest Tax Bracket		Tax-Exempt Institutions		
	Municipals	Corporates	Individuals	Corporations	Individuals	Corporations			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1957									
Jan.	3.18%	3.89%	.91	.52	.36%	1.94%	4.05%	24%	163%
Feb.	3.01	3.83	.91	.52	.36	1.91	3.98	27	157
Mar.	3.10	3.80	.91	.52	.36	1.90	3.95	24	163
Apr.	3.13	3.79	.91	.52	.35	1.89	3.94	23	165
May	3.27	3.83	.91	.52	.36	1.91	3.98	20	171
June	3.41	3.98	.91	.52	.37	1.99	4.14	19	171
July	3.40	4.10	.91	.52	.38	2.04	4.26	22	166
Aug.	3.54	4.21	.91	.52	.39	2.10	4.38	21	168
Sep.	3.54	4.26	.91	.52	.40	2.13	4.43	22	166
Oct.	3.42	4.28	.91	.52	.40	2.14	4.45	25	159
Nov.	3.37	4.29	.91	.52	.40	2.14	4.46	27	157
Dec.	3.04	4.08	.91	.52	.38	2.04	4.24	31	149
1958									
Jan.	2.91	3.81	.91	.52	.36	1.90	3.96	29	155
Feb.	3.02	3.77	.91	.52	.35	1.88	3.92	25	161
Mar.	3.07	3.78	.91	.52	.35	1.89	3.93	24	162
Apr.	2.97	3.78	.91	.52	.35	1.89	3.93	27	157
May	2.92	3.78	.91	.52	.35	1.89	3.93	28	154
June	2.97	3.78	.91	.52	.35	1.89	3.93	27	157
July	3.09	3.83	.91	.52	.36	1.91	3.98	25	161
Aug.	3.36	3.98	.91	.52	.37	1.99	4.14	21	168
Sep.	3.54	4.20	.91	.52	.39	2.10	4.37	21	168
Oct.	3.45	4.21	.91	.52	.39	2.10	4.38	23	164
Nov.	3.32	4.21	.91	.52	.39	2.10	4.38	27	158
Dec.	3.34	4.18	.91	.52	.39	2.09	4.35	26	159
1959									
Jan.	3.42	4.22	.91	.52	.39	2.11	4.39	24	162
Feb.	3.36	4.24	.91	.52	.40	2.12	4.41	26	158
Mar.	3.30	4.23	.91	.52	.40	2.11	4.40	28	156
Apr.	3.39	4.32	.91	.52	.40	2.16	4.49	27	156
May	3.58	4.46	.91	.52	.42	2.23	4.64	25	160
June	3.72	4.56	.91	.52	.43	2.28	4.74	24	163
July	3.71	4.58	.91	.52	.43	2.28	4.76	24	162
Aug.	3.58	4.58	.91	.52	.43	2.28	4.76	27	157
Sep.	3.78	4.69	.91	.52	.44	2.34	4.88	25	161
Oct.	3.62	4.76	.91	.52	.45	2.38	4.95	30	152
Nov.	3.55	4.70	.91	.52	.44	2.35	4.89	30	151
Dec.	3.70	4.74	.91	.52	.44	2.36	4.92	27	156

PERFORMANCE MEASURES OF THE MUNICIPAL BOND MARKET, 1945-70

Date	Bond Yield Indexes		Highest Marginal Tax Rates		Indifference Rates for			Efficiency Index	Market Rate as % of Indifference Rate for Commercial Banks
					Highest Tax Bracket		Tax-Exempt Institutions		
	Municipals	Corporates	Individuals	Corporations	Individuals	Corporations			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1960									
Jan.	3.72%	4.77%	.91	.52	.45%	2.38%	4.96%	27%	156%
Feb.	3.60	4.71	.91	.52	.44	2.35	4.90	29	153
Mar.	3.56	4.62	.91	.52	.43	2.30	4.80	28	154
Apr.	3.56	4.58	.91	.52	.43	2.28	4.76	28	156
May	3.61	4.61	.91	.52	.43	2.30	4.79	27	156
June	3.55	4.60	.91	.52	.43	2.29	4.78	28	155
July	3.51	4.56	.91	.52	.43	2.28	4.74	29	153
Aug.	3.34	4.44	.91	.52	.42	2.22	4.62	30	150
Sep.	3.42	4.41	.91	.52	.41	2.20	4.59	28	155
Oct.	3.53	4.44	.91	.52	.42	2.22	4.62	26	159
Nov.	3.40	4.47	.91	.52	.42	2.23	4.65	30	152
Dec.	3.40	4.50	.91	.52	.42	2.25	4.68	30	151
1961									
Jan.	3.40	4.48	.91	.52	.42	2.24	4.66	30	151
Feb.	3.31	4.40	.91	.52	.41	2.20	4.58	30	150
Mar.	3.45	4.33	.91	.52	.41	2.16	4.50	26	159
Apr.	3.50	4.37	.91	.52	.41	2.18	4.54	25	160
May	3.43	4.41	.91	.52	.41	2.20	4.59	28	155
June	3.52	4.45	.91	.52	.42	2.22	4.63	26	158
July	3.52	4.53	.91	.52	.42	2.26	4.71	28	155
Aug.	3.52	4.57	.91	.52	.43	2.28	4.75	28	154
Sep.	3.53	4.59	.91	.52	.43	2.29	4.77	29	154
Oct.	3.43	4.56	.91	.52	.43	2.28	4.74	30	150
Nov.	3.41	4.54	.91	.52	.42	2.27	4.72	30	150
Dec.	3.47	4.56	.91	.52	.43	2.28	4.74	29	152
1962									
Jan.	3.34	4.55	.91	.52	.43	2.27	4.73	32	147
Feb.	3.21	4.56	.91	.52	.43	2.28	4.74	35	140
Mar.	3.14	4.53	.91	.52	.42	2.26	4.71	37	138
Apr.	3.06	4.49	.91	.52	.42	2.24	4.67	38	136
May	3.11	4.43	.91	.52	.41	2.21	4.61	36	140
June	3.26	4.44	.91	.52	.42	2.22	4.62	32	146
July	3.28	4.49	.91	.52	.42	2.24	4.67	33	146
Aug.	3.23	4.49	.91	.52	.42	2.24	4.67	34	144
Sep.	3.11	4.46	.91	.52	.42	2.23	4.64	36	139
Oct.	3.02	4.41	.91	.52	.41	2.20	4.59	38	137
Nov.	3.04	4.40	.91	.52	.41	2.20	4.58	37	138
Dec.	3.07	4.38	.91	.52	.41	2.19	4.56	36	140

PERFORMANCE MEASURES OF THE MUNICIPAL BOND MARKET, 1945-70

| Date | Bond Yield Indexes | | Highest Marginal Tax Rates | | Indifference Rates for | | Tax-Exempt Institutions | Efficiency Index | Market Rate as % of Indifference Rate for Commercial Banks |
| | Municipals | Corporates | Individuals | Corporations | Highest Tax Bracket Individuals | Corporations | | | |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1963									
Jan.	3.10%	4.37%	.91	.52	.41%	2.18%	4.54%	35%	142%
Feb.	3.15	4.36	.91	.52	.41	2.17	4.53	33	145
Mar.	3.05	4.34	.91	.52	.41	2.16	4.51	36	141
Apr.	3.10	4.35	.91	.52	.41	2.17	4.52	35	142
May	3.11	4.36	.91	.52	.41	2.17	4.53	34	143
June	3.21	4.36	.91	.52	.41	2.17	4.53	32	147
July	3.22	4.39	.91	.52	.41	2.19	4.57	32	147
Aug.	3.13	4.40	.91	.52	.41	2.20	4.58	35	142
Sep.	3.20	4.41	.91	.52	.41	2.20	4.59	33	145
Oct.	3.20	4.43	.91	.52	.41	2.21	4.61	34	144
Nov.	3.30	4.44	.91	.52	.42	2.22	4.62	31	148
Dec.	3.27	4.46	.91	.52	.42	2.23	4.64	32	146
1964									
Jan.	3.22	4.49	.77	.50	1.07	2.34	4.67	40	137
Feb.	3.14	4.46	.77	.50	1.07	2.32	4.64	42	135
Mar.	3.29	4.47	.77	.50	1.07	2.33	4.65	38	141
Apr.	3.28	4.49	.77	.50	1.07	2.34	4.67	39	140
May	3.21	4.50	.77	.50	1.08	2.34	4.68	41	137
June	3.20	4.51	.77	.50	1.08	2.34	4.69	41	136
July	3.18	4.50	.77	.50	1.08	2.34	4.68	42	135
Aug.	3.19	4.49	.77	.50	1.07	2.34	4.67	41	136
Sep.	3.23	4.48	.77	.50	1.07	2.33	4.66	40	138
Oct.	3.25	4.49	.77	.50	1.07	2.34	4.67	39	138
Nov.	3.18	4.49	.77	.50	1.07	2.34	4.67	41	135
Dec.	3.13	4.50	.77	.50	1.08	2.34	4.68	43	133
1965									
Jan.	3.06	4.48	.70	.48	1.40	2.42	4.66	49	126
Feb.	3.09	4.46	.70	.48	1.39	2.41	4.64	48	128
Mar.	3.18	4.48	.70	.48	1.40	2.42	4.66	45	131
Apr.	3.15	4.48	.70	.48	1.40	2.42	4.66	46	130
May	3.17	4.49	.70	.48	1.40	2.43	4.67	46	130
June	3.25	4.52	.70	.48	1.41	2.44	4.70	44	133
July	3.27	4.56	.70	.48	1.42	2.46	4.74	44	132
Aug.	3.24	4.59	.70	.48	1.43	2.48	4.77	46	130
Sep.	3.35	4.63	.70	.48	1.44	2.50	4.81	43	134
Oct.	3.40	4.66	.70	.48	1.45	2.52	4.85	43	134
Nov.	3.46	4.69	.70	.48	1.46	2.54	4.88	42	136
Dec.	3.54	4.80	.70	.48	1.50	2.59	4.99	42	136

