Budget Deficit Mythology

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> *Interviewer: So what do you say to all those political and private leaders who worry that a continuous string of high deficits will require a huge amount of government borrowing that will crowd out private credit demands, force interest rates back up again and threaten to abort the recovery?*
>
> *Norman Ture:* Poppycock *is a good word. I haven't used that word in ages.* Balderdash *is equally appropriate. That reasoning is without any basis in fact or analysis.*[1]

Such blanket assurances about the effects of prospective deficits are, of course, monkeydoodle. For there is indeed a basis in both fact and analysis for worrying about a policy of permanent deficits. It can be found in writings of economists from all persuasions: Keynesians such as Walter Heller, George Perry, and Lawrence Klein; monetarists such as Milton Friedman and members of the Shadow Open Market Committee; rational expectationists such as Thomas Sargent, Neil Wallace, and Preston Miller.[2]

Although most people concede that there is a basis for worrying about permanent deficits, Ture still would have plenty of company if he were arguing that, as a particular case, the current budget situation is no cause for alarm. And those who would agree with him could be right for a few reasons. First, not enough observations are yet available to determine whether the government has embarked on a new policy of permanently higher deficits or whether these higher deficits are temporary and will be lowered by future spending cuts and tax increases. This distinction between permanent and temporary deficits is important because people's actions depend on the whole path of deficits they expect in the future. Second, economics is not an exact science: no one really knows whether deficits of the size recently experienced are large enough to seriously damage the economy, even if they are permanent. We can only state there is a significant risk that they will.

Although these are some valid reasons to question whether the current budget situation is a cause for concern, many other arguments which have surfaced in support of current budget policy[3] have the status of myths: they simply do not hold up under close scrutiny. By identifying five of these major myths and by presenting counterarguments to dispel them, this paper seeks to clear up some of the confusion about current budget policy so that we can better assess what needs to be done.

Myth 1 Our large budget deficits have been caused by a weak economy, and they will go away as the economy recovers.

As evidence, supporters of this myth use projections based on the administration's fiscal 1984 budget or the

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[1] From "Do Federal Deficits Really Matter?" *U.S. News and World Report*, March 7, 1983, p. 86. Mr. Ture was the Treasury Department's Under Secretary for Tax and Economic Affairs from March 1981 through June 1982.

[2] See, for example, Heller and Perry 1983 and Klein 1983; Friedman 1981 and Shadow Open Market Committee 1983; Sargent and Wallace 1981 and Miller 1983a. Klein (1983), for instance, called the size of projected deficits "obscene."

[3] By *current budget policy* I mean those government policies of taxes and expenditures in effect at the beginning of 1984. As defined here, current budget policy does not incorporate any proposals for deficit reductions which have yet to be enacted, such as those in the administration's fiscal 1985 budget. Fuller discussion is provided in this paper's section on "Determining Current Budget Policy."

congressional budget resolution (First Concurrent Resolution on the Budget for Fiscal Year 1984). Both indicate deficits will decline sharply over the next few years (U.S. Congress, CBO 1983, p. 100).

Granted, a weak economy did contribute to the growth in deficits over the past few years, and a continuation of the current economic recovery would restrain their growth in the future. However, this myth vastly overstates the extent to which the recession accounted for the growth in deficits and the extent to which a continued recovery would reduce them. Moreover, the myth fails to recognize the primary contribution of policy actions to prospective deficits. Close scrutiny of the budget reveals that policy actions which raised spending and lowered taxes contributed importantly to the growth in deficits. Because of these actions, deficits will remain about 5 percent of GNP (roughly $200 billion) even if the economic recovery continues (Beeman and Van de Water 1983).[4]

Measuring the Effects of Policy on Deficits

In order to measure the contribution that policy actions have made to projected deficits, it is necessary to isolate their effect from those budgetary effects caused by changes in economic conditions. One way of doing this is to estimate what the budget would be in any given year under some standard set of economic conditions. If we then compare these standardized budgets for any two given years, the differences between these budgets should be due primarily to new policies enacted between those years.[5]

To confront the first myth, this method is applied to compare budgets in two years: fiscal 1981, representing the budget just before the current administration's policies took effect, and fiscal 1986, representing the budget under current policies.[6] The actual budget in fiscal 1981 is compared to the budget projected in fiscal 1986, assuming that current policies are continued and that economic conditions return to those of 1981. (Fiscal 1986 is chosen to represent the budget under current policies because it is easier to standardize for economic conditions using that year; the choice has little, if any, bearing on the results.) Because economic conditions are being held constant, the differences in these two budgets should be due primarily to differences in policies enacted since fiscal 1981.

