

Deficit delusion

LAURENCE J. KOTLIKOFF

THE LAST FIVE YEARS have witnessed an enormous hue and cry over federal government deficits. No wonder. Since 1981 government debt held by the public has more than doubled. The current \$1.7 trillion in debt corresponds to over \$7,000 for each man, woman, and child in the country. The interest alone on this debt will total roughly \$600 per person this year.

The government has not blithely accumulated this debt. Rather, it has done so with considerable and sincere hand-wringing culminating in the unprecedented Gramm-Rudman legislation. This law mandates automatic spending cuts over the next five years if deficits exceed specified levels. The deficits have also captured the attention of the media and the American public to the point where deficits are now widely viewed as the country's number one economic problem.

Given the strength of concern over recent deficits, it is surprising that so much has been made of the numbers and so little attention has been devoted to asking what exactly these numbers measure—and whether they should be causing so much alarm. Indeed, the notion that these deficit numbers are meaningful indices of economic difficulties is so instilled in our collective perceptions that the thesis of this article will surely disturb many readers.

This thesis is that the deficit is an inherently arbitrary accounting construct that provides no real guide to fiscal policy. The fact that the definition of deficits is so arbitrary means that even adjusting the official numbers for inflation, the increase in government

assets, full employment, etc. will still leave an arbitrarily defined number that has no necessary relationship to the fundamentals of the government's fiscal behavior.

Such improved deficit accounting has recently been espoused in this publication by Robert Eisner and Paul Pieper.¹ In their view, there are right and wrong ways to measure deficits, and the government has simply chosen the wrong way. Their analysis usefully illustrates the variety of deficits one can define, based on officially defined assets and liabilities alone. But their discussion misses the more fundamental point that the official labelling of something as an asset or a liability is an arbitrary choice that has no general basis in economic theory, and certainly not in the economic theory that underlies the concern about deficit finance.

Part of the problem in recognizing and discussing the arbitrariness of the government's language is that this language is all we've got. Using words like "deficits," "taxes," and "spending" presupposes that these are well-defined concepts, which they are not. Hence, one has to use more neutral terms, such as "receipts" and "payments," to avoid the circularity inherent in using ill-defined terms and to emphasize their lack of definition.

Labelling receipts and payments

The government can be described in terms of this more neutral language as simply an institution that, over time, takes in receipts and makes payments. The only real constraint facing the government is that its receipts (including those from printing money) be sufficient to cover its payments. In the most basic terms we can view the government as consisting of a single individual, called the Treasurer, who is in charge of the government's interest-bearing checking account. All monies deposited in the account, including accrued interest, are receipts, while all checks written correspond to payments. The Treasurer decides how much money to take in as receipts and how much to pay out. But the Treasurer isn't free to bounce checks.

The Treasurer's choice of labelling specific receipts as "taxes," "borrowing," "receipts from sale of assets," "receipts from printing money," or "interest received" is entirely arbitrary. Equally arbitrary is his choice to label specific government payments as "consumption," "purchase of assets," "transfer payments," and "interest

¹ Robert Eisner and Paul J. Pieper, "How To Make Sense of the Deficit," *The Public Interest* No. 78 (Winter 1985), pp. 101-118.

and principal payments." The particular labels chosen by the Treasurer should be of complete indifference to the citizens, who are concerned not with what receipts and payments are called, but rather with the difference over their lifetimes in their payments to the government and their receipts from the government.

To see how arbitrary is the choice of labelling, consider the following example. Suppose that the Treasurer has chosen labels for all current and future receipts and payments with the exception of those involving Mr. X in the two years when Mr. X is age forty and age fifty. At age forty Mr. X pays the government \$1,000, and at age fifty Mr. X receives \$1,500 back from the government. Assume that the \$500 equals ten years accumulated interest on the \$1,000.