PERFORMANCE MEASURES OF THE MUNICIPAL BOND MARKET, 1945-70

Date	Bond Yield Indexes		Highest Marginal Tax Rates		Indifference Rates for Highest Tax Bracket		Tax-Exempt Institutions	Efficiency Index	Market Rate as % of Indifference Rate for Commercial Banks
	Municipals	Corporates	Individuals	Corporations	Individuals	Corporations			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1966									
Jan.	3.52 %	4.83 %	.70	.48	1.51 %	2.61 %	5.02 %	43 %	135%
Feb.	3.65	4.90	.70	.48	1.53	2.65	5.10	41	138
Mar.	3.72	5.05	.70	.48	1.58	2.73	5.25	42	136
Apr.	3.56	5.10	.70	.48	1.59	2.76	5.30	47	129
May	3.65	5.10	.70	.48	1.59	2.76	5.30	44	132
June	3.77	5.16	.70	.48	1.61	2.79	5.37	43	135
July	3.95	5.25	.70	.48	1.64	2.84	5.46	40	139
Aug.	4.12	5.38	.70	.48	1.68	2.91	5.60	38	142
Sep.	4.12	5.58	.70	.48	1.74	3.02	5.80	41	136
Oct.	3.96	5.50	.70	.48	1.72	2.97	5.72	44	133
Nov.	3.87	5.46	.70	.48	1.70	2.95	5.68	45	131
Dec.	3.86	5.48	.70	.48	1.71	2.96	5.70	46	130
1967									
Jan.	3.55	5.30	.70	.48	1.65	2.87	5.51	51	124
Feb.	3.52	5.18	.70	.48	1.62	2.80	5.39	50	126
Mar.	3.55	5.23	.70	.48	1.63	2.83	5.44	50	125
Apr.	3.60	5.26	.70	.48	1.64	2.84	5.47	49	127
May	3.89	5.42	.70	.48	1.69	2.93	5.64	44	133
June	3.96	5.63	.70	.48	1.76	3.05	5.86	46	130
July	4.02	5.72	.70	.48	1.78	3.09	5.95	46	130
Aug.	3.99	5.76	.70	.48	1.80	3.11	5.99	48	128
Sep.	4.12	5.87	.70	.48	1.83	3.17	6.10	46	130
Oct.	4.29	6.01	.70	.48	1.88	3.25	6.25	45	132
Nov.	4.32	6.23	.70	.48	1.94	3.37	6.48	48	128
Dec.	4.43	6.35	.70	.48	1.98	3.43	6.60	47	129
1968									
Jan.	4.29	6.29	.70	.528	1.96	3.09	6.54	49	139
Feb.	4.31	6.27	.70	.528	1.96	3.08	6.52	48	140
Mar.	4.54	6.28	.70	.528	1.96	3.08	6.53	44	147
Apr.	4.34	6.38	.77	.528	1.53	3.13	6.64	45	139
May	4.54	6.48	.77	.528	1.55	3.18	6.74	42	143
June	4.49	6.50	.77	.528	1.55	3.19	6.76	44	141
July	4.33	6.45	.77	.528	1.54	3.17	6.71	46	137
Aug.	4.21	6.25	.77	.528	1.50	3.07	6.50	46	137
Sep.	4.38	6.23	.77	.528	1.49	3.06	6.48	42	143
Oct.	4.49	6.32	.77	.528	1.51	3.10	6.57	41	145
Nov.	4.60	6.45	.77	.528	1.54	3.17	6.71	41	145
Dec.	4.82	6.66	.77	.528	1.59	3.27	6.93	40	147

PERFORMANCE MEASURES OF THE MUNICIPAL BOND MARKET, 1945-70

Date	Bond Yield Indexes		Highest Marginal Tax Rates		Indifference Rates for			Efficiency Index	Market Rate as % of Indifference Rate for Commercial Banks
					Highest Tax Bracket		Tax-Exempt Institutions		
	Municipals	Corporates	Individuals	Corporations	Individuals	Corporations			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1969									
Jan.	4.85%	6.73%	.77	.528	1.61%	3.30%	7.00%	40%	147%
Feb.	4.98	6.77	.77	.528	1.62	3.32	7.04	38	150
Mar.	5.26	6.95	.77	.528	1.66	3.41	7.23	35	154
Apr.	5.19	7.02	.77	.528	1.68	3.45	7.30	38	150
May	5.33	6.96	.77	.528	1.66	3.42	7.24	34	156
June	5.76	7.12	.77	.528	1.70	3.49	7.40	29	165
July	5.75	7.24	.77	.528	1.73	3.55	7.53	31	162
Aug.	5.98	7.23	.77	.528	1.73	3.55	7.52	27	168
Sep.	6.26	7.36	.77	.528	1.76	3.61	7.65	24	173
Oct.	6.09	7.53	.77	.528	1.80	3.70	7.83	29	165
Nov.	6.35	7.58	.77	.528	1.81	3.72	7.88	25	171
Dec.	6.82	7.93	.77	.528	1.90	3.89	8.25	23	175
1970									
Jan.	6.65	8.15	.735	.504	2.25	4.21	8.48	29	158
Feb.	6.36	8.13	.735	.504	2.24	4.20	8.46	34	151
Mar.	6.03	8.06	.735	.504	2.22	4.16	8.38	38	145
Apr.	6.49	8.03	.735	.504	2.21	4.14	8.35	30	157
May	6.96	8.24	.735	.504	2.27	4.25	8.57	26	164

SOURCES

Column 1:   Bond Buyer Index (20 bonds), average level during the month (except for 1945, when the index was only compiled at the beginning of each month): Board of Governors of the Federal Reserve System.

Column 2:   Moody's index of yields on Aa (the rating thought to be closest to the quality represented in the Bond Buyer Index) corporate bonds, average level during the month: 1945-63 from Section 12 of *Supplement to Banking and Monetary Statistics,* 1964 — May 1970 from various issues of the *Survey of Current Business.*

Column 3:   Maximum marginal tax rate for individuals: 1945-65 from Joseph Pechman, *Federal Tax Policy* (Brookings Institution, 1966), Table A-2 (p. 244); 1965 tax rate prevailed until April 1, 1968 when the 10% surcharge took effect, lasting until January 1, 1970, when the surcharge was reduced to 5%.

Column 4:   Maximum marginal tax rate for corporations: 1945-61 from Pechman, *op. cit.,* Table C-15 (p. 289); 1962-65 from *Statistics of Income. . .1965, Corporation Income Tax Returns* (U.S. Department of the Treasury, Internal Revenue Service), p. 7; 1965 tax rate prevailed until January 1, 1968, when the 10% surcharge went into effect, lasting until January 1, 1970, when the surcharge was reduced to 5%.

Column 5:   The interest rate on municipal bonds that should make an individual investor in the highest tax bracket indifferent between a corporate bond and a municipal bond of equal quality. Calculated by raising the after-tax yield on Aa corporate bonds by 4%, to take into account the greater liquidity of corporate bonds. That is: (1.04) *times* (Column 2 *multiplied by* (one *minus* Column 3)).

Column 6:   The interest rate on municipal bonds that should make a corporate investor subject to the highest marginal tax rate indifferent between a corporate bond and a municipal bond of equal quality. Calculated the same was as Column 5, only using the maximum corporate tax rate, rather than the maximum individual tax rate. That is: (1.04) *times* (Column 2 *multiplied by* (one *minus* Column 4)).

Column 7:   The interest rate on municipal bonds that should make a tax-exempt institutional investor indifferent between a municipal bond and a corporate bond of equal quality. Calculated by raising the rate on Aa corporate bonds (Column 2) by 4%, to adjust for their greater liquidity.

Column 8:   An indicator of the relative efficiency of the tax-exemption feature of municipal bonds. The index would have a value of 100 if the market rate on municipals equalled the indifference rate for individual investors in the highest tax bracket, and it would have a value of zero if the market rate on municipals equalled the indifference rate for tax-exempt institutions, and otherwise the index takes on a

value between zero and 100. Calculated as follows: (the indifference rate for tax-exempt institutions [Column 7] *minus* the market rate on municipals [Column 1]) *divided by* (the indifference rate for tax-exempt institutions [Column 7] *minus* the indifference rate for individuals in the highest tax bracket [Column 5]); the result is then multiplied by 100 to put the series in percentage terms.

Column 9:   Calculated as (Column 1) *divided by* (Column 6), and multiplied by 100. This is for commercial banks subject to the highest marginal tax rate.

Calculations for the series in Columns 5 through 9 were done by the Research Department, Federal Reserve Bank of Boston.

DISCUSSION

ARTHUR LEVITT

I want to compliment our host for having arranged this symposium on state and local financing. It is a vital and critical subject these days and therefore deserves broad attention. Many of our individual responsibilities start in our community and in our state. Many of our unfilled domestic needs can only be met at the local level. Many of our social programs can only succeed if they are strongly supported by state and local governments. In most instances these obligations and responsibilities can only be fulfilled through financial support of some kind, either through taxes or borrowings.

As Comptroller of the State of New York, I am deeply concerned with the burden our citizens are asked to shoulder. Our latest budget showed $6.5 billion in tax revenues and $7.2 billion in expenditures. The general obligations of the State of New York now total about $3.5 billion dollars which include bond anticipation notes of $700 million dollars, tax anticipation notes of one billion dollars, and bonds of $1.8 billion dollars. The issues of public authorities increase at the rate of a billion dollars a year and now total about $7 billion dollars.

Consequently, I am sympathetic to any proposal that will enable the State of New York to enhance its market financing efficiency. I have no preconceived notions that any new financing proposal be either through the tax-exempt or taxable route. I join in the search for an alternative solution. I do, however, feel that it must meet several prerequisites. Any new financing proposal should help to lighten the burden of our taxpayers. It should also improve the underwriting, distribution and secondary market for our issues.