Some would object that we can have little faith in an analysis which relies on a point forecast of a very uncertain quantity several years into the future. But the uncertainty of budget forecasts stems mainly from the uncertainty of future policies and future economic conditions. In this exercise, however, there is no uncertainty about either because they are both taken as given. The forecast is little more than a technical exercise which asks, what would the budget be *if* current policies were continued into the future and *if* economic conditions were to resemble those of fiscal 1981?

☐ *Determining Current Budget Policy*

The difficult part of this exercise is to resolve what current budget policy is. This part is also crucial because it determines the proportion of deficits caused by policy actions, as opposed to a weak economy, and it indicates the amount of deficit-reducing measures required to achieve a balanced budget for any given economic conditions.

For those who promulgate this first myth, current policy is commonly taken as the programs and taxes proposed in the summer of 1983 in either the updated fiscal 1984 administration budget or the fiscal 1984 congressional budget resolution. But neither of these is current policy. The administration budget included proposals to curtail domestic spending, such as a reduction in job training programs and a freeze in federal salaries—proposals that Congress flatly rejected. The congressional budget resolution, meanwhile, called for spending cuts of $12 billion over the next three years—cuts that Congress was unable to legislate during the 1983 session.

Most significantly, both the administration and congressional budgets for fiscal 1984 contained sizable tax increases, which formed the major part of their respective deficit-reduction measures. Yet none of these proposed tax increases is likely to be enacted soon. In 1983 the administration declared that it no longer supported its own tax contingency plan, which it had predicted

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[4] In this paper all budget figures reported are calculated on a *unified,* or cash, basis rather than a *National Income Accounts,* or accrual, basis. The choice of one basis over the other does not affect my conclusions.

[5] Expenditures and revenues can vary due to noneconomic factors as well. For instance, demographic changes resulting in a larger fraction of the population moving into the over-62 age bracket will cause increased expenditures for Social Security. Over a period of a few years, however, noneconomic factors will probably account for little change in expenditures or revenues. Even if they account for much of the forecasted deficits in the next few years, that would also contradict those who claim the deficit problem will disappear as the economy recovers.

[6] Fiscal years run from October of the previous calendar year through September of the current calendar year.

would take effect in fiscal 1986. (Moreover, no new major tax proposals are included in the administration's fiscal 1985 budget.) Congress, meanwhile, failed to meet any part of its own instruction to raise taxes by $73 billion over the next three years.

The bottom line is that we cannot assume that current budget policy is embodied either in fiscal 1984's administration budget or in that year's congressional budget resolution. Both budgets give an overly optimistic outlook on the deficit because both assume spending cuts and tax increases which have little chance of being enacted. Nor can we assume that the administration's fiscal 1985 budget is current policy, for it contains proposals that Congress has yet to consider or enact.

☐ *Recent CBO Projections Reflect Current Policy*

One good candidate for current policy is what is assumed in recent Congressional Budget Office (CBO) projections for fiscal 1984 through 1988 (Beeman and Van de Water 1983). These projections better reflect actions taken to date. They assume no tax increases. And although the projections were made before the 1983 congressional session was completed, the omissions of actions subsequently taken seem to be minor and tend to be largely offsetting.

Policy Contributions to the Deficit

In order to determine how much of the increase in projected deficits is due to policy actions since fiscal 1981, I adjust the recent CBO projections for 1986 to reflect 1981 economic conditions. (For a detailed explanation of how these adjustments are made, see the note in Table 1.)