The Treasurer might label the \$1,000 receipt "taxes" from Mr. X and the \$1,500 repayment "transfer payments" to Mr. X. Alternatively, he could label the \$1,000 receipt "borrowing" from Mr. X and call \$500 of the \$1,500 payment "interest payments" and the rest "repayment of principal." A third possibility is to label \$500 of the initial \$1,000 "taxes" and the other \$500 "borrowing." Half of the \$1,500 subsequent payment from the government could then be labelled "transfers" and the other half "repayment of principal plus interest." A fourth possibility is the Treasurer's labelling the \$1,000 net receipt as "borrowing" of \$2,000 less "transfer payments" of \$1,000, and the net payment of \$1,500 could be labelled "interest plus principal payments" of \$3,000 less "taxes" of \$1,500. All of these possibilities have a significant impact on that which we call the "deficit," as is shown in Table I.

Since the net receipts and net payments of the government are identical in each of the four cases, the real behavior of the economy will be the same in each case. However, the reported deficit will

Table I. Government "Deficit": Four Cases

Case	Labelling		Impact on "Deficit"	
	Mr. X's \$1,000 Net Payment	Mr. X's \$1,500 Net Receipt	When Mr. X is Age 40	When Mr. X is Age 50
1	"Taxes"	"Transfers"	− \$1,000	+ \$1,500
2	"Borrowing"	"Interest + Principal"	No Change	No Change
3	\$500 "Borrowing"	\$750 "Interest + Principal"	− \$500	+ \$750
	\$500 "Taxes"	\$750 "Transfers"		
4	\$2,000 "Borrowing"	\$3,000 "Interest + Principal"	+ \$1,000	− \$1,500
	\$1,000 "Transfers"	\$1,500 "Taxes"		

differ. In Case 1 the labelling leads to a \$1000 smaller deficit when Mr. X is forty and a \$1,500 larger deficit when Mr. X is fifty. Case 2 is the base case in which the reported deficit is unchanged. Case 3, like Case 1, involves an initially smaller reported deficit and a subsequently larger reported deficit. Case 4 produces the opposite result; with this labelling the government reports a \$1,000 larger deficit when Mr. X is forty and a \$1,500 smaller deficit when Mr. X is fifty.

It is important to understand that the example doesn't hinge on the \$1,500 equalling \$1,000 plus ten years of interest. Suppose Mr. X's receipt at age fifty equals \$2,000. If \$500 of this \$2,000 is labelled "transfers," then we are left with the same question of how to label a \$1000 payment of Mr. X at age forty and the remaining \$1,500 receipt at age fifty.

These examples, by the way, have nothing to do with the issues of measurement raised by Eisner and Pieper. The same problems of arbitrary labels would arise if one made all their recommended measurement adjustments.

Of course, the Treasurer in this economy is free to play the receipt-and-payment-labelling games with all the country's citizens. It should thus be clear that the Treasurer is able to engage in exactly the same economic policy while reporting essentially whatever amount of debt or surplus he prefers. It should also be clear that, since the economy is not affected one iota by the change in labels, economics *per se* will provide no guide to the choice of labels.

Stated differently, from the perspective of economics the choice of labels is totally arbitrary, as is the reported level of government debt. The logical conclusion to draw from this is that one cannot learn anything about the underlying economy by considering only the size of its officially reported debt.

The Social Security "tax"

Lest one view the prior discussion as purely academic and somehow irrelevant to the United States, consider the labelling of the U.S. Social Security system, and, more specifically, the use of the word "taxes" to describe the FICA payments you and your employer make to the government. Why is the word "taxes" used? It is used because the government arbitrarily chose that word back in 1936 or thereabouts. But suppose we label these payments to the government differently. Let's label them "loans" from you to the government. Let's also label Social Security benefit payments "return of principal plus interest."

Note that, from your point of view, the new terminology is not completely foreign. With the new jargon you can now think of yourselves as lending money to the government (in the form of Social Security contributions) during your working years and receiving principal plus interest (in the form of Social Security benefit payments) during your retirement.

Surely this sequence of payments and receipts is very similar to those associated with purchasing a Treasury bond. When you purchase a Treasury bond or other security you make payments to the government now in exchange for receipts from the government later. Hence, from your point of view, your payment of what is called Social Security “taxes” is, in most respects, equivalent to your purchase of a government liability. While the return and risk properties of your invisible Social Security bonds differ from those of official government bonds (which, by the way, are subject to considerable revaluation risk), such a difference provides no basis for labelling one set of payments to the government “taxes” and the other set of payments “loans.”

