

Solutions for Developed Economies

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In structuring this conference, the organizers have made the sensible decision to devote separate sessions to the problems of developing and developed countries. When attempting to confront unsustainable fiscal policies, developed economies are relieved of many of the economic constraints with which developing countries must deal. With greater wealth, more stable and credible governments, and more advanced financial systems, developed countries have the economic capacity to solve their fiscal crises through adjustments in tax and spending policies, in coordination with monetary policy. For developed economies, the question is not whether reform *can* be achieved, but whether it *will* be achieved.

My comments deal with the obstacles facing the adoption of sustainable fiscal policies in developed economies and consider how these obstacles can be overcome. Among my conclusions are:

- 1) Annual deficit measures, or trends in such measures, offer a poor gauge of a country's fiscal policy. This is especially true for economies undergoing significant changes in demographic structure, as is the case today for many developed countries.
- 2) U.S. fiscal policy is far more unbalanced than recent deficit trends suggest. Even if taxes and spending are adjusted to achieve a balanced budget in the short run, changing

demographics will still cause U.S. fiscal policy to be unsustainable. Other developed countries face similar situations.

3) Because current budget deficits are not a good indicator of the state of fiscal balance, policies to restrict them, such as a balanced budget amendment, are not a promising approach to the control of fiscal policy.

4) Budget control measures are further undermined by the general inaccuracy of revenue and expenditure forecasts.

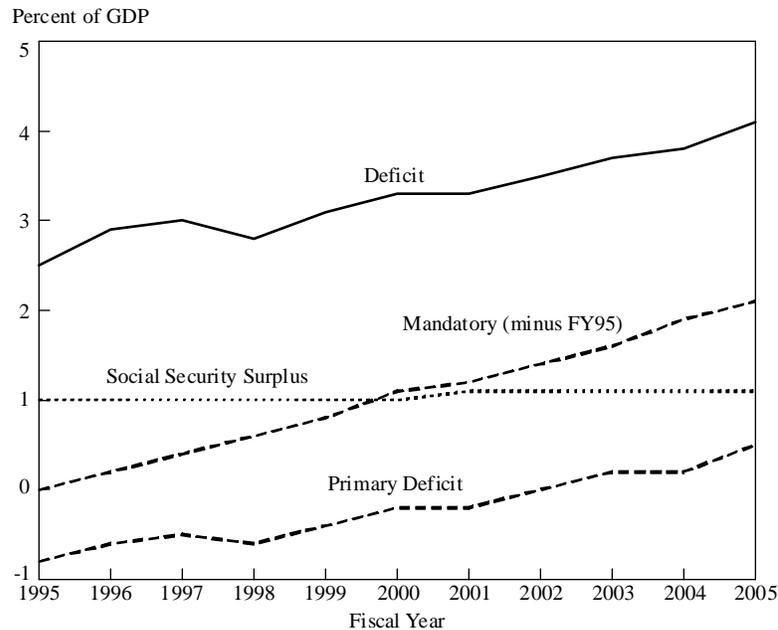
5) Privatization and federalism—shifting fiscal responsibilities to states or other lower-level governments—are two mechanisms for a national government to recognize the magnitude of its commitments and exert control over them. However, each of these options has its costs as well. Improved control may also be possible under existing schemes of federal provision with a reform in accounting methods.

In short, to provide the political will to deal with fiscal imbalances, we need to improve our accounting methods so that such imbalances are evident. But a solution does not lie in the complete delegation of responsibility to states, private entities, or ad hoc budget rules.

Assessing a nation's fiscal position

To illustrate the problems of evaluating fiscal policy using annual deficit measures, I use the case of the United States. However, these problems are common among nations. I begin with a standard review of the short-term fiscal situation. Chart 1 shows the most recent projections by the Congressional Budget Office¹ for the deficit and its components, as a share of GDP, for fiscal years 1995 through 2005. While the projections indicate a rising deficit as a share of GDP, the primary deficit, equal to the deficit less net interest payments, is currently negative and will remain so for several years. Even in fiscal year 2005, the primary deficit is projected at just 0.5 percent of GDP. The cash-flow surplus of the social security system contributes roughly 1 percent of GDP per year to this apparent fiscal

Chart 1
The Deficit and its Components



health. Observers often puzzle over which deficit measure—the total deficit, the primary deficit, or perhaps the primary deficit excluding the social security surplus—offers the best picture of fiscal trends. Alas, none of these measures provides an adequate measure of the course of U.S. fiscal policy.