Comparison of the first and second columns of Table 1 shows how much different budget items change between fiscal 1981 and fiscal 1986. The one exception is net interest, where the comparison reflects the cumulative growth of deficits during all of the intervening years.

The third column of Table 1 shows that the increase in expenditures as a percent of GNP is not shared equally among the various spending categories. The categories showing the largest increases are (from greater to lesser) net interest, national defense, and Medicare and Medicaid. These increases more than offset the cuts in welfare programs, government operating expense, state and local government grants, and nondefense research and development—all of which compose the categories of entitlements and nondefense discretionary spending.

In terms of revenue, the largest reduction is in individual income taxes due to the combined effects of the Economic Recovery Tax Act (ERTA) of 1981 and the Tax Equity and Financial Responsibility Act (TEFRA) of 1982. Because ERTA decreases revenues, it increases the deficit. And TEFRA only partially offsets these decreased revenues. Table 1 shows that if ERTA and TEFRA had not been enacted—all other things being equal—the deficit relative to GNP would have been lower in fiscal 1986 by 3.9 percentage points.

In terms of the deficit, Table 1 reveals that with economic conditions about the same as in 1981, current policies will produce a deficit at 5.9 percent of GNP in 1986, up 3.9 percentage points from 2.0 percent of GNP under policies effective in fiscal 1981. About one-half of the increase in the deficit is caused by policy actions that increased expenditures, the other half by policy actions that lowered revenues. Thus, the increase in deficits in current and prospective years is not due to economic conditions—as proponents of this myth would maintain—but largely to policy actions.

Some might argue that the deficit would shrink further as employment expanded above its weak 1981 rate. Higher employment would reduce government spending on unemployment compensation and increase revenues from corporate and personal income taxes. However, even if we suppose that in 1986 the unemployment rate is reduced to 6 percent (a common definition of high employment), the deficit under current policies would still be roughly 5 percent of GNP.

Myth 2 Prospective deficits, even with no further policy actions, are small relative to the size of our economy.

As evidence, government analysts—assuming no policy changes, moderate real growth and inflation, and stable interest rates—project that deficits over the next few years will be only 5 to 5.5 percent of GNP.

Projected Deficits Are Unprecedented

Although the ratio of projected deficits to GNP seems small, 5 to 5.5 percent of GNP is actually large relative to post–World War II experience. In fact, the magnitude of deficits being projected is unprecedented in modern U.S. history (see Chart 1). In the period between World War II and fiscal 1982, the ratio of deficits to GNP grew larger in years of recession and then shrunk in years of recovery; but even in the depths of recession,

Table 1

Policy actions contributed to increases in the deficit.

Percentage Point Changes in Budget Items From Fiscal 1981 to Fiscal 1986
When Fiscal 1986 Projections Are Adjusted to Fiscal 1981 Economic Conditions

	Percent of GNP		
	(1) Fiscal 1981 (actual)	(2) Fiscal 1986 (CBO baseline projections*)	(3) Change (2)−(1)
Expenditures			
National Defense	5.5%	7.2%	+1.7%
Entitlements & Other Mandatory Spending			
Social Security Benefits	4.8	4.8	—
Medicare and Medicaid	2.0	2.6	+0.6
Other	3.9	2.8	−1.1
Total Entitlements	10.7	10.2	−0.5
Nondefense Discretionary Spending	5.1	4.0	−1.1
Net Interest	2.4	4.2	+1.8
Offsetting Receipts	−0.8	−0.9	−0.1
Total Expenditures	22.9	24.7	+1.8
Revenues			
Individual Income Taxes	10.0	8.4	−1.6
Corporate Income Taxes	2.1	1.8	−0.3
Social Insurance Taxes	6.4	7.1	+0.7
Excise Taxes	1.4	0.9	−0.5
All Other	1.0	0.6	−0.4
Total Revenues	20.9	18.8	−2.1
Deficit (Expenditures less Revenues)			
Total Deficit	2.0	5.9	+3.9
Effects of Legislation on Revenue			
Economic Recovery Tax Act (1981)	—	−5.0	−5.0
Tax Equity and Financial Responsibility Act (1982)	—	1.1	1.1
Total		−3.9	−3.9

*The CBO projections for 1986 are adjusted to the 1981 rates of unemployment, inflation, and interest—economic conditions to which the budget is most sensitive.