Let’s now make the invisible Social Security bonds visible by supposing that the federal government, starting at the inception of the Social Security system, had also adopted the language of lending and borrowing to describe its flows of payments from and to the public sector—and, indeed, had issued explicit Social Security bonds to the public in exchange for Social Security contributions. We are supposing then that the Social Security system sends a piece of paper marked Social Security Bond to each worker in exchange for his or her Social Security contributions.

These pieces of paper would give the worker formal title to the return of his taxes plus interest as determined by the government. The interest paid on these Social Security bonds would not necessarily correspond to a market rate of return. Nor would the amount of interest be guaranteed; rather it would depend on Social Security’s financial condition, in just the same way that, under current language, what are called Social Security “benefits” are not guaranteed and may be adjusted by Congress in light of Social Security’s financial projections. The value of a worker’s or retiree’s Social Security bonds, like the value of Treasury bonds, would correspond to the risk-adjusted expected present value of the future return of principal and interest.

Consider now the impact on the government’s measure of official debt of switching from the “tax”/“transfer” language to the language of “lending” and “repayment.” Table II reproduces a table

Table II. Federal Net Liabilities and Social Security Debt
(Billions of 1985 Dollars)^a

Year	Gross Financial Liabilities		Net Financial Liabilities	Tangible Assets	Social Security Debt	Total Net Debt ^b
	Book Value	Market Value	Market Value	Replacement Cost		
1950	1,053	1,060	864	494	319	750
1955	1,000	986	772	730	1,401	1,529
1960	944	936	712	711	1,742	1,812
1965	998	970	691	759	1,889	1,880
1966	1,002	981	686	758	1,984	1,975
1967	1,021	984	692	770	1,803	1,798
1968	1,032	989	680	775	2,225	2,205
1969	998	933	617	787	2,096	2,008
1970	1,010	992	653	776	2,675	2,636
1971	1,032	1,028	683	768	3,146	3,144
1972	1,044	1,028	672	771	3,330	3,315
1973	1,053	1,025	618	798	4,104	4,007
1974	1,040	1,014	553	825	4,528	4,333
1975	1,131	1,119	679	815	4,826	4,761
1976	1,224	1,240	772	827	4,986	4,996
1977	1,278	1,262	780	860	5,343	5,320
1978	1,335	1,280	734	889		
1979	1,344	1,279	606	938		
1980	1,391	1,304	598	966		

^a Source: 1982 Economic Report of the President, Table 4.5.

^b This column equals the sum of columns three and five less column four and less the Social Security Trust Fund.

from the *1982 Economic Report of the President*, except that all figures are in billions of 1985 dollars. The first column shows the book value of gross federal debt. If we make one of the adjustments advocated by Eisner and Pieper and measure debt at market rather than book value, we arrive at column two. Subtracting column four, which gives the government's tangible assets, from column three, which gives its net financial liabilities, indicates the government's official net debt (or, in the case of a surplus, official net worth). It is this figure that Eisner and Pieper view as the correct series for government debt.

The fifth column in the table presents estimates of the value of invisible Social Security bonds. In 1977, the last year for which the data is available, the estimated value of Social Security debt was \$5.34 trillion. In contrast, the value of official net debt (net financial liabilities less tangible assets) as reckoned by Eisner and Pieper

was actually negative \$80 billion in 1977—that is, on its official account the government had an \$80 billion surplus in 1977. But including Social Security debt less Social Security's trust fund along with net official debt would enormously alter one's notion of the correct figure for government debt, changing the 1977 debt from negative \$80 billion to the \$5.32 trillion figure in column six. With this change in bookkeeping, the government would have reported official deficits, measured in 1986 dollars, in the respective years 1969 and 1970, of \$628 billion and \$508 billion! During the period 1971 through 1977, official deficits would have averaged \$363 billion.

Presumably, had the nation become accustomed to living with such large deficits in the 1970s, there would have been considerably less anxiety about policies that increased reported deficits by only \$200 billion in the 1980s.