Professor Surrey is indeed well qualified to present the argument for ending Federal income tax exemption of state and local bonds. During the past 10 years he has been the most articulate and persistent critic of this exemption.

In his paper, he quotes the House Ways and Means Committee, the Senate Finance Committee and the Treasury, but I suspect that practically all of their statements are taken from or stem back to Mr.

Mr. Levitt is Comptroller, State of New York.

Surrey's prolific writings and testimony on the subject.

The argument which he and Mr. Morris have presented relies upon the formula that as the volume of state and local borrowing rises, the saving in interest costs to those governments *declines* in relation to the assumed alternative cost of borrowing in taxable form, while the loss of potential income tax revenue to the U. S. Treasury *increases* with the growing value of tax exemption to the investors who buy municipal bonds. Thus, they contend, the Federal Government subsidizes state and local governments by the amount that the Federal Government's revenue loss exceeds the interest savings obtained by state and local governments through tax-exempt borrowing.

I question whether the 1969-70 slippage in interest savings realized by tax-exempt borrowing is attributable only to the growth of the capital requirements of the states and their municipalities. I suggest that some significant part of this slippage was caused by the attempts to erode the value of exemption in the 1969 income tax reform bill.

I am not convinced that the issuance of subsidized taxable bonds, as reviewed by Mr. Surrey in his paper and proposed by him and others several years ago, will actually improve the financing position of state and local governments. I doubt whether such bonds will lighten the burden of the taxpayer or, in fact, facilitate a substantial volume of municipal financing. Indeed, I am not alone with these feelings.

Last year, when credit markets were tight and many municipalities found it difficult to borrow in the open market, Congress had under consideration a bill approving the issuance of taxable municipal bonds but decided not to approve such a proposal. The primary reason for the inaction by Congress was that the beneficiaries of the bill — the state and local governments — were opposed and made their views known. It was the state governors, the mayors, and other local officials who convinced Congress that this was not in the interest of municipalities. It is rather strange to see others say to the overwhelming number of municipal borrowers who opposed the issuance of taxable municipal bonds, "You don't know what is good for you."

We are told that tax-exempt bonds have a limited investor following while taxable municipal bonds would enjoy a broad institutional investor interest. Presumably, this is because most of the non-bank institutional investors are either tax exempt or are not fully taxable. At first glance, this argument seems to have some

merit. The argument, however, fails the test of the actual trend in our financial markets. Let me briefly focus on the portfolios of the major non-bank institutions.

- I think that we can eliminate from our discussion mutual savings banks and savings and loan associations. They are primarily institutions financing mortgages. Moreover, in periods of tight money, these institutions are themselves disintermediated and therefore at that time would be of no help in the financing of state and local governments.

- Corporate pension funds are not committing a large percentage of their net new funds into fixed income obligations. In 1969, these funds invested 86 percent of their $6 billion of net new money in equities. Thus only $1 billion went into fixed income obligations.

- Public retirement systems are also increasing their net new investments in stocks and slowing down their purchases of fixed income obligations, which to be sure, continue to be large. In 1969, $2 billion or 35 percent of net new funds flowing into public retirement funds, was invested in stocks as compared with a minimal amount at the start of the 1960's. In addition, portfolio objectivity might well be compromised if public retirement funds were once again to become large investors in municipals.

- Life insurance companies invested much less in fixed income securities than the data suggest. In 1969, they bought net $1.6 billion of stocks. They bought $2 billion of mortgages, many with equity or revenue sharing "kickers." They bought net $1.7 billion of corporate bonds which were largely acquired through private placements and with equity "kickers." State and local governments cannot offer these inducements.

- Mutual funds concentrate their investment activity in stocks and will hardly be attracted to taxable municipals.

- Educational and charitable institutions do not in the aggregate have a significantly large net new inflow of funds to be an important source of funds to municipalities.

Admittedly, during periods of tight money and high interest rates, state and local borrowers experience some difficulties in financing their requirements in the open markets, which deserve to be ameliorated. However, this is not a problem singular to state and local governments. During these periods the availability of funds is

sharply curtailed for mortgage borrowers, small business and consumers. Indeed, I suspect the tax-exempt feature on municipal securities enables state and local governments to successfully withstand some but certainly not all of the credit rationing pressure which these other borrowers are forced to accept. Let me illustrate this by commenting on the portfolio preferences of the largest investors in municipals — the commercial banks and individuals.

How do commercial banks and individuals act in periods of tight money and credit ease? I think all of you will probably agree with me that when there is reasonable price stability in the U. S., adequate funds are available in the banking system to finance the requirements of municipalities. For example, from 1961 through 1965, commercial banks bought net 72 percent of the [net] new municipal bonds offerings. In 1967 and 1968, banks purchased net 95 percent and 81 percent respectively of the new municipal issues. In contrast, in periods of tight money, bank purchases of municipals falls off sharply as, for example, in 1966 and 1969. However, let me point out that municipals were much more strategically situated in the portfolios of the banks during periods of tight money than other investments. In 1966 when the banks bought net almost $2 billion of municipals, they liquidated over $3 billion of U. S. Government issues. In 1969, while banks purchased only about $700 million of municipals, they sold nearly $10 billion of U. S. Governments.

The Market for Tax-Exempts

The argument that banks are "unnatural investors" in tax-exempts is entirely fallacious. Commercial banks are both investors and lenders. While I am not a commercial banker, my dealings with banks clearly show that they have liquidity requirements which can be partly met through investments in tax-exempts. Moreover, banks have a wide range of responsibilities. They certainly should not be regarded or allowed to be merely lenders to business. They have an important stake in the welfare of their community and their state. Banks hold a variety of deposits and make a variety of loans affecting not only the national but, in many instances, the local economy. It is, therefore, natural and, I think, encumbent upon banks to take on active roles in the financing of state and local governments. I continue to remind the banks of this responsibility at every opportunity.

Whether the investor groups named by Mr. Surrey — private

pension trusts, state and local retirement funds and educational institutions — would move aggressively into the municipal taxable bond market is a real question. I do know that prior to the stock market break of 1969 and 1970, privately trusteed pension funds were investing largely in stocks and were openly scornful of bonds. I also know that state and local retirement funds are moving to invest increasing proportions of their funds in equities, in the hope of offsetting the erosion of capital caused by continuing inflation. Furthermore, these public pension funds are under constant pressure to put a high proportion of their funds into mortgages, a form of investment which is well suited to their purposes.

Since the category of investors chosen by Professor Surrey to take up municipal bond issues in taxable form would yield very little in revenues to the Treasury, being themselves exempt from income taxation, the assumption is that taxable investors would take up the presently taxable securities displaced by the newly taxable municipal bonds.

Incidentally, I must challenge the implication that commercial banks should not buy municipal bonds. I contend that bank support of state and municipal projects can be just as important to the economies of their communities as any loans they make to private business borrowers.

Concerning the role of the individual investor in the municipal market, let me first point out that their net purchases in periods of price stability is very small. During 1961-1965 their net purchases averaged only $1.5 billion annually, or 25 percent of the net new municipal bonds. In 1967 and 1968, the net new commitments in municipals by individuals were virtually zero. In contrast, in 1966 and 1969 individuals bought net $2.6 billion and $4.8 billion, respectively. It should be noted that individuals also purchased an unprecedented volume of U. S. Governments, Federal agencies and corporate bonds in both of these years and are continuing to do so this year. Thus, I really doubt that in years in which the institutional supply of funds falls far short of the demands for credit, municipalities could attract an enlarged volume of funds from individual investors by offering a taxable obligation, just as other credit demanders. It seems more likely that the tax-exempt feature is a distinct advantage at such times. As tax-exempt rates move above deposit rates, new investments in tax-exempts broaden to include not only individuals with high but also with moderate means and income. Tax-exemption is the only unique feature which state and local

governments can offer to these investors. There is certainly available to these investors a wide range of taxable instruments of all maturities and quality.

Those who favor the issuance of taxable municipal bonds neglect to focus on the aggressive demanders of taxable money and whether municipalities could really displace them. There are first the demands of our Federal Government and its various agencies. Their combined net market demands totalled $7.1 billion in 1967, $11.5 billion in 1968, and nearly $2 billion in 1969, and according to some unofficial estimates may total $15 billion in 1970. Does anyone really believe that taxable municipal obligations could outbid the U. S. Government?

At the same time, it is also unlikely that taxable municipals could effectively compete with the large and well-rated business corporations for funds. Such a struggle would most likely escalate the level of taxable interest rates which in turn would increase the burden of taxpayers, both directly to service municipal debt and indirectly through higher consumer and mortgage financing costs.

Recent history has clearly shown that most large business corporations do not curtail their external financing because of higher interest rates. It is quite the opposite. There is a direct correlation between the increase in interest rates and the increase in business external financing.

I do not dispute the need for improving the flow of money to state and local governments. The need is critical especially in this period of social unrest. However, I feel that the issuance of taxable municipal bonds is not the most efficient way. Much more fundamental measures should be undertaken to rectify the current imbalances.

Need for a Surplus in Federal Budget

First of all, we should recognize that the problem in today's credit markets cannot be resolved by merely improving the marketability of credit instruments and by transferring local and regional credit demands into national obligations. The problem lies in the alignment of our limited supply of new savings with the burgeoning demands for credit. This alignment is mainly the responsibility of our national policymakers encompassing both the monetary and fiscal arm of our Federal Government and, to a lesser extent, of state and local officials.

A large volume of financial resources would be freed for the financing of state and local governments if our Federal Government would reduce its demands on the credit markets by operating at a substantial budgetary surplus and by reducing the financing demands of its various agencies. Our Federal Government cannot discharge its responsibilities to municipalities by merely subsidizing taxable municipal issues, and at the same time increase its demands for credit thereby raising the level of interest rates through its own budgetary deficits.