The unemployment rate in fiscal 1981 was 7.4 percent, while the CBO projection for fiscal 1986 is 7.6 percent. Thus, the unemployment rates are sufficiently close in the two years that no further adjustments are necessary.

The inflation rate (measured using the GNP deflator) in calendar 1981 was 9.4 percent; in 1986 the CBO projects it to be 4.8 percent. To control for the difference in inflation rates, all budget totals are expressed as percents of nominal GNP. This adjustment approximately controls for inflation because the tax indexing scheduled to go into effect in fiscal 1985 will make the budget approximately neutral with respect to inflation. This adjustment also controls for the scale of the economy. Thus, a doubling in both deficits and GNP would keep their ratio constant and would be considered no change in policy.

Interest rates, which primarily affect net interest payments, are adjusted as follows. The rate for 90-day Treasury bills was 14.1 percent in calendar 1981, and in 1986 the CBO projects it to be 7.4 percent. The CBO net interest projection is adjusted using CBO guidelines by assuming interest rates are 10 percent, 12 percent, and 14 percent in calendar years 1984, 1985, and 1986, respectively. It should be emphasized that these assumptions about interest rates are *not* a forecast; they are merely assumptions needed to get comparable interest rates underlying the budgets in the two years. When the interest rates are adjusted, net interest for 1986 is increased by 1.2 percentage points. In fact, net interest is the only CBO projection that requires adjustment for this exercise.

Source: 1981 figures provided by CBO, 1986 projections and adjustment guidelines for net interest from Beeman and Van de Water 1983

the ratio never hit 5 percent. The first year that the ratio exceeded 5 percent was fiscal 1983. More disconcerting is what makes these projected deficits so different from past experience: for the first time, they do not decline relative to GNP as the economy recovers.

Reduced Capacity to Finance Deficits

Looking at deficits relative to GNP can also give a misleading indication of their size relative to the resources available to finance them. Our capacity to finance deficits can be assessed from two perspectives: first, deficits relative to total new supplies of credit; second, deficits relative to the government's implicit tax revenues.

☐ *Deficits and New Credit Supplies*

We can get a measure of the new supplies of credit available to finance deficits by examining a GNP budget identity and then by observing the ranges within which the quantities in the identity have moved historically. (For an explanation of how this GNP budget identity is derived, see the Appendix.) The identity states that federal deficits equal the excess of savings over investment plus the excess of imports over exports:

$$(d + rb) \equiv (s_N - i_N) + (im - ex)$$

where lowercase letters indicate the quantities are expressed as ratios to GNP and where

d = the federal deficit net-of-interest

rb = interest on federal debt (the current interest rate times the stock of privately held federal bonds)