To understand the problems in extrapolating these short-term deficit measures, it helps to consider the government's long-run budget constraint, which indicates that, for the government debt not to explode, the current stock of debt ($DEBT_t$) plus the present value of all future primary deficits (PD_s) cannot exceed zero:²

$$(1) \quad DEBT_t + \sum_{s=t}^{\infty} (1+i)^{t-s} PD_s \leq 0$$

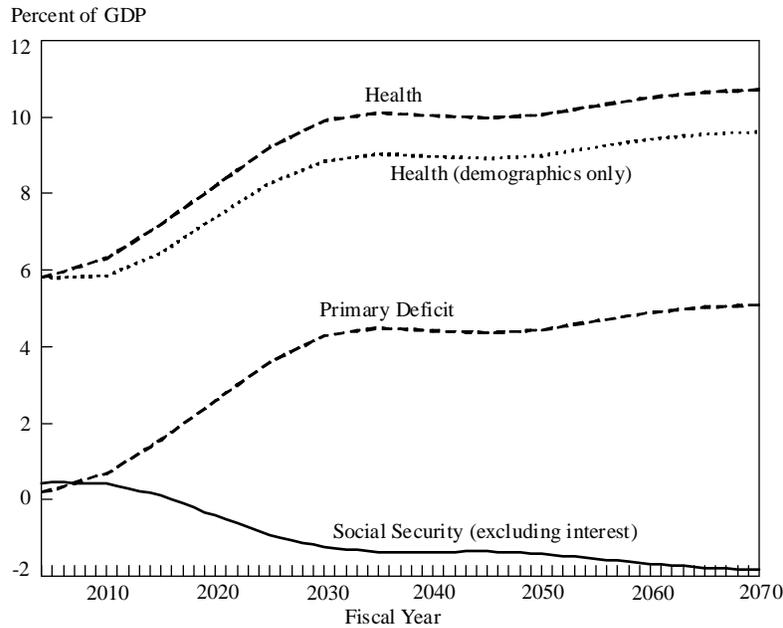
where i is the rate of interest. This expression indicates that long-run fiscal balance requires that, at some point, we must run primary surpluses to help service the growing national debt. It also tells us that long-run balance cannot be inferred from short-run values of the primary deficit, unless these values are informative about subsequent primary deficits.

Unfortunately, the small primary deficits projected for the near-term fail to reflect the very large primary deficits looming just after. For the United States, there are two major reasons for this. The first is the rapid growth in entitlement spending as a share of GDP. As pictured in Chart 1, this spending will grow to absorb an additional 2 percent of GDP over just the next ten fiscal years. Beyond the next ten years, this growth (as a share of GDP) is projected to continue, driven in part by increases in the real cost of medical services paid for by the government—Medicare and Medicaid. Second, even without increases in the real price of medical care, changing demographics is projected to increase the share of the population receiving these and other transfer payments, notably social security.

The longer-run contributions to the primary deficit of these two factors are enormous. Chart 2, adapted from a recent paper,³ depicts each of these contributions through the year 2070. Starting from the primary deficit of just 0.2 percent of GDP in fiscal year 2004 cited above, the chart projects the impact of changes in the OASDI balance and the percent of GDP accounted for by Medicare and Medicaid, assuming all other components of government spending and revenues remain constant as a share of GDP at their 2004 values, which already represents a significant reduction in discretionary spending from today's share of GDP.