My experience with fiscal administration clearly suggests that our people deserve to have priorities clearly contained in the budget of all their governments. In that way a clear evaluation can be made of both the benefits and costs of governmental programs. No less should be asked of our national policy leaders.

I also call upon the Federal Reserve to re-examine its techniques of monetary restraint. It, too, should be aware of the social priorities in our economy when restrictive measures are implemented. I suspect that improved measures of restraint can be formulated which would take these priorities into consideration. In any event, the credit crunch of 1966 and the super crunch of 1969 and 1970 should at a minimum suggest the need for improved monetary techniques.

In summary, adequate financing for state and local governments is a pressing issue. States can do much to maintain their market standing. I, for example, will continue to strive for budgetary practices in New York State that will yield our citizens the highest return for their tax dollar, and for borrowing policies that will maintain the high credit rating of my state.

In the final analysis, however, adequate access to the credit markets for municipalities can only be assured through meaningful national stabilization policies. I call upon the Administration in Washington to shoulder this responsibility squarely and with a deep sense of urgency.

Mr. Morris has produced a very well documented review of the relative experience of state and local governments in the bond market since the war. While his study fully supports Professor Surrey's argument, I want to comment on it separately because Mr. Morris puts his emphasis on the practical problems of financing state and local governments' capital requirements during the "Sad Seventies" rather than on ending tax exemption as a primary goal in itself.

In fact, Mr. Morris would raise the proposed Federal subsidy to the rate of 50 percent of interest paid on municipal debt. They say

every man has his price, and naturally as a state official I am the more attracted by a proposal of substantial additional aid to the state budget.

Nonetheless, I must hold to my position that the acceptance of this kind of Federal aid would — whatever the original intent — inevitably lead to some considerable degree of Federal control over state and local fiscal discretion. In fact, I argue that the greater the proportion of subsidy, the greater the likelihood of Federal control being exercised over the use of that subsidy. As I understand it, this is essentially the situation in Great Britain, where a high proportion of local financing is accomplished through rolling over short-term paper under central government guaranty, and where entry to the long-term bond market is very definitely scheduled only by central government permission.

I do not quarrel with Mr. Morris' statistical observations, although I think his allowance of 4 percent is far too low for what he calls the "liquidity adjustment". He correctly identifies the major cause of this liquidity differential as the use by local governments of serial maturities.

We all appreciate that this is a deterrent to marketability, especially in the secondary trading of bonds after they have been issued, but I believe that it is more than compensated for by the automatic amortization of debt which is accomplished by using serial maturities as opposed to term maturities.

Secondary Market for Municipal Bonds

My bank advisors tell me that, in another sense, the secondary market for municipal bonds is at least as broad as that for corporate bonds and far broader than that for long-term U. S. Treasury bonds. This is so, because hundreds of investment bankers participate in the secondary market for municipal bonds on a local, regional or national basis, whereas the secondary market for corporate bonds in any size is made by half a dozen New York firms specializing in this field.

I am told that as a rule any decent-sized block of municipal bonds which is put out for a bid will attract anywhere from half a dozen to 50 or 60 bids and that this simply is not true in the corporate and especially in the Treasury markets.

A Broader Approach to Credit Control Needed

Mr. Morris hits hard on the argument that the fate of the municipal market is determined very largely by the varying participation of the commercial banks. It is true that in 1969 under a central bank policy of credit restraint the commercial banks were not able to add to their holdings of municipals, and so the state and local governments were denied credit while major business corporations were able to obtain all the credit they needed.

I suggest that the Federal Reserve itself produced this result by so limiting the ability of the commercial banks to attract time deposits that they could not compete for funds; as a result something more than $13 billion flowed out of bank deposits, of which a high proportion went into the commercial paper market where it was employed by major business corporations.

A broader approach to credit control would have assured some continued flow of commercial bank funds into the municipal bond and note market.

Both Professor Surrey and Mr. Morris appear to ignore the fact that if state and local governments should move into the taxable bond market, taxable rates themselves would be driven to higher levels, and this would affect private business and the Treasury as well.

The second concept introduced by Mr. Morris, namely the "indifference rate" for commercial banks, is of course the obverse of his efficiency index for tax-exempt borrowing.

Recent Treatment by IRS

Judging by my recent experience, the indifference rate for commercial banks has been very significantly raised not only by the attacks on exemption of municipal bond interest which we have already discussed, but also by the less favorable treatment of discount amortization on bonds held by banks and finally by the recent vacillation of the Internal Revenue Service in regard to offsetting interest paid by banks against interest on municipal bonds.

Last week, for the State of New York, I had to arrange temporary loans totalling $688 million to be evidenced by notes maturing from two to nine months. For many years the State of New York has relied heavily upon our commercial banks for such temporary loans.

Two weeks ago I was warned that because the Internal Revenue

Service had raised new questions about the interpretation of Code 265 (2), our commercial banks were finding it difficult to appraise the rate of interest which should be required on our State notes. I was warned that unless the uncertainty could be cleared up, I might have to pay "insurance rates" at least ¼ percent higher than would be required for the new underwriting under less complex circumstances.

I took it upon myself to express to the Secretary of the Treasury my urgent hope that a ruling could be issued immediately, which I thought would be a reasonable request since the matter had been under consideration for a long time.

In response, the Treasury tried to be helpful, first by giving oral assurances to the banks and then by issuing a "statement" indicating that no penalties would be assessed for at least a couple of weeks, or until the ruling itself should be ready.

This indication was not satisfactory to the banks, and as a result the State paid at least ¼ of 1 percent, and probably more, in higher interest rates on $688 million of its notes, a not inconsiderable added burden for our taxpayers.

I mention this not in a complaining spirit, but because it is just one more example of the tribulations under which the municipal market has had to function, because of direct and indirect Congressional attacks and Internal Revenue regulations.

Finally, Mr. Morris argues that the voluntary conversion of municipal borrowing to taxable form would so restrict the supply of tax-exempt bonds coming to the market that the cost of borrowing in tax-exempt form would drop to a very low level in relation to taxable rates and thus raise the "efficiency index" to an acceptable percentage. I think it is more likely that the offer of alternative forms of borrowing would tend to equalize the net costs to local governments at whatever rate of subsidy the federal government should choose to pay.

However that may be, I am sure that the present holders of municipal bonds, who have suffered terrible losses — probably averaging 40 percent on bonds issued in the early 1960s — would welcome any measure which would help to restore their capital values. This inevitably would raise the charge that certain taxpayers were obtaining "windfall profits"; and presumably there would be attempts to recapture for the Treasury any profits so realized. The resulting complex regulations and administrative problems would be just another cost of the proposed swingover to subsidized borrowing.

In conclusion, I do not seek to minimize the problems facing state and local governments in financing their capital requirements; it would be foolish to say that they do not exist. However, I do believe that if we could halt the incessant sniping at tax exemption, and if the commercial banks were allowed to compete for funds, the tax-exempt market would continue as an efficient section of our financial structure.

The Case for
the Urban Development Bank

PETER LEWIS

The Problem

There are many problems connected with public finance; not surprisingly most concern money. To paraphrase Mr. Moynihan, how long will it take the public to realize that our cities are poor because they have no money?

The Proposal

I want to discuss with you one proposal among many designed to bring more money to the states and municipalities. In the Johnson Administration we called it the Urban Development Bank, or URBANK. The present administration calls its version the Environmental Financing Authority. There are significant differences between the two, but both raise money through the sale of taxable bonds and lend to public bodies at tax-exempt rates, the difference being met through Congressional appropriations. At the heart of the Urban Development Bank, and perhaps at the periphery of the Environmental Financing Authority, is the goal of improving and expanding the existing municipal bonds market. For next to state and local taxes, the municipal bond market represents the largest source of funds for states and cities.

Financial Needs

Let us start with a brief review of financial needs, because if states and cities do not need money — or if it is available from other

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sources — there is no pressing need for a new financial institution.

We are all aware of the rapid growth of state and local expenditures, more than doubling in the past decade. The fact that state and local governments have been able to make such expenditures is a tribute to the expansibility of the three major financing devices: state and local taxes, Federal grants, and state and local borrowings. All three contributed importantly to the financing of growth.

Over the decade, state and local taxes doubled; Federal grants doubled, and by 1967 state and local new bond financing had doubled. Although there was a decline in state and local borrowings in 1969, over the decade as a whole state and local borrowing more than doubled. The question before us is will these demands for funds continue, and if so, where will the money come from?

In 1966, the Joint Economic Committee forecast public facility capital requirements in the decade 1966 - 1975, projecting a total of $328 billion.[1] This forecast represents an average annual growth rate of 10.5 percent. These estimates were considered high at the time; they will probably turn out to be low. The pressure for public expenditures is not merely a function of population but also of standards. It is this escalation of standards that will keep public expenditures hopping for some time to come. It will be expensive indeed to bring the quality of the public sector in line with the private sector — as we are seeing with the equalization of Federal-private wage scales. And it is going to put even greater pressure on state and local governments — not only for salaries. Municipal public works standards are frequently low. Can we believe, for example, that anti-pollution standards will decline? That hospital standards, that recreation standards, that public transportation standards will decline?

State & Local Taxes

With rising income levels and a continuing shift from property taxes to income taxes, tax revenues will play a major role in supporting the increase in total expenditures. The ACIR found that taking the country as a whole, most state tax systems will produce an increase in revenue roughly proportional to the percentage increase.

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[1] Joint Economic Committee, "State and Local Public Facility Needs and Financing."

in state personal income. This does not speak of municipalities, where income taxes are less popular. And it does not address the main question that demands for public services are going to outstrip increases in personal income.

Although there is wide variation in tax effort among states, California and New York, which represent close to 19 percent of the population and 22 percent of the personal income of the nation, have a tax burden (including miscellaneous charges) of close to 16 percent of personal income. What the economic limit of taxation is I hope we will not soon know. What we do know is that state and local taxes have virtually tripled since 1956 and have increased 7-fold since 1946. While Federal taxes have declined steadily as a percentage of the GNP since the early 50's, state and local taxes have increased as a percentage of the GNP. When the press discusses a tax revolt, it is a local and state tax revolt they should refer to.