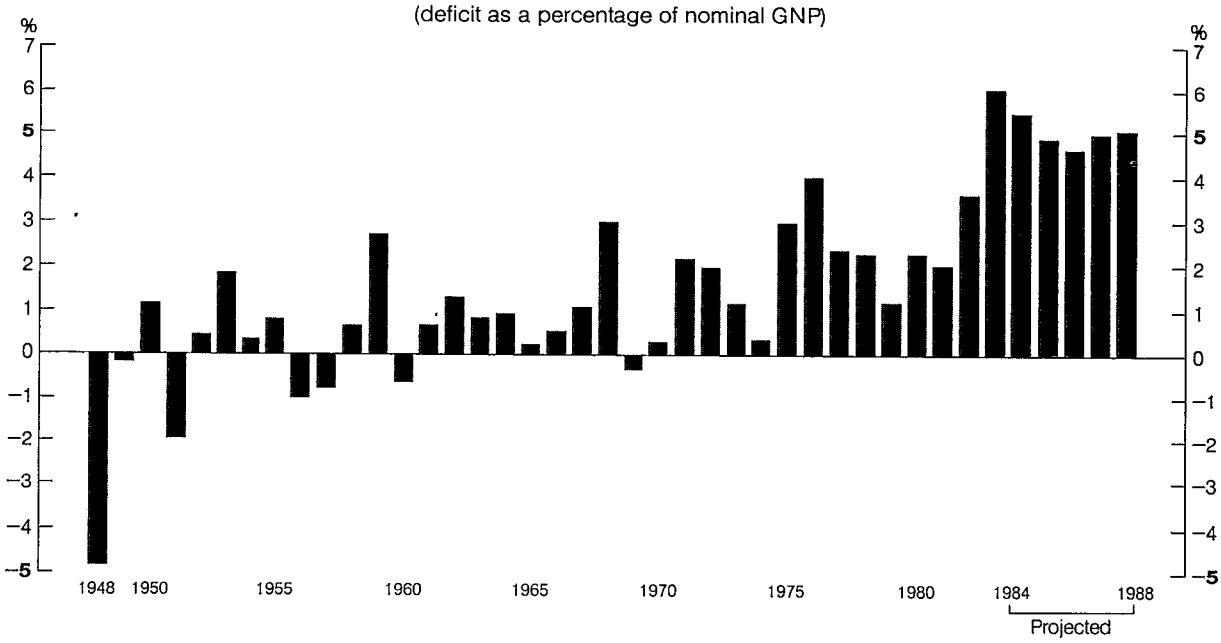
s_N = private savings available to finance additions to the capital stock (gross savings less depreciation)

i_N = investment to add to capital stock (gross investment less depreciation)

Chart 1

Projected deficits are unprecedented in postwar U.S. history.

(deficit as a percentage of nominal GNP)



Sources: Basic data from OMB and U.S. Department of Commerce, Bureau of Economic Analysis, projections from Beeman and Van de Water 1983

im = imports

ex = exports.

This identity makes clear that an increase in the government deficit relative to GNP ($d + rb$) must be financed by an increase in the ratio of net saving s_N, a decline in the ratio of investment i_N, or an increase in the ratio of net imports ($im - ex$).

A concern voiced by many about our capacity to finance deficits at 5 percent of GNP is that they will absorb most of the pool of private net savings. As a result, either net investment will be crowded out or imports will have to exceed exports, thereby causing a severe trade imbalance. (These views are expressed in Friedman, B. 1983 and Volcker 1983). Since 1950, when deficits averaged less than 2 percent of GNP, private net savings have varied in a narrow band of 5 to 8 percent of GNP, while net imports have ranged from −1 to 0 percent of GNP. If private net savings do not rise from their historical rates, the projected rise in deficits will absorb more than 60 percent of their total and will require some combination of lower net investment or higher net imports than experienced in the past. Since most analysts agree that net investment should be higher rather than lower in order to more rapidly increase the capital stock, the deficits' effect on investment is undesirable. However, when imports greatly exceed exports, foreigners acquire our debt. This effectively lowers our capital stock because the returns on capital go to foreigners who hold our debt, rather than being used for domestic consumption. In either case, if private net savings remain unchanged, higher deficits will lead to lower domestic consumption in the future.

□ *Deficits and Inflation*

Another concern about our capacity to finance prospective deficits is that they will require high inflation rates. This is because financing permanent deficits requires the use of implicit taxes, and inflation is a major implicit tax.

This reasoning can be explained further by referring to the government's steady-state budget constraint (derived in the Appendix):

$$D = t_M M + t_B B$$

where

D = the deficit net-of-interest (the difference between government expenditures and revenues, with interest payments excluded from expenditures)

M = the monetary base

B = the stock of privately held federal bonds

t_M = the implicit tax rate on money

t_B = the implicit tax rate on bonds.

This constraint states that a permanent deficit net-of-interest must be financed by implicit taxes levied on the stocks of money and bonds. Under appropriate assumptions, the implicit tax rate on money is just the sum of the economy's long-term rates of inflation and real growth; the implicit tax rate on bonds is just the difference between the economy's long-term rates of real growth and real interest. The constraint indicates that a change in policies which causes the deficit net-of-interest to rise requires more implicit taxation.