The chart plots four series. At the bottom is the net cash flow, excluding interest (that is, payroll taxes less benefits), as a share of GDP, generated by the social security (OASDI) system. (These surpluses are smaller than those given in Chart 1, which include trust fund interest in receipts.) As this series shows, benefits will surpass payroll tax receipts during the second decade of the next century, with the retirement of members of the baby-boom cohorts. The top

Chart 2
Long-Run U.S. Fiscal Projections



series in the chart is Medicare plus Medicaid as a share of GDP, based on projections of the Health Care Financing Administration (HCFA) through 2030 and assumed to grow only as a result of demographic change (rather than increases in relative prices) thereafter.

Much of the attention devoted recently to projections for Medicare and OASDI has focused on how these adverse trends affect the viability of the respective trust funds, with the Medicare trust fund facing imminent insolvency and an OASDI crisis following a couple of decades later. However, the overall deficit is more relevant to fiscal balance than the state of individual trust funds. Combining these two contributions to increased net spending yields the projected primary deficit series in the figure, which grows steadily until around 2030 and hovers around 5 percent of GDP thereafter—higher than for any single year during the postwar period!

The remaining series in the chart shows the projected share of GDP absorbed by Medicare and Medicaid absent any increase in the relative price of medical care after fiscal year 2004. As this series shows, demographics alone will play a major role in the expansion of government health care spending in the next century. Even were costs controlled, primary deficits would still grow from near zero to around 4 percent of GDP as a result of demographic changes.

With a large initial stock of government debt and primary deficits growing over time, it is clear that these policy projections do not satisfy the expression for the sustainability of government policy given in equation 1. To indicate just how severe these projected deficits are, we can ask how large a permanent reduction in the primary deficit would be necessary to satisfy equation 1. That is, how large a combined permanent increase in revenues and reduction in federal spending would be needed to generate large enough primary surpluses in the future to service today's national debt. The answer is, nearly 5 percent of GDP, if we begin in fiscal year 2004.⁴ In today's dollars, this would amount to an annual cut in the deficit (excluding savings from reduced debt service) of around \$340 billion—far in excess of simply balancing the budget. The explanation is simple. In order to provide for the enormous liabilities we face in the next century, a trust fund will be needed—not just for the social security system, but for the federal government as a whole.

Of course, a permanent reduction in the primary deficit as a share of GDP is but one path to fiscal solvency. We could absorb a greater share of the contraction in the short run or, perhaps more likely, delay serious action until some later date. How we reduce deficits, and when, can have quite different impacts on the country's economic performance and the relative well-being of different classes of individuals. Looking at the long-run path of deficits helps us understand the extent to which fiscal policy needs adjustment. However, it can tell us relatively little about the tradeoffs among different adjustment paths; how cutting benefits compares to raising taxes, or how acting now compares to delaying action. To evaluate tradeoffs like these, we need a more detailed approach to measuring the burdens of fiscal policy.

The fiscal crisis from the perspective of generational accounting

As the recent heated Congressional debate about how to reduce the deficit illustrates, there are many ways to address the long-term U.S. fiscal problem, including taking no immediate action at all. To evaluate the alternatives, and help quantify the magnitude of change required, colleagues and I have developed an alternative to the deficit and its variants to measure the state of fiscal policy. We call this approach *generational accounting*, because it is based on the allocation of taxes and transfers to different generations.⁵ As in the deficit analysis just presented along with Chart 2, generational accounting starts with the long-run budget constraint given above in equation 1. But generational accounting goes one step further in asking not simply how large changes in taxes and spending must be to ensure a sustainable fiscal policy, but how different changes in taxes and spending, at different dates, will affect different groups in the population.

Generational accounting is motivated by the concerns traditionally voiced about the deficit—that it may unduly burden future generations and crowd out national saving. However, as measured, the current deficit is a poor gauge of the magnitude of such problems. The social security system offers a familiar illustration of this weakness. We know that the social security system is currently running cash-flow budget surpluses. Yet, if we accounted for the social security system on an accrual basis, as businesses now must do for their pension liabilities, the annual surpluses being run would turn into deficits, with the large positive annual cash flow being offset by even larger annual growth in liabilities, particularly to the large baby-boom cohorts now in the workforce. Even excluding the social security surplus from the calculated deficit, as is done for certain budget purposes, does not adequately adjust for the implicit burdens of the social security system.