In its most recent annual report, the ACIR in referring to the past decade, commented "through this period the political landscape was strewn with defeated governors, mayors and county officials who had courageously committed suicide at the polls by doing what had to be done to increase sources of revenue to meet — in part at least — escalating service demands of the citizenry." Hopefully there will continue to be courageous elected officials — and local and state tax reform will proceed. Nevertheless I suspect most elected officials will still look to every alternative and the first will be the Federal government.

Federal Assistance

Some of us, particularly those of us who have been employed at the Federal level, are less sanguine than others in anticipating financial relief from Washington. We know the pressures of the private sector. What remains for the public sector is simply not enough for all the demands made upon it. Revenue sharing, which may be an attractive mechanism for the allocation of money to cities and states, does not, of course, raise money.

The problem of raising sufficient revenues for revenue-sharing, as well as Federal needs, remains. One can seriously question the ability of the Federal government to meet its announced responsibilities at the present tax rates. For the problem of rising standards and expectations at the local level is also true at the Federal level: pro-

grams for income maintenance, medicaid and compensatory educa-
tion — even the SST and inter-city rail transportation — reflect
rapidly changing standards.

The national commitment to end poverty is truly a giant leap for
mankind but a far more expensive one than that taken by Armstrong
on the moon. Moreover, rather than reducing demands for public
services, I would suggest that higher income standards will require
greater public service standards, and costs, at both the Federal and
local levels.

It is not the place here to enter into a detailed discussion of the
military budget. One would have to be a great optimist, however, to
forecast a major reversal in the absolute level of military spending for
a long time to come. We will be fortunate indeed if we can keep the
military budget flat from now on over any extended period of time.

Long-term planning cannot afford to count on a windfall from the
defense budget. In fact, if the percentage of the GNP devoted to the
military is not to rise, the Congress will have to keep a sharp lookout
for the "acorn" type of military systems now being substituted for
short-term reductions in operational expenditures. Such acorns
which bring forth expensive military oak trees may well mortgage
our natural revenue growth if we are not careful. Charles Schultze,
former budget director, has written carefully on this subject and for
those who still count on savings in the military budget I recommend
him to you.

In short, payments to state and local governments are going to
have to compete hard with Federal civilian responsibilities as well as
military responsibilities.

Municipal Bond Market

If salvation is not to come from Washington and political suicide
seems to be the reward for fiscal courage, our elected official must
turn to other sources: the municipal bond market is one such source;
a market which provided $25 billion in 1968, $23 billion in 1969 and
probably more than $25 billion in 1970. Surprisingly enough, our
elected official doesn't pay a great deal of attention to this area. It is
mysterious. It is controlled by bankers. It is characterized by a grade
system — a single A being only third best. He pays attention only
when the U.S. Treasury staff (or Wright Patman) challenges its basic
tax exempt features.

It was felt that in this mysterious but important area the Urbank could make its mark. The Urbank was proposed because it was believed that a bank could make a contribution to the solution of the money problem by expanding and improving the municipal bond market. It was not designed to destroy that market. Rather, it would achieve its aim in several ways:

- by tapping new funds for municipal needs
- by increasing the competitiveness of the municipal bond market, particularly the smaller, less known communities, and
- by providing technical expertise and assistance to its clients.

Because the municipal bond market is our target for improvement, I would like to discuss some of those things that are right with it — and some of those things that are wrong with it.

What Is Right With It?

What is most right with it is that it is large. It is effective. It is established. Most communities can rely on it at a price. From a level of $5.3 billion of sales of municipal bonds in 1948-50 the market absorbed over $25 billion in sales of state and local bonds in 1968 and should exceed that total in 1970. A total of 8,000 communities should go to market this year. At the end of 1969 there were outstanding a total indebtedness of states and local governments of $123 billion. This is a lot of financing. It is equivalent to about 40 percent of the Federal debt outstanding.

What Is Wrong With It?

What, then, is wrong with it? The first thing is that, of course it is not large enough, and it could be larger. It is too dependent upon commercial banks as buyers; the maturities of its securities are too short; smaller cities are at a disadvantage; the cost of funds is too high in relation to the tax benefits given by the Treasury — and this relative cost may go even higher. Let me touch upon some of these defects.

Capacity to Serve Additional Debt

State and local governments have increased the amount of their outstanding indebtedness by seven times since World War II but,

taken collectively, their debt policy has been quite conservative and not out of line with the state and local governments' capacity to service it. The amount of receipts (exclusive of borrowings) has increased as rapidly as outstanding indebtedness and the ratio of debt to revenues has not exceeded 1.5 to 1 in any year during the past three decades.

It is interesting to point out that before World War II and back to the beginning of this century this ratio generally exceeded 2.0 to 1.0. Interest on state and local debt in recent years has absorbed roughly 3 percent of total revenues compared with an interest burden ranging from 8-9 percent of revenues in the Federal budget. Of course there can be no precise formula for determining the limit on the amount of indebtedness, particularly in the case of a sovereignty with the power to tax. A multitude of factors enters into a consideration of the amount that a municipality can prudently borrow and the amount that bankers and other investors should appropriately lend. Among them

- the level of receipts from sources other than borrowings,
- the portion of those receipts that must be used to service debt,
- the portion of those receipts that are derived from stable sources which can reasonably be expected to be sustained for an indefinite period,
- the level and terms of existing indebtedness,
- the purpose to which the proceeds of the proposed new borrowings are to be put,
- the extent to which the projects and programs financed are self-liquidating, or at least revenue producing,
- the interest rate, maturity, grace period and type of amortization schedule that would apply to any proposed new debt,
- the economic position of the borrower,
- the quality of management of the projects being financed, and the management and leadership of the community as a whole — both civic and official, and projections of population and economic growth.

If borrowings do not seem excessive in terms of the borrowers' own financial strength, one can also argue that in terms of the total public and private debt, state and local debt is not high. In 1933 it represented 10 percent of the total; in 1970 it probably represents less than 8 percent. Since the relative level of debt between the

public and private sectors is a question of great subjectivity and political bias, it can at least be said that there appears to be room for additional state and local debt if we wish to so set the priorities.

Market Relatively Narrow and Highly Variable

State and local government bonds are bought by a broad range of investors but exemption from U.S. income tax is an attraction which limits the bulk of the sales to the relatively narrow group of institutions and individuals in the upper tax brackets. At the end of 1969 three groups of investors held 89 percent of all municipal securities outstanding:

- commercial banks held 44 percent of all municipals outstanding;
- individuals held about 32 percent of all municipal bonds outstanding;
- insurance companies held 13 percent of the municipals;
- all other investors combined (mutual savings banks, private pension funds, public retirement funds, state and local governments, municipal bond investment funds, other financial institutions, business corporations and federal credit agencies) held the remaining 11 percent.

More importantly in recent years, with the exception of 1969, commercial banks have accounted for approximately two-thirds of the net purchases of municipal bonds. This compares with their purchases of about one-third of the municipal bonds issued a decade earlier.

Commercial banks thus now dominate the investment side of the municipal bond market. Such a narrow market is not as competitive, particularly for small and medium sized issues, as the broader based corporate bond market or the market for U.S. Government and World Bank bonds. A less competitive market results in higher interest rates and harder terms, and consequently reduces the total amounts that can be raised.

In addition to being relatively narrow, the municipal bond market is highly volatile. Most of the commercial banks' business comes from corporate and individual depositors who, understandably, enjoy first priority on the banks' lendable resources.

Commercial banks, therefore, purchase municipal securities only

after having fulfilled their Federal and state regulatory investment requirements and after having taken care of their regular customers. Thus, the Banks' holdings of municipal paper at any particular time are limited to the amount of their residual funds that are not used to buy Federal, Federal Agency and other securities.

The wide fluctuations in demand for business and consumer credit create a wide variation in the availability of funds for the purchase of municipal paper by the dominant factor in the market. This occurred dramatically in 1969 when commercial bank net purchases of long term municipals fell from a level of $10.7 billion in the previous year to $3.9 billion. In 1969 commercial bank net purchases accounted for only about one-third of net purchases of municipals.

Overall, during the period from December, 1968 through December, 1969, sales of long-term municipals declined from $16 billion to $11 billion, a decline of 30 percent. Although the sale of short-term municipals (under one year) jumped by more than $3 billion, offsetting a good portion of this decline, the refunding problem becomes just $3 billion more severe during 1970.

Maturities and Grace Periods Too Short

One of the most important principles in financing development is that loan maturities and grace periods be appropriate to the nature of the project or program being financed and that account be taken of the debt servicing capacity of the borrower in setting such terms. It is basically unsound to finance long-term capital works with short-term loans.

Economic and social overhead development works generally are substantial, solid, permanent structures with a very long life potential. They usually have an economic life of 50 years or more if reasonably well treated and properly maintained. Obsolescence is not a serious factor in most public facilities. Consequently, the international practice in financing development works of this type is to set the final maturity of the loan at approximately the end of the economic life of the facility being financed.

Public works are usually large, sometimes complex, and generally require several years to construct. It is standard development finance practice to set the first maturity of the loan six to twelve months after a realistic estimate of the date that construction will be completed. In cases of revenue producing projects, the date of the

first maturity may be extended for a reasonable period if it is expected that there will be a further lag in the project generating income, especially for newly organized entities.

In addition, it is traditional in financing development to take account of the current and prospective economic and financial position of the borrower in determining the final maturity and grace period of the loan. Borrowers with current financial difficulties but with reasonable long-term prospects could be accorded maximum maturity and grace periods of municipal securities currently being issued but it is clear that

- maturities are frequently shorter than needed for sound municipal development financing;
- grace periods are generally non-existent;
- both maturities and, where they exist, grace periods more nearly accommodate the interests of the investors than the developmental and financial needs of the municipalities;
- laws governing municipal borrowing have been written to preserve conservative standards and, therefore, do not permit as much discretion as would be desirable;
- the municipal bond market is considerably more conservative in establishing maturities and grace periods than a development banking institution would be;
- the commercial banks, the predominant buyers and holders of municipal securities, understandably prefer shorter term maturities.