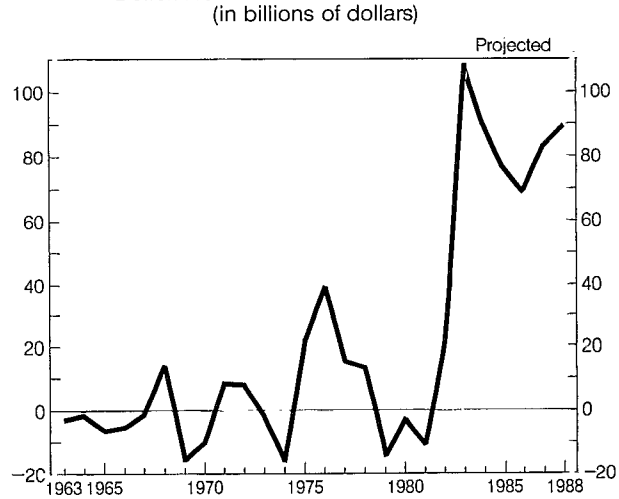
Current projections suggest that, under current budget policy, the deficit net-of-interest has abruptly shifted upwards to a level of about $100 billion (see Chart 2). The question then naturally arises: What inflation rate is required to finance permanent deficits of this size?

A range of answers to this question is suggested by using the steady-state budget constraint. I take the cur-

Chart 2

The deficit has shifted upward abruptly.

Deficit Net-of-Interest from 1963 to 1988
(in billions of dollars)



Sources: Basic data from OMB; projections from Beeman and Van de Water 1983

rent stock of money and bonds to be $200 billion and $1,000 billion, respectively, and I assume this ratio of money to bonds is maintained over time. I take the permanent deficit net-of-interest to be 2 percent of GNP (or $60 billion in current dollars). (For a discussion of these assumptions, see Miller 1983b.) Under these assumptions, the steady-state budget constraint indicates what inflation rate is required to finance a permanent deficit net-of-interest at 2 percent of GNP for various combinations of rates of real growth and real interest (see Table 2).

Table 2 shows that little inflation is required to finance prospective deficits if the economy maintains a high real growth rate and a low real interest rate. But that would require a better economic performance than we've experienced recently. If real growth and real interest rates were to match their averages of the previous two decades (3.5 percent and 0.5 percent, respectively), then an inflation rate of 11.5 percent would be required.[7] However, even this inflation rate may be too optimistic as a longer-term forecast. So far in the 1980s, real growth has averaged only 1.1 percent, while the real interest rate has averaged 4.3 percent. In this light, it seems conservative to assume that in coming years the real growth rate will match the real interest rate. Even under this conservative assumption, Table 2 indicates that an inflation rate of about 25 to 30 percent per year would be required to finance prospective deficits.

The implication of these computations is quite clear. Only if we're extremely lucky can prospective deficits be financed without much inflation. The great risk, however, is that they will require high inflation rates.

Table 2

Prospective deficits may require high inflation.

Inflation Needed to Finance Deficits Net-of-Interest at 2% of GNP for Different Combinations of Rates of Real Growth and Real Interest

(average annual percentages)

Real Growth Rate (%)	Real Interest Rate (%) 0	1	2	3	4
0	30	35	40	45	50
1	24	29	34	39	44
2	18	23	28	33	38
3	12	17	22	27	32
4	6	11	16	21	26

Source: Based on calculations using the steady-state budget constraint and assumptions stated in the text

Myth 3 The economy is thriving, so deficits can't be all that important.

As evidence, proponents of this myth point out that over the four quarters of 1983, real GNP grew by about 6.1 percent while inflation (measured by the GNP deflator) rose by about 4.1 percent.

Deficits Matter in the Long Run

It is hardly surprising that output is growing rapidly while prices are rising moderately in the first year of a recovery. However, one year does not a trend make. In a period as short as a year, business cycle movements can dominate longer-run trends. But the proposition that deficits matter for investment, real growth, and inflation refers to a policy of persistent deficits affecting the behavior of these variables on average over business cycles.