While the problem of how to account for social security is generally recognized, it is symptomatic of a much more pervasive problem that is less well understood. Other transfer programs, such as Medicare, involve similar implicit liabilities not counted as national

debt. Taxes differ in the extent to which they impose current burdens on individuals, rather than future ones. In each case, there is a weak relationship, if any at all, between the policy's impact on the current budget and its impact on different generations and, by extension, on macroeconomic performance.

In theory, deficits cause crowding out to the extent that they increase perceived household wealth and consumption. But without knowing how a current deficit relates to the overall burdens on different generations, we cannot gauge the extent of crowding out; few believe, for example, that the current state of the social security system, cash-flow surpluses and all, is good for capital formation. By allocating the burdens of fiscal policy among different generations, generational accounting informs us not only about burdens, but about potential wealth effects on consumption. For example, it will reveal the distributional effects of a policy that expands social security without changing the current deficit, the different distributional effects of alternative deficit reduction policies, and the generational impact of structural changes in fiscal structure, such as a shift from income taxation to consumption taxation.

Table 1 illustrates the use of generational accounting to analyze the current U.S. fiscal situation. It presents the results of six simulations, corresponding to different fiscal policy paths. The first simulation is for the baseline, assuming no change in current fiscal policy. As already discussed, this policy is unsustainable. To measure the degree of this imbalance, the simulation assumes that the entire burden of this imbalance falls on future generations, in proportion to their income. That is, it implicitly assumes that whatever policy changes occur to satisfy equation 1, they are borne exclusively by future generations of individuals. This is not a prediction of how policy will change, but simply a measure of the present imbalance.

The two entries in the first column of Table 1 indicate the net lifetime tax rates—the present value of all taxes, less transfer payments, as a share of the present value of labor income—faced under the baseline scenario by two representative individuals—someone

Table 1
Generational Accounting for the United States

	Baseline	Balance: Income Taxes, 2001	Balance: Social Security, 1996	Balance: Income Taxes, 2016	Slower Health Growth	Balanced Budget in 2002
Percent Change		62.6	95.0	118.2		
Lifetime Tax Rate:						
Current generations	34.2	44.6	38.1	52.6	36.0	35.1
Future generations	84.4	44.6	38.1	52.6	70.4	72.5

Source: Auerbach et al (1995)

born today, and someone born in the future.^{6,7} The first of these tax rates equals the share of lifetime income that federal, state, and local taxes, net of transfer payments, will absorb, given current tax and transfer policies. The difference between the two tax rates represents the net increase in burden needed to achieve fiscal balance, if this entire burden is borne by future generations. If we keep in mind the likely behavioral response, the projected 84 percent tax rate on future generations indicates just how infeasible it would be to exempt all existing generations from the burden of fiscal adjustments. Indeed, as these lifetime tax rates are *net* of transfer payments, this simulation implies gross lifetime tax rates approaching 100 percent.

The next three columns in the table correspond to three alternative scenarios for achieving fiscal balance through permanent policy adjustments. For each simulation, the column presents the required permanent change in the policy variable needed so that the burden placed on members of future generations does not exceed that borne by current newborns. The first experiment is an increase in federal taxes in 2001. For this policy to achieve fiscal balance, federal tax revenues would have to increase by 63 percent. Because federal income taxes are just over 8 percent of GDP, this result is in line

with the result presented above of a required reduction in the primary deficit of about 5 percent of GDP. This policy would raise the lifetime tax rate of current newborns by about 10 percentage points.

The second policy option considered in Table 1 is a cut in social security benefits, effective immediately. Achieving fiscal balance through this route alone would require an almost complete elimination of benefits. For such a policy, the lifetime tax rates of current newborns would rise by less than under the previous one. A greater share of the total fiscal adjustment would be borne by older, existing generations, both because of immediate enactment and because social security benefits go to the elderly. On the other hand, delaying an income tax increase until 2016 would magnify the required annual increase, with the additional fifteen-year delay adding another 8 percentage points to the lifetime tax rates of current newborns.