A payment by any other name

One response to the Social Security illustration is that, unlike the purchase of official government bonds, the purchase of Social Security bonds is not voluntary. While this is true, the fact that payments to Social Security are mandated by law is likely to have either minor economic implications or none at all. Consider first the case in which there is no such legal mandate and in which Social Security bonds pay the same return as long-term official government bonds. For those households that have enough liquid assets on hand (or can borrow against their illiquid assets) to purchase the Social Security bonds, such a purchase will not affect their economic opportunities or their economic choices. A number of recent studies indicate that the overwhelming majority of American households are not liquidity constrained and could afford to make such a purchase.

Next consider the case in which Social Security pays less, after adjusting for risk, than the market rate of interest on official government bonds. In this case we can simply relabel Social Security's receipts and payments on its bonds as constituting the sum of: (1) "the purchase of Social Security bonds"; (2) "the repayment of principal plus market interest"; and (3) a "tax" equal to the difference between the market rate of interest on official bonds and the rate of interest Social Security can afford to pay. While all Social Security participants will be unhappy because of the "tax" component of the system's return, the economic situation of nonliquidity-constrained participants will not be affected.

In sum, while the voluntary nature of a government's receipts might provide a basis for distinguishing "borrowing" from "taxes"

in a liquidity-constrained economy—that is, one in which most people could not afford such a voluntary purchase—the American economy is very far from being liquidity constrained. Indeed, the stock of U.S. private wealth currently exceeds \$12 trillion, while Social Security taxes are only \$265 billion. Hence, the private sector has in assets more than forty-five times the amount of funds needed to purchase this year's Social Security bonds.

Perhaps the reason current labelling practices are viewed as meaningful by most economists and other students of economics is that most such individuals alive today were brought up on the very simple, if not simplistic, short-run Keynesian model. In this model, it is current income that is the driving determinant of the decision to consume and save, and household assets as well as future income play a quite negligible role. The Keynesian model thus effectively assumes that households are either partially or completely liquidity constrained.

The irony is that the Keynesian model generally suggests that “deficits” are good things—indeed the more the better. Despite this, most economists along with the rest of the country view current federal “deficits” with considerable trepidation.

The model underlying the concern with labelling is quite different from the Keynesian model. It is the Life Cycle Model of Saving put forward by Nobel Laureate Franco Modigliani, Robert Brumberg, and Albert Ando. In the Life Cycle Model, assets and lifetime earnings, not current income, play the key role, and agents are therefore not liquidity constrained. Unfortunately, this model (or any other neoclassical model) provides no guidance whatsoever as to the proper labelling of government receipts and expenditures. Stated differently, the Life Cycle Model predicts the exact same economic events regardless of the choice of labels, and one can infer nothing about the stance of fiscal policy based simply on information about the amount of official debt.

“Debt” policy in the Life Cycle Model

In the Life Cycle Model, fiscal policies have real effects on the economy not because they are labelled one thing or another, but because they either (1) alter economic incentives, (2) redistribute within generations, or (3) redistribute across generations. It is this third issue, intergenerational redistribution, that underlies the concern about “deficits” from the perspective of the Life Cycle Model.

Intergenerational redistribution occurs whenever a government policy increases the present values of payments-less-receipts it makes

to some generations at the expense of reducing the present value of payments-less-receipts to other generations.

Consider, for different generations, what happens to the present value of lifetime payments-less-receipts when the government runs a policy it describes as a "tax cut," financed in the short run by what it calls a "deficit" and in the long run by what it calls a "tax increase" to pay the interest on the accumulated "debt."

Older generations are made better off by this policy. In the short run they have to pay less to the government, and at the time the tax increase occurs they may be dead, or if they are still alive they will only have to make the larger payments for a relatively short period of time. Hence, the present value of their lifetime receipts from the government less payments to the government increases.

Middle-age generations may also be better off. If, for example, the tax is assessed on earnings, middle-age generations make smaller payments to the government during the tax cut period, but may escape through retirement most or all of the subsequent larger payments arising from the tax increase.

Younger generations will, in contrast, be worse off because paying the higher amount of taxes for most of one's life will more than outweigh (in present value) the temporarily lower payments. Future generations will also be worse off because they will face higher net payments throughout their lives.