Even though real growth and inflation were favorable in 1983, their performance can still be consistent with the proposition that deficits do matter in the long term. For instance, Miller (1983a) used a vector autoregressive model (VAR) to show that deficits do matter; an updated version of the VAR predicted that over the four quarters of 1983, real GNP would be 8.9 percent and inflation 4.4 percent—an even stronger economy than actually occurred.[8]

Interest Rates Are Atypically High

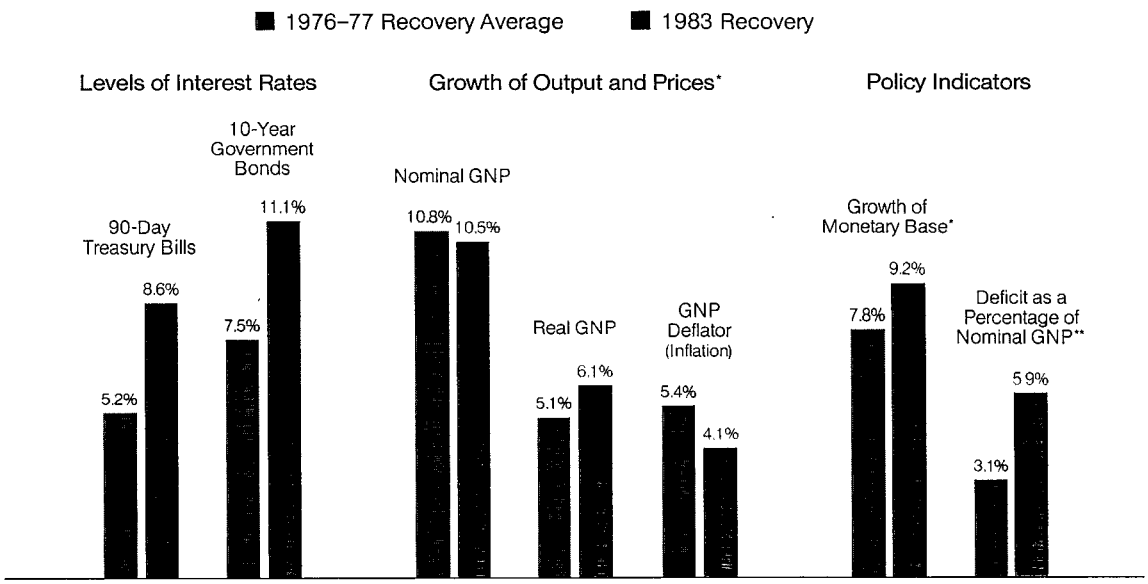
At least one economic indicator has been behaving atypically in the current recovery and does have portent for future trends: the level of interest rates. When com-

[7]The real interest rate is calculated as the difference in each quarter between the average 90-day Treasury bill rate and the increase in the GNP deflator at an annual rate.

[8]The earlier VAR uses data from 1967:1 to 1981:4. The updated VAR uses data from 1967:1 to 1982:4.

Chart 3

This recovery's unusually high interest rates seem due more to government policies than to economic conditions.



*Percentage change from fourth quarter to fourth quarter
**Unified deficit in fiscal year as a percentage of nominal GNP in calendar year
Sources: Federal Reserve Board of Governors; U.S. Department of Commerce

pared with the previous 1976–77 recovery years, the level of interest rates in 1983 was roughly 3.5 percentage points higher (see Chart 3). Other economic indicators in Chart 3 suggest that high 1983 interest rates cannot be explained solely by current economic conditions. While growth in nominal GNP was about the same in 1983 as it was on average in 1976–77, real growth in GNP was higher and inflation (measured by the GNP deflator) was lower. According to some theories and empirical work, these observations taken by themselves suggest that 1983 interest rates should have been the same as or lower than they were on average in 1976–77—not higher.[9]

Although some of the difference in the two periods' interest rate levels could be due to structural changes in the economy after 1977, these changes seem to explain only a small part of the difference. More important in explaining the difference are changes in deficit and monetary policies (Eckstein 1983). As Chart 3 shows, growth in both deficits and the monetary base has been higher in the 1983 recovery. And the outlook for deficits is much less favorable than in 1976–77. In 1977, the deficit as a percent of GNP was halved from the 1976 level. The current outlook, however, calls for no meaningful decline.