In 1965, the latest year for which data are available, only one-tenth of all municipal securities issued had a final maturity in excess of 20 years. A survey made by the Federal Reserve Board of its member banks in June 1967 indicated that only 9 percent of municipals held had a maturity of 20 years or more. More than two-thirds had a maturity of less than 10 years.

This is in sharp contrast to the extensive need for municipal development loans of 40 years or more and to the practice of the Federal government to progressively make more of its loans, many for identical or similar types of facilities, at terms of 30 to 50 years.

These longer terms would reduce the level of the annual debt service burden on the municipality per dollar borrowed, make possible substantially larger municipal borrowings and provide an incentive for municipalities to accelerate their rate of development and progress.

Cost of Money Too High

The yield on municipals is too high

- — in relation to corporate bonds;
- — in relation to U.S. Government securities.

The yield on state and municipal securities is too high, particularly in light of

- — exemption from U.S. income taxes and, in some instances, from state income taxes on interest paid to holders of municipals;
- — an excellent debt service record, with a post-war default record second only to that of the U.S. Government.

Yields averaged between 1 and 2 percent throughout World War II, progressively increased to approximately 3 percent in the late '50s, and remained between 3 and 3½ percent until the past several years when they have rapidly increased, with some issues now exceeding 7 percent. The current rate is exceedingly high, particularly since it has to be borne entirely by the states and local communities; they are unable to write off half of it through income tax deductions as corporate businesses do and they are unable to recoup a third or more through income taxes as the U.S. Government does. In one sense it can be said that the net cost of money to states and municipalities is the highest of any group of borrowers with relatively good credit records.

The cost of money to municipalities is not only very high in absolute amount but it is too high in relation to the yields on taxable securities.

Exemption from Federal income tax of interest paid to holders of municipals lowers the cost of borrowing to state and local governments, but, as we know, it does not lower the cost to the states and municipalities to the full extent of the tax exemption.

Competition for money has resulted in the states and municipalities sharing this benefit with the investors. The extent to which this exemption is shared is clearly revealed by the relationship of yields on tax exempt municipals to taxable securities. The yield of municipal securities is currently 70-75 percent of the yield of top rated corporate bonds and 80-85 percent of long-term governments, despite the substantial tax benefits that accrue to nearly all of the purchasers of municipals.

A research project carried out by Brookings Institution indicates that the average income tax rate, before the introduction of the surtax, of holders of municipal securities was 42 percent. This, therefore, means that the states and municipalities receive only about one-half of the benefit from the exemption from Federal income taxes; the investor gets the remaining one-half of the benefit. Consequently, the loss in tax revenue to the Federal Government is considerably greater than the benefit to the states and municipalities.

The yield differential between tax-exempts and taxables has narrowed — as can be expected when the municipal bond market is under great pressure. I suspect it will be under even greater pressure as governments become more sophisticated in their financial plans. For example, close to half the states currently have housing programs which finance private middle income housing by the sale of tax-exempt bonds. The largest of these programs, the N.Y. City Mitchell Lama Program had outstanding $554,000,000 in tax-exempt bonds as of April 30, 1970. The New York State Mitchell Lama Program, a separate program, had outstanding $426,000,000 in tax exempt bonds. At the moment, the totals are small due to start-up time and administrative red tape.

In several years, given the backlog of demand for middle income housing, we could see $2-3 billion in annual sales of tax-exempts for private middle income housing. This is a new demand over and above the traditional use of tax-exempt bonds, and adds to the pressure.

If one believes the pressures will continue, one must assume the yield differential will continue to narrow to the point where the states and cities will receive very little benefit from a costly tax advantage.

Penalty for Smallness

Small communities are generally penalized, solely on the basis of their size, in respect to

- their ability to utilize the money market fully and effectively
- the interest rates they have to pay for borrowed funds.

Many small and medium-sized communities do not use the facilities of the capital market. Those that do are seldom able to borrow all of the funds that they need and, in any case, they pay more for it — both directly and indirectly — than do the large municipalities.

The small and medium-sized communities frequently do not have a staff experienced in the preparation and justification of loan requests, and a market interested in providing it with funds.

A study of the National League of Cities concludes that small municipalities pay higher rates of interest, solely because of their size, despite the fact that the degree of risk involved is not an intrinsic characteristic directly attributable to size alone.

The study showed that the average annual interest cost paid by municipalities with less than 10,000 people was greater than the interest cost paid by municipalities with 10,000 to 250,000 inhabitants for each year and type of bond of a similar maturity during the five year period 1961-65.

The Issuer

In addition to the problems within the market place, there are problems which relate to the issuer. Frequently he is fearful of going to the market — he does not understand it. He is confused about the amount he should borrow — or recommend to the community. He is discouraged about interest rates. Lawyers and bankers are expensive. This lack of sophistication is a major contributor to the fact that many communities are under-borrowed.

Today's generation should not have to provide all the infrastructure for tomorrow's larger and more productive generation. mortgage free. Yet this policy is behind the financial thinking of many of the leaders of our cities and states. It certainly is reflected in many obsolete debt limits and interest ceilings.

In addition to being fearful, many issuers have very poorly developed financial plans. The 1960's witnessed a great spirit of local and regional planning: mostly physical, sometimes social, rarely financial. Too often the plans were merely songs to be sung in the shower — they sounded great when the curtain was closed.

Financial planning not only opens the curtain to reality but it may, in fact, be the only practical mechanism for coordination among disparate development goals. Many of the communities have financial disciplines and skills; most do not. There is a great need for technical assistance in this area.

Municipal Bond Market — Summary

In summary, the municipal bond market is large but not large

enough; its reliance on commercial banks is dangerous; its terms are onerous. Its competitiveness is open to question. And the borrower is generally frightened of the market and can frequently use expert help in preparing financial plans and making financial decisions.

The Urban Development Bank

So the Urban Development Bank was born. Its structure is simple:

The Urban Development Bank would be a financial institution borrowing long-term money from the taxable bond market and lending long-term money to public bodies for capital projects — at tax-exempt rates. The difference in interest received and paid would be made up by annual appropriations from the Congress. The Bank would have a technical assistance arm.

The Bank would not, I repeat, not be a Federal institution. The Federal government would own no stock. The states and cities would. Although the President of the United States would have the power to appoint the President of the Bank and a minority of the Directors, the control of the Board would be in the hands of the cities and states.

Urbank Lending Policies

The Urban Development Bank would finance those expenditures generally financed through the tax-exempt bond market. Urbank would not finance the private sector. It would finance capital expenditures of states and localities for schools, hospitals, water supply, sewers, parks, public transportation. Although not excluded, it was recommended that the Bank avoid housing — at least initially. It was felt that there were sufficient financial institutions and arrangements already active in housing. Yet it was felt that housing as part of any overall developmental package would not necessarily be excluded: A state new-town development, for example.

It was strongly urged that the specific lending priorities of the Bank be left to the discretion of the Bank's management and to its Board. Priorities change: three years ago the priority of the Bank might well have been public transportation; today it would probably be anti-pollution. Moreover priorities at the local level are not necessarily national priorities. One would hope that an effective bank — run by a Board of Directors representing various levels of

government — would indeed elevate the quality of debate on priorities and investment standards and thus set development standards for the traditional bureaucracies.

What Would the Bank Charge for Its Money?

The rate charged the municipalities would be in line with the tax-exempt municipal bond market, except that, as in the case of the World Bank, there would be one rate for all borrowers. The rate would be set high enough to limit the demand for funds to a reasonable multiple of supply. This rationing system would have the effect of encouraging application from those communities with lower than average credit.

For example, if a 7 percent rate were used today, communities such as the City of Miami and Anchorage, Alaska would probably find it attractive to borrow from the Urbank, whereas a community such as the State of Connecticut would probably prefer the existing capital market. This is oversimplified, as much could turn on maturity schedules, size of issue and other terms. Nevertheless the Bank would tend to operate among customers with less than AAA credit and with limited access to the national money market.

It is important to note that in both cases — the case where the community borrows from the Urbank and the case in which the community goes to the traditional market — interest paid on the obligation of the community would be tax-exempt. The only difference is that the creditor in one case is the Urbank and in the other, the public. There would be no prohibition, in fact, against the Urbank selling portions of its loan portfolio to the public when rates made this desirable.

This is an important distinction from certain alternative schemes which would require two distinct sets of local securities — taxable and non-taxable. The structure of the Urbank leaves untouched the tax-exempt status of the borrower and his debt.

Urbank Borrowing Costs

Where would the Bank gets its money? The Bank would borrow money from the public on a taxable basis, paying the going rate. An agreement would be entered into with the Treasury which would provide that the Treasury would come to the aid of the Bank in case

of need — which precedent we have in the Fannie Mae situation and which is regarded by the public investor as an "unofficial" guaranty of the U.S. Government. In today's market this might require a rate of 8½ percent for long bonds.

Now a cost of 8½ percent and a charge of 7 percent means a loss of 1½ percent. This difference would be borne by the Treasury through annual appropriations. It has been argued that such appropriations would not cost the U.S. Treasury anything as the tax bite on the interest on the Urbank bonds would be more than enough to cover differential. The specific Urbank legislation sets a maximum interest subsidy equal to one-third the cost of borrowed money. Calculations indicate the average tax "loss" on the existing municipal bonds is in excess of 40 percent.

If the Urbank paid out $85,000,000 interest on $1,000,000,000 of borrowings, the maximum Treasury contributions would roughly be $28,000,000. Assuming an average 40 percent tax bite on the $85,000,000 interest paid, revenue collections would total $34 million — a theoretical gain to the Treasury of $6 million.