Thus the "tax cut" policy redistributes income from young and future generations to the currently middle-age and older generations. But note that the same fundamental policy could have been achieved with the government announcing a "surplus," rather than a "deficit" at the beginning of the policy. Rather than cutting taxes, the government could have increased transfer payments to middle-age and older generations to leave them in the same position as under the tax cut. For younger generations, the government could have announced a very major tax increase in the current period, coupled with future transfers to these generations that would have left the present value of their receipts-less-payments unchanged. Since future transfer payments don't show up on the government's current books, the government would announce a "surplus" with this change in labels. Hence, the "tax cut" policy could be relabelled a "tax increase" policy with no impact whatsoever on the policy's intergenerational redistribution.

However, intergenerational redistribution from younger and future generations to older generations does lower national saving because older generations will increase their consumption by more

than younger generations lower their consumption. The reason is that older generations have fewer years left to live and consequently have fewer years over which to consume the additional resources. Younger generations, on the other hand, spread their reduction in lifetime resources over more years; hence their response to a decline in the present value of net lifetime receipts is to lower their consumption this year somewhat, knowing they will also lower their consumption for many years in the future. In the jargon of economists, older generations have larger marginal propensities to consume than younger generations.

Economists and others in the United States should indeed be concerned about this "crowding out" process. Since 1980 we have been saving only 5.1 percent of our net national product (NNP). In contrast we saved 7.7 percent of NNP in the 1970s, 8.7 percent in the 1960s, and 8.8 percent in the 1950s. Last year's saving rate of 4.4 percent is 50 percent lower than the saving rate of the 1950s.

Passing the intergenerational buck

Once one becomes attuned to thinking about debt policy in terms of intergenerational redistribution, it becomes clear that a variety of government policies, many of which have no direct effect on reported government "deficits," transfer resources from later to earlier generations. One somewhat subtle mechanism is running an unfunded "pay as you go" Social Security system.

In this Ponzi scheme younger working generations pay money to Social Security, which then hands the money over to older, retired generations in the form of "retirement benefits." Every generation pays for the retirement benefits of the previous generation—with one exception: At the initiation of the program, the first generation receives benefits without having had to finance the retirement of its immediate predecessors. This generation receives a windfall at the expense of younger and future generations who receive, on average, a lower rate of return on their Social Security contributions than they would if they had invested these funds privately.

While many of the big winners from Social Security are already deceased, there is still significant intergenerational redistribution underway. Middle-income household heads who were born in 1930 are predicted roughly to break even from the system. In contrast, middle-income household heads in the cohort to be born in 1990 are projected over their lifetimes to lose, on net, roughly \$60,000 in present value as a consequence of participating in Social Security.

Another subtle intergenerational transfer mechanism is a change

in the tax base that shifts the burden of taxation from older to younger generations. An example here is switching from an income tax that taxes the capital income of the elderly as well as the labor earnings of the young and middle aged to a wage tax that hits only the young and middle aged. Increases in the progressivity of the income tax represent a variant of this type of fundamental debt policy. Switching from a less to a more progressive tax on earned income shifts more of the tax burden onto middle-aged and younger workers whose annual incomes are larger than those of retired elderly for whom taxable income consists primarily of the return on savings.

Perhaps the most subtle mechanism of intergenerational redistribution is government policy that lowers the market value of financial assets. Since older generations are the primary owners of assets, a reduction in asset values reduces the consumption opportunities of the elderly; at the same time it expands the consumption opportunities of younger generations who, through time, can purchase these assets from older generations at a lower price.

An example of such a policy is reducing investment incentives, which, by the way, is part of the president's tax reform proposal. Since investment incentives in the United States are effectively restricted to new investment, old capital—capital that has been fully or partially written off—sells at a discount reflecting the preferential tax treatment available to new capital. A reduction in investment incentives means a smaller discount on old capital, that is, a capital gain to owners of old capital. This capital gain accrues to older generations, and young and middle-aged generations are worse off because they must pay a higher price to acquire claims to the economy's capital stock.

What numbers should we look at?