Proponents of this third myth tend to ignore the implications of higher interest rates. Higher interest rates are composed of some combination of a higher real

[9]In neoclassical growth models which don't consider interest taxation, for instance, the rates of real growth and real interest are equal, and as long as inflationary expectations are accurate, the nominal interest rate will equal the growth rate of nominal GNP. Empirical money demand functions, meanwhile, frequently include nominal GNP as a dependent variable (and not real GNP and the GNP deflator) to represent the volume of transactions (Duprey 1980). Other theories (for example, Miller 1982a) and empirical work (for example, Fama 1975 and Willes 1978) suggest that movements in interest rates should closely parallel movements in inflation.

interest rate and a higher inflation premium. A higher real interest rate generally predicts lower real growth, and a higher inflation premium generally predicts higher inflation. Thus, it follows that higher interest rates most likely imply that the economy faces slower real growth, higher inflation, or some combination of the two in coming years.

Myth 4 Interest rates are high not because of deficits but because the Fed has been too expansionary. Once the Fed regains control of the money supply, interest rates will come down.

As evidence, proponents of this myth show that growth in the monetary base was high in 1983 and that high money growth historically has been associated with high inflation and interest rates.

The rationale for high interest rates in this myth is deficient in two ways. First, it does not address why real (inflation-adjusted) interest rates are high; second, it does not acknowledge the degree to which money growth is influenced by deficit policy.

High Real Interest Rates

In this myth, the explanation of high interest rates is based on the following causal chain: higher money growth leads to higher inflation, which gets reflected in a higher inflation premium in interest rates. But this chain of causation can only predict that one component of interest rates, the inflation premium, will grow; it does not predict that the other component, the real interest rate, should grow. (The real interest rate is the difference between the interest rate and the inflation premium.) Yet throughout 1983, the interest rate on 90-day Treasury bills exceeded the actual inflation rate by about 4.5 percentage points—a real interest rate which, before 1981, had not been attained since the Great Depression.

Monetary and Deficit Policies

The myth also fails to acknowledge the degree to which monetary and deficit policies must be coordinated. That the two policies are closely interrelated can be demonstrated by referring to the steady-state budget constraint (discussed in Myth 2 and derived in the Appendix):

$$D = t_M M + t_B B.$$

Because the constraint states that deficits must be financed by implicit taxes on money and bonds, it makes clear that a permanent deficit policy is feasible only if the government can raise sufficient implicit taxes to finance the deficits. For a given deficit policy, monetary policy acts by exchanging money and bonds, which changes their relative supplies. This then affects the real rate of interest, the inflation rate, and the real demands for money and bonds. For a given deficit policy, a monetary policy will determine the government's implicit tax take. Only those monetary policies are feasible for which the resulting implicit tax take is sufficient to finance the deficits (see Miller 1983a).

Thus, it is conceivable that the growth in money is only the proximate determinant of inflation and interest rates, while it is deficit policy that is driving them all. If the deficit policy changes, as it has, to imply higher deficits year-in and year-out, monetary policy over time must also change to allow faster money growth (Sargent and Wallace 1981; Miller 1982b). Only by inflating more is it possible to raise the implicit taxes necessary to finance the higher deficits. Contrary to what this myth suggests, in the face of large deficits it simply is not feasible for the Fed to maintain control of money for long.

Myth 5 The budget deficit situation is hopeless. Expenditures already have been cut as much as possible, and attempting to close deficits by tax increases is counterproductive.

As evidence, proponents of this myth point out that nondefense discretionary spending has taken the brunt of recent cuts, making further cuts in this category difficult to achieve. Meanwhile, they point out that the major scheduled spending increases are in defense, interest, and entitlements—none of which is controllable. And they argue that raising taxes to close deficits won't