Operating costs of the Urbank would be covered by banking fees and other advisory fees. These should not exceed those normally paid by municipalities to their private bankers.

Management

Who would run the Bank? The Bank would be run by its management staff reporting to a Board of Directors. The current accounting principles of the U.S. Bureau of Budget require that if the Federal government owns shares of a corporation, the expenditures or loans of that institution become part of the U.S. budget.

This is fortunate for the theory of new federalism because those who conceived the Urbank felt that such an institution could make a major contribution to inter-governmental relations provided it were not Federal. An essential ingredient of the Urbank is, in fact, that the states and cities would own shares of the Urbank, would elect a majority of the Board of Directors and would be independent of the Federal bureaucracies.

As part of this strategy to keep the Urbank independent, there was also created the possibility of a special class of stock to be owned by private corporations and financial institutions. The Board of Directors would, according to the legislative proposal, have consisted

of 17 members. The President of the Bank, who would serve as Chairman, and six other members of the Board were to be appointed by the President of the United States with the advice and consent of the Senate.

No more than three of these Presidentially appointed Directors could be employees of the Federal government. The other three Presidentially appointed Directors would be prominent community leaders, professionals, academicians. States, which would own Class A shares, would elect four directors; cities, which would own Class B shares, would elect four directors, and the private sector shareholders would elect two directors.

Ownership of shares would be through purchase and would entitle the shareholder to vote for directors. Borrowers would not have to be members. It is believed, however, that most states would join.

Technical Assistance and Advice

In addition to its financing capabilities the Bank would provide technical assistance to communities. This would include technical assistance in the preparation of development programs, financial planning and administration. This might also include certain investment banking functions. For example, a large city might require $200 million for a public transportation project. The Urbank might take $50 million of the loan for its own account and help the city place the balance with traditional lending institutions.

Urbank Summary

That in brief is a description of the Bank: A bank which would borrow money in the taxable market, lend money in the tax-exempt market, make up the difference through contributions from the Treasury, be guided in its lending policies by the majority of whose directors would represent states and municipalities.

Those of us who worked on the Urbank proposal believed it would have the potentiality to

    — tap a broader and larger capital market than is currently available to cities and states,
    — provide longer term financing,
    — reduce the cost of municipal borrowing,

— add a competitive element to the existing municipal bond market,
— act as a catalyst for sound development and financial planning,
— develop an able group of technicians specializing in urban development,
— provide a framework for discussions among various levels of government on common problems,
— provide a more businesslike image in urban development.

If only a few of these potentials were met, the Urbank would justify its existence many times over.

Environmental Financing Authority

The Nixon proposal which was submitted to the Congress this past February calls for the establishment of an Environmental Financing Authority. The Environmental Financing Authority or EFA appears to be a cut-down version of the URBANK Bill. It may be useful however to outline the differences in order to highlight some of the issues.

First, EFA is a Federal instrumentality. The Urbank is not a Federal entity. Unlike the Urbank, EFA has no state and local representation on it; it is directed by the Secretary of the Treasury with only Federal officials and employees on the Board.

Secondly, EFA is restricted in its lending to the construction of waste treatment works — and, more specifically, only to finance the local share of those projects funded by Interior Department grants. Thus in the EFA proposal, the Urbank becomes a rather automatic device to ease the way for Federal grants. Little or nothing is left of the concept that Urbank could begin to break ground in setting development standards, criteria and local priorities. In the EFA proposal, the Federal government has settled upon one priority, that of waste treatment works. What I suspect will happen is that we shall discover new priorities and have a series of Financing Authorities — for health facilities, mass transit, schools, etc.

It is unfortunate that the concept of building an institution was dropped; creativity, leadership and coordination are desperately needed in development programs. Money, of course, is a great inspirer and coordinator, and an independent non-Federal institution — with money — would be in an enviable position to stimulate those creative functions.

Nevertheless, the EFA is a step forward, a recognition that the municipal bond market is strained and that the Federal goals are furthered by relieving some of that pressure.

EFA should, however, and may one day, be more.

Inflation, Credit Programs and the Federal Budget

At a time when the Federal government is fighting inflation something must be said about creating a credit program outside the budget. As I understand it, neither the operation of EFA nor the operation of Urbank would be included in the Federal budget.

I believe the case for the Urbank being outside the Federal budget is clearer than that of EFA. The budget concepts recommended to President Johnson three years ago by Treasury Secretary Kennedy and current Budget Director Mayo would regard the Urbank as a non-Federal institution, and as such its operations would be excluded from the budget. Because the shares of EFA are to be owned by the U.S. Government, under the existing budget concept the EFA would normally be treated as a Federal entity and its loans would be considered as direct Federal loans. I am curious to see how the new budget team explains its way out of this one.

Despite my personal curiosity, I am sympathetic with the problems of budget treatment of loans, interest subsidies and guarantee programs. There are many of these and they are growing. Programs such as the Section 236 interest subsidy program for middle income housing clearly have an economic impact far above the subsidy or they would not have been proposed. Such programs have a complicated relationship to the budget. Generally the expenditure budget is an allocation device, concerned with the allocation of tax collections. Credit assistance programs, however, tap pools of money not directly under Federal control — such as mortgage money. The tax exemption privilege is also a credit assistance device and hence the attempt — if not to put the value of this subsidy in the budget — at least to calculate it publicly. Subsidies to the Urbank consitute a kind of Federal allocation of private pools of capital, an incentive to shift private capital to state and local purposes from Federal or private purposes.

The subsidy itself is, of course, under control of the Congress. The economic impact is estimable or will be in time. The credit authorities still set the overall credit policy for the country and there is no reason for the Congress and the Administration not to attempt

to shift allocations between the public and private sectors within that credit framework. This in itself is not inflationary.

The debate over the allocation of national resources between the public and private sectors will be a continuing one. The capital market is not immune from a conscious effort to shift financial resources to the public sector. The Urbank and EFA are part of this strategy.

TABLE I

COMPARISON OF BEFORE—TAX YIELDS
ON LONG—TERM AAA MUNICIPALS
AND LONG—TERM U.S. GOVERNMENT BONDS

YEAR	YIELD ON AAA MUNICIPALS (%)	YIELD ON GOVERN— MENT BONDS (%)	YIELD ON MUNICIPALS YIELD ON GOVT. BONDS
1960	3.26	4.01	.81
1961	3.27	3.90	.84
1962	3.03	3.95	.77
1963	3.06	4.00	.77
1964	3.09	4.15	.74
1965	3.16	4.21	.75
1966	3.67	4.66	.79
1967	3.74	4.85	.77
1968	4.20	5.25	.80
1969	5.45	6.10	.89
1970 (May)	6.24	7.20	.87

Source: Federal Reserve Bulletin, May 1970

TABLE II

VOLUME OF STATE AND MUNICIPAL BORROWING 1950 - 1969
(billions of dollars)

YEAR	LONG—TERM ISSUES	SHORT—TERM ISSUES	ALL ISSUES
1950	3.7	1.6	5.3
1951	3.3	1.6	4.9
1952	4.4	2.0	6.4
1953	5.6	2.7	8.3
1954	7.0	3.3	10.3
1955	6.0	2.6	8.6
1956	5.4	2.7	8.1
1957	7.0	3.2	10.2
1958	7.4	3.9	11.3
1959	7.7	4.2	11.9
1960	7.2	4.0	11.2
1961	8.4	4.5	12.9
1962	8.5	4.8	13.3
1963	10.1	5.5	15.6
1964	10.5	5.4	15.9
1965	11.1	6.5	17.6
1966	11.1	6.5	17.6
1967	14.3	8.0	22.3
1968	16.4	8.6	25.0
1969	11.4	12.0	23.4

Source: The Bond Buyer, 1970

TABLE III

OWNERSHIP OF STATE AND MUNICIPAL SECURITIES

PERCENTAGE DISTRIBUTION

Year	Individuals	Comm. Banks	Ins. Comps.	All Others	(see note)
1959	39.74	27.46	15.35	17.45	
1960	40.96	25.30	16.72	17.02	
1961	39.47	26.22	17.57	16.74	
1962	38.33	28.96	17.10	15.61	
1963	36.90	32.48	16.88	13.85	
1964	36.91	34.50	16.43	12.16	
1965	36.29	36.90	15.32	11.49	
1966	36.45	38.45	13.74	11.35	
1967	35.12	40.25	13.68	10.94	
1968	32.29	43.50	13.60	10.62	
1969	31.55	44.15	13.06	11.24	

Note: includes state and local funds, corporation funds, savings and loan associa-
tions, corporate pension trust funds, mutual savings banks, and U.S. Govern-
ment investment accounts.

Source: The Bond Buyer, 1970

DISCUSSION

HENRY WALLICH

It is a privilege to have the last scheduled word at a conference like this one. The honor is partly offset, however, by the disadvantage that almost everything one intended to say has already been said. Of the very few things that have not been said, some are enshrined in Peter Lewis' excellent paper, and unfortunately he skipped those. I will have to comment on these non-remarks of his, or remarks that he did not make very explicit.

The tenor of my comments will be to think small. Peter Lewis thought big. He has in mind a large, new organization — Urbank. I shall say a few words in defense of little EFA (Environmental Financing Authority), which would be a small organization. I have no great enthusiasm for coming to the rescue of EFA, however. There is a difference of size, but both outfits are essentially similar and capable of mischief. I shall explain why I think so.

Peter Lewis, in his excellent paper, starts out with some large numbers. I would like to bring those down to smaller dimensions. This has to do with the size of the tax-exempt market, which he states in gross terms — that is, before amortization. So stated it does look indeed like a $25 billion operation. In net terms, as Peter undoubtedly knows, it has been less than $10 billion in the last couple of years. As a resource to states and municipalities, therefore, it ranks well below Federal grant programs, which now are running in excess of $25 billion a year.

To say a few words about a side of the municipal bond market which Peter did not touch upon much, I think we have a very interesting lesson here on the effects of specialization, either in lending or in borrowing.