If our official debt numbers are inherently arbitrary and provide no real guide to the extent and nature of fiscal policy's intergenerational redistribution, what numbers should one consider in assessing the government's fundamental debt policy? The answer is that we need to examine directly the lifetime budget constraints of different generations and ask whether government policies have expanded the lifetime consumption opportunities of older generations at the price of reduced lifetime consumption opportunities of younger and future generations. The answer to this question bears no relation to how we label particular receipts and payments between the private economy and the government. Accounting doesn't matter when looking at a generation's budget constraint, because the

bottom line is how much the generation can afford to consume; this depends on the generation's lifetime receipts from the government net of payments to the government, not on how particular receipts and payments are labelled.

Describing changes in the lifetime budget constraints of all current and successive generations is not easy. First, there are an infinite number of generations to think about. Second, there is great diversity within a generation. Presumably, one could address these concerns by presenting projected lifetime budget constraints for several representative generations and family types within each generation.

A third and much more difficult problem is accurately assessing the expected values of future receipts and payments of current and future generations. In forming such expected values one needs to take into account the likelihood that the government's policy will change in the future. Eisner and Pieper argue that such calculations would be subject to "huge uncertainty" since they involve future receipts and payments that are, in the words of the U.S. Treasury, "highly speculative." While it is easy simply to ignore numbers that are difficult to estimate, ignoring these numbers in considering fiscal policy is akin to navigating in Los Angeles using a highly detailed map of New York rather than a poorly detailed map of Los Angeles.

Reagan's "debt" policy

Having outlined these various mechanisms for running true economic debt policies and having argued that one cannot gauge these policies by looking at official debt numbers, it is time to look at the reality of recent economic debt (intergenerational transfer) policy. The Reagan personal income tax cuts have certainly enhanced the lifetime budgets of older generations at the expense of younger generations. But, up to the present, the magnitude of this intergenerational redistribution appears small when set against the massive intergenerational redistribution in the 1960s and 1970s associated with Social Security.

A second feature of Reagan's fiscal policy is the sizeable investment incentives passed in 1981. As just argued, this policy generates capital losses to owners of existing (old) capital and constitutes an economic surplus policy. The magnitude of this redistribution, when set against the redistribution from the tax cuts, appears to correspond to having postponed the tax cuts by roughly one year.

The reform in 1983 of the Social Security system constitutes a third significant fiscal policy altering the intergenerational resource distribution. As late as 1977, Social Security's long-run finances

seemed fairly secure. But the ensuing recessions and other economic and demographic events changed the long-run as well as short-run picture. The 1983 reforms made very substantial cuts in the future benefits of all current young generations. The new Social Security law gradually raises the retirement age to sixty-seven and envisions, through the process of bracket creep, the eventual income taxation of Social Security benefits of all retirees, not simply high-income retirees as is now the case.

For current young generations these legislated long-term cuts in Social Security benefits are sizable when compared, for example, with the tax savings they have enjoyed to date from the Reagan tax cut. Hence, this policy also represents a significant economic surplus policy, since it is reducing the welfare of current young generations while helping assure that future generations will not have their Social Security contributions substantially raised.

My rough assessment is that the Reagan fiscal policy has to date generated, on net, a small economic surplus, although this assessment could change in the near future depending on policy decisions still to be made. However, whether one views the policy in toto as transferring to older or to younger generations, it is clear that the national hysteria concerning "deficits" has been predicated on a set of numbers that have little or no relationship to the issue of fundamental concern. Asserting that the deficit numbers "have no clothes" is not the same as asserting that all is fine in our economic house. On the contrary, it appears clear that the country is experiencing a long-term decline in saving which may well be the result of the unreported but enormous economic deficits associated with Social Security and other unfunded federal government retirement programs in the last three decades.

Given the nation's extremely low saving rate, the current concern about deficit policy is welcome, albeit, as it appears, about ten years too late. However, since our current fixation is on the official budget deficit and not on the fundamental course of intergenerational transfer policy, the concern is not likely to last. For once the official deficit number is fixed, through either a real or an accounting policy, the public and government will lose interest in the question of debt, and indeed may return to more of the kinds of *hidden* debt policies of the last thirty years. It is high time to remove the blinders. Fiscal illusion is a very real problem; it not only blinds us to current fiscal reality, it also leaves us little perspective on the real alternatives for improving our economic future.