The magnitude of these changes reinforces the message that the current U.S. fiscal imbalance is extremely large. The final two simulations in Table 1 provide further evidence. One shows the impact of exerting sufficient control over government health care expenditures so that their rate of growth is reduced by 2 percentage points per year relative to the baseline for the next ten years, with subsequent growth at the baseline rate along the lower trajectory. The second simulation approximates the impact of a balanced budget in 2002, achieved through phased cuts in nondefense spending (excluding social security) and entitlements, with all expenditure categories resuming their baseline growth rate thereafter. This is similar to the approach currently being taken in Congress, with the tax cut omitted. While both of these policy changes generally would be viewed as significant, neither comes close to eliminating the need for further adjustments, here assumed to be borne by future generations.

These results, that current policy will lead to large, essentially infeasible burdens on future generations, are not unique to the United States. A recent Organization for Economic Cooperation and Development (OECD) study of selected countries⁸ using the same generational accounting approach found the policies of all countries

considered to be unsustainable, in that the implied burdens on future generations would exceed those on current generations. In the group considered, the United States fell in the middle in terms of the magnitude of the imbalance, in a similar position to Norway, with Italy in worse shape and Germany and Sweden in better condition, as measured by the relative fiscal burdens on future and current generations.

Potential solutions: budget rules, privatization, and federalism

The United States and other developed countries face large fiscal imbalances. As just illustrated, delay in addressing these imbalances may ultimately necessitate draconian policies. This section considers the promise of alternative structural reforms to make fiscal policy more responsive.

Budget rules

Since the mid-1980s, the U.S. government has attempted to enforce budget discipline through a succession of budget control mechanisms, including the Gramm-Rudman-Hollings (GRH) Act of 1985 and the Budget Enforcement Act (BEA) of 1990. The most recent session of Congress included a near miss at the passage of a constitutional amendment requiring annual budget balance. The logic behind such rules is that they impose the collective will on individual legislative decisions, in much the same way that coercion is necessary to provide an adequate level of public goods like national defense. Without such rules, the intuition goes, there is a free-rider problem: legislators may wish to maintain fiscal discipline but cannot do so unilaterally without harming their constituents or their own reelection prospects.

Traditionally, economists have evaluated mechanisms like the balanced budget amendment in terms familiar to those who study monetary policy: as a tradeoff between rules and discretion. While the balanced budget amendment may impose desired discipline, it also reduces the scope for discretionary stabilization policy. By now, this aspect of the debate is well understood, and skepticism has

mounted about the usefulness of fiscal policy as a short-run stabilization device. But recent experience has demonstrated that there are serious flaws with simple budget control rules that have little to do with the reduced scope for discretion.

A very fundamental problem with *deficit*-control measures is that they are attempting to control the *deficit*. As discussed above, the current year's deficit may, and under present circumstances does, offer a poor measure of the state of fiscal policy. Without focusing on a much longer horizon, and taking a more detailed look at the distribution of fiscal burdens, a fiscal control measure is poorly equipped to satisfy its underlying objectives. As illustrated above in Chart 2 and Table 1, achieving a balanced budget in the short run will still leave the United States with a fiscal imbalance that, barring further short-term action, will be borne disproportionately by future generations.

An additional problem is that the imposition of deficit-control measures simply exacerbates the problem caused by the deficit's weak connection to fiscal balance, by encouraging legislators to balance the budget using "smoke and mirrors" and other "gimmicks" to reduce the short-run deficit while doing little about the long-run fiscal imbalance. There is evidence from the GRH period, for example, of greater use of asset sales and, more generally, a pattern of deficit reduction focused on the current year's deficit, which was the exclusive focus of the penalties imposed under GRH.⁹

Finally, deficit-control measures typically have been poorly designed to deal with forecasting errors. For example, under GRH, success in meeting a deficit target was judged *ex ante*, when a fiscal year's budget was formulated. The actual deficit, regardless of its magnitude, was irrelevant to the rule. Under the rules in operation since 1990, Congress is limited from taking action to increase the deficit relative to its baseline during a five-year budget window, but, again, faces no rules regarding the actual deficit level. Thus, if the deficit forecast for a particular fiscal year starts high and grows higher as that fiscal year approaches, this has no direct impact on Congressional action. Given the systematically optimistic deficit

forecasts of the recent past,¹⁰ rules that are not based on actual realizations will be biased toward higher deficits.