State and local authorities are specialized borrowers in that they appeal principally to commercial banks and secondarily to upper-bracket individuals. We have another example of relationship — the savings and loan and the housing industries. While the housing industry is not a very specialized borrower, it does rely heavily upon

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a specialized lender, the savings and loan associations.

The two sectors, state and local authorities and housing, that rely in some way on specialized borrowing and lending, have done worst in the recent tight period. That, I think, is a lesson. When the Commission on Financial Structure and Regulation examines the experience, I hope that record will weigh. We need more diversified credit institutions.

Next, I would like to say a word about the calculations put forward with respect to costs and benefits of the existing tax-exempt bonds. It is very difficult, as you probably know, to figure out what the true cost to the Treasury of tax exemption on municipal bonds is. It is generally stated to be in the range of 40-50 percent of the interest paid. This, however, depends on the assumption that Stan Surrey's proposal prevails and all tax-exempt bonds are eventually eliminated. In that case, even top-bracket taxpayers lose their bonds, and that is where the biggest revenue loss is. If only a portion of these bonds is eliminated, for instance by a Urbank-type device, then it will be lower bracket taxpayers who will be holding taxable securities instead of tax exempts. The loss to the Treasury in that range is much less, and consequently the gain from ending part of the tax exemption is also less.

I might add that the top bracket taxpayers whose marginal rate enters into these calculations may get tax-exempt interest not only in their marginal income bracket, but in their lower brackets too, in which case again the loss to the Treasury is less.

At the same time, a special hidden cost is imposed on holders who have a large part of their assets in tax exempts, in the form of inadequate diversification of their portfolios. The consequences of inadequate diversification have become apparent in the tremendous losses suffered by municipal bondholders in recent years.

There are also some misconceptions about the interest costs of competing borrowers. For instance, I see in the literature that it is widely believed that the Treasury recoups something like 30 percent of the interest it pays. That is thinking big.

If you think small, you will remember that if the Treasury did not issue a particular security because it did not have a need for the money, then somebody else would be presumably selling a security — at full employment the total amount of borrowing must be constant. The Treasury would get tax revenue from the interest paid on that alternative security. So the Treasury really recoups nothing unless

you assume that Treasury borrowing increases the GNP.

The same applies to the statement that corporations save 50 percent of interest because it is taken off taxes. Once more, that is thinking big. Thinking small, I am unable to understand corporate treasurers who say that. They never seem to say that wages likewise are 50 percent tax deductible. Of course, that is as true or as false as it is with respect to interest. If you regard the tax deductibility of interest as a kind of subsidy, you must spread it over all corporate expenditures equally. Very little of it will be applicable to interest, and most of it will be applicable to wages. I think it is a wrong way of viewing the tax anyway, but if one wants to do it, one must allocate it in proportion, and in that case the share of interest that is offset by the corporate income tax becomes quite small.

Let me now turn to Urbank, and first focus on some of the improvements that presumably, if created, it would introduce into the municipal market. I do not quite understand why Peter Lewis says that Urbank would improve the market, because essentially it seems to me that it would substitute for part of the market. Now it is true, theoretically, that Urbank would have been authorized to sell some of the securities, or all, that it acquired. We have had a good deal of experience with asset sales by the Federal Government, and they are not one of the happier parts of the budgetary process.

But consider the prospect. Here is an agency that ostensibly is outside the budget. It could sell assets. It has no particular reason for doing so. It can equally well sell its own securities, and is really geared to do that. My initial conclusion is that this institution will do little if any selling. It will increase the total amount of credit available to state and local borrowers, but it will not broaden the tax-exempt bond market as such. What it presumably will do is help small and high-risk borrowers. This is probably a very desirable activity.

There are something like 80,000 issuers of municipal bonds, I am told. Only 20,000 of these have ratings, the rest apparently are too small or too unknown to merit even a rating. They cannot easily go to the market. Many fortunately are taken care of by their local bank. Many small municipalities, I am told, enjoy lower interest costs than some of the large. But clearly for the average small municipality, the situation is not ideal.

If Urbank were to be injected into this picture, it presumably would do as the World Bank does and lend to everybody at the same

rate. This means to eliminate the risk premium. It is not very clear to me how far that is a desirable feature. After all, the risk premium paid by the small, unknown, high-risk borrower is quite possibly, so to say, "deserved." A good borrower probably can drive a good bargain with the local bank if not with the market. If it is a high-risk borrower, he should be penalized by paying a higher rate. If we do not do that, we penalize in effect the responsible borrower who does not get the preference in the market that he deserves.

The risk premium consists of two components. First, there is the actuarial probability of default. That somebody has to bear, whether the private bank or Urbank; it must be deducted from the nominal rate of return in order to arrive at the net or expected rate of return. I do not see that it is fair to forgive the weak, high-risk borrower that share of the risk premium. There is a second component of the risk premium that is usually charged by the private market for bearing the risk.

In other words, even though the investor does not expect a loss beyond the actuarial expectation, there is an additional premium because the market is a risk averter and wants positive compensation for bearing risk.

This second part of the risk premium, quite legitimately, Urbank could eliminate. There is nothing in the laws to say that Urbank needs to be a risk averter. It can be a risk neutral, as intermediaries theoretically are supposed to be, although I very much doubt that they are. Here is a legitimate area for, as it is sometimes called, socializing risk.

Let me now come to the main difference that I have with Peter Lewis. You will have seen that so far we really have no very great differences. But at this point, I suspect, I will incur not only his displeasure but also that of Mr. Levitt. I question the advisability of these proliferating Government-assisted credit programs. These are "off-balance sheet," or rather off-budget financing, techniques that have been developed in recent years to get money spent without showing it in the Federal budget.

This has several bad effects. One is that, properly stated, the Federal budget is running a bigger deficit than appears. A second is that demands are escalated in the capital market and are helping to drive interest rates sky high. We must not fool ourselves. It is not only inflation that accounts for 10 percent on an A-rated utility bond. It is the increase in demand by parties that previously did not

borrow, or did not borrow so much. This occurs in the face of changes in our tax system that have reduced the flow of saving.

We have shifted our tax system from growth as a principal objective to equity. We tax the rich and the corporations, we untax the poor. That is fine socially, but it has a negative impact on savings.

Let me describe briefly how these Government-assisted credit programs shape up at the present time. In fiscal year '70, they increased — I am speaking of the net amount outstanding — by $15 billion. In fiscal '71, they are scheduled to increase by almost $21 billion. Now that is not an equivalent increase in aggregate demand, because many of the things that are done via these credit programs would be done anyway. For instance, FHA and VA guarantees, in many cases, just make cheaper some expenditure that the homeowner unassisted would finance a little more expensively.

But an increasing proportion of the programs, and virtually all the newer programs — mostly in the housing area, but also other agencies — represent almost 100 percent incremental aggregate demand. A fair guess seems to be that of this nearly $21 billion additional expenditures, something like one-half to three-quarters incremental.

If, therefore, you want to know what the "true" budget deficit now is, one way of arriving at it is to add these amounts back into the budget. You then arrive, of course, at a very large deficit, $15 billion or more. If you want to be fair to the Federal Government and say, "Let us not look at the current deficit, let us look at the 'full employment surplus,' " that is now estimated in the range of a $5-10 billion surplus. When you take off possibly $15 billion of off-budget expenditures through the Federally-assisted credit programs, you arrive at a startling full-employment deficit.

All this is a tremendous drain on the capital markets. Here is Uncle Sam giving everybody hunting licenses in the capital market, in effect, and assuming apparently that this will increase the amount of game. It leads one to think that economics is probably an older profession than one realizes. We seem to be the lineal descendants of the alchemists who thought that they could turn lead into gold. We are trying to turn paper into resources. I prefer to think small, and to conclude that we have limited resources. By issuing these hunting licenses we are not really increasing the amount of capital available.

If we continue down this road, the result is foreseeable. Everybody will end up with a Federal guarantee and quite possibly with a Federal tax exemption on his borrowing. At the beginning of

World War II we had priority allocations for defense producers, and by the time everybody had a AAA priority certificate, everybody was right back where he started. The same could happen in the capital markets. This is the direction — fortunately only the direction — in which we are moving. That is why I am skeptical of every additional step taken in that direction. Urbank would be a very large step; EFA a small step. One has to accept the realities of the situation, but the smaller the step, the better I like it.

What is the really sensible solution? It is not to help people to borrow more. Subject to corrections of some inequities in the capital markets — and there I do not preclude action in the tax-exempt area, either by changing the law, or by giving some kind of a subsidy to weak borrowers — the main prescription at this time is to form more capital by saving more.

In the private sector, we ought to re-orient our tax incentives for households and corporations. Since I do not expect another major tax reform very soon, I would hope at least that when the Congress gets to estate and gift taxes, which might be this year or next, what is done will not all be done in a way that further reduces the supply of savings. Estate and gift taxes, as you know, are paid mostly out of savings and not out of consumption.

As far as the Federal Government is concerned, I think we ought to run surpluses, as Mr. Levitt said. I wonder whether he feels the same as I do about the probability of the Federal Government doing that. If one is skeptical, perhaps a better solution is to rebudget some of those off-budget expenditures. In that way, funds could be absorbed that might otherwise be given away in tax reductions or used for additional expenditures.

For state and local authorities, I do not share the view that the burden should be shifted to future generations. This is what General Eisenhower used to warn against. He wanted to repay Federal debt because he did not want to burden his grandchildren. On various occasions his economic advisors felt that they had to tell him you could not shift the burden to your grandchildren, subject to certain special considerations.

Now our states and municipalities are trying to do just that — shift the burden forward. It cannot be done in a meaningful sense. Any one unit of course can do it; as a nation, as an economy, we cannot. The best way to respond under those conditions is to increase our own supply of saving. Fortunately, everybody who does that will

immediately benefit by having more resources. I would advise the respective authorities to move in that direction before increases in interest rates compel them to do it.

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