Privatization

In recent years, privatization of government industries has been a path for economic reform, first in Western countries with nationalized industries, such as the United Kingdom, and then in the countries of Eastern Europe. In the United States, privatization of this type is not a major issue, as government industrial activity already is minimal. Here, discussions of privatization focus on transfer payments, particularly those of the social security system. Based on results in Chile and elsewhere, some have argued that the United States can benefit by converting its social security system into a private, contributory pension scheme.

One must exercise care in translating results from developing countries into policy prescriptions for countries like the United States, for the arguments for privatization do not apply equally in all contexts. Here, there is little concern over the stability of the government. At least in the past, there has been no attempt to funnel contributions to social insurance programs into unproductive uses favored by government. The case for privatization in developed countries seems to be that it will permit them to rein in unrealistic commitments and permit a reduction in the magnitude of unfunded liabilities. That is, the case is a political one; the direct economic impact of privatization itself should be minimal.

At present, government social security systems typically involve significant redistributions within and across generations. The poor receive a better return on their contributions than do the rich, and generations that have retired or will do so soon have fared better than those that will follow. Privatization is a means of making these redistributions more explicit and, presumably, more difficult to preserve. Consider first the question of redistribution within generations. If individual payroll taxes were directed to an individual's private pension account, this would eliminate the government's ability to use a complicated benefit formula to redistribute from

workers with high lifetime incomes to those with low lifetime incomes. Such redistribution could be maintained, but it would require an explicit system of taxing high-income elderly persons to finance transfers to the low-income elderly. Absent such redistribution, there would be a direct linkage between payroll taxes and benefits, thus sharply reducing the labor supply disincentive effects of the present system.¹¹

Replacing a public pension scheme with a private one also entails making intergenerational redistribution more explicit, for it eliminates the illusions produced by cash-flow accounting of payroll taxes and benefits. In directing new contributions toward private pension accounts, privatization would reveal the true financial status of the social security system as one with accrued liabilities far in excess of its existing trust fund assets. This liability could be met through higher payroll taxes, as would automatically occur under the current government scheme, but these payroll taxes now would be explicitly unrelated to the taxpayer's own participation in the pension scheme.

Thus, privatization is a natural vehicle for reducing the redistributive effects of social insurance schemes. Its desirability, however, rests not only on the attractiveness of these objectives, but also on the availability of other alternatives. For example, one could make evident the social security system's accrued liabilities simply by changing its accounting rules, putting them on an accrual basis and requiring the government to include them in its annual deficit calculation. This is far simpler than revamping the country's social security system, and to be preferred if the main objective of privatization is to control commitments by making implicit liabilities explicit.¹²

Federalism

During the past year, there has been a strong move to reduce U.S. federal budget liabilities by shifting them to lower levels of government. For programs like Medicaid and Aid to Families with Dependent Children (AFDC), the objective has been to replace entitlement

programs, under which the federal government contributed a share of each state's expenses, with lump-sum grants to the states. In switching to lump-sum grants, the federal government also reduces its total level of spending, and therein lies the direct impact on its budget.

As with privatization, shifting more responsibility to the states does not, in itself, alter the fiscal landscape. If ultimate program costs remain the same, reducing federal contributions simply shifts the burden from one level of government to another. The issue, again, is whether the programs themselves will be altered by the shift in responsibility away from the federal government. In this instance, there can be real changes in economic incentives that contribute to a reduction in expenditures.

The literature on fiscal federalism focuses on the costs and benefits of locating government responsibilities at particular levels of government.¹³ A key advantage to local provision, and one that has been emphasized in the current debate, is the ability of state and local governments to be more responsive than the federal government to differences in preferences. By tailoring spending more to local objectives, so the argument goes, lower-level governments can get by with reduced resources with little or no loss in public welfare. A second advantage of assigning responsibilities to these governments, one that has not received as much attention, is that they have much more limited scope to impose burdens on future generations. Because of the ability of individuals to move across jurisdictions, any state or locality that seeks to burden its future residents with high taxes to pay for its current largesse will see the impact of this policy reflected in current property values, thus shifting the burdens back to current residents.

But a key disadvantage of state or local provision is its inability to internalize spillover effects on other jurisdictions. When these spillover effects are positive, with other jurisdictions gaining through a particular government's activity, too little of the activity occurs. For social programs like Medicaid and AFDC, a major potential spillover effect is subnational migration. Increasing transfers to the poor helps other jurisdictions fiscally by discouraging outmigration

and encouraging immigration of the poor. Thus, we should expect state and local governments to engage in less redistribution than would be socially desirable. A further problem with assigning the task of redistribution to state and local governments is that, even if the federal government provides compensating grants to poorer jurisdictions, there is no guarantee that the poor *in* these poorer jurisdictions will benefit as a result—it is harder for the federal government to get resources to the poor if it works through a state and/or local government as an intermediary.

These problems of spillovers and targeting help explain why redistribution traditionally has been viewed as a proper function of the federal government, either through direct provision or through the current practice of partial provision combined with restrictions on state and local choices. Shifting responsibilities to the states, therefore, is likely to lead to reduced spending on transfer programs, and perhaps also a change in focus of these programs away from the poor. Thus, they may well succeed in reducing transfers to the poor, but we should pause before labeling this change a “success.”

Conclusions

The fiscal imbalance facing countries like the United States is worse than current deficit levels may suggest, and external solutions to the problem have limited appeal. Budget control devices will only work to the extent that the deficit is an accurate measure of fiscal balance and can be forecast accurately; that is, they will work poorly. Privatization, if adopted to make intergenerational redistribution more explicit, is an expensive way to reform government accounting procedures. Federalism, as now being practiced, is a way to reduce redistribution to the poor, but perhaps by more than would be consistent with a national consensus.

Improved government accounting procedures would carry no such side effects. Reforms should include four changes in methodology, so that fiscal projections 1) recognize implicit liabilities; 2) consider longer range consequences; 3) reflect the uncertainty of forecasts; and 4) estimate the generational consequences of policy actions.

Such reforms would still leave our elected officials with the difficult job of adopting responsible policies, but would give them an advantage they currently lack of knowing what these policies are.

Endnotes

¹CBO (1995).

²For the sake of simplicity, I write this constraint here ignoring uncertainty and assuming a constant rate of interest.

³Auerbach (1994).

⁴The exact answer depends a bit on the relative magnitudes of the interest rate and the growth rate of GDP. If the interest rate exceeds the growth rate of GDP by 1 percentage point, the required permanent primary surplus is 4.80 percent of GDP. For a gap of 2 percentage points between these rates, the required surplus is 4.72 percent of GDP.

⁵See Auerbach and others (1991) and Kotlikoff (1992).

⁶All calculations in this table are based on an assumed real, before-tax discount rate of 6 percent and a productivity growth rate of 1.2 percent per year. Although the exact results are sensitive to variations in these two rates, the qualitative finding of a sharp imbalance is not.

⁷These lifetime net tax rates consider only taxes and transfer payments. They do not allocate the benefits of government purchases of goods and services. Thus, they should not be interpreted as measures of the net impact of government on individual welfare. Similarly, the change in welfare cannot be inferred from changes in these tax rates for policies that change the level or composition of government purchases.

⁸See OECD (1995).

⁹See Auerbach (1994) and Reischauer (1990).

¹⁰I have analyzed these forecasts in Auerbach (1994, 1995).

¹¹At present, because this linkage is very weak, it is rational for workers to view the payroll tax as having little offset in terms of additional benefits. See Feldstein and Samwick (1992).

¹²It also might avoid higher administrative costs, a phenomenon of the Chilean privatization experience (Diamond 1993).

¹³See the discussion of federalism in general, and issues of redistribution in particular, in Rubinfeld (1987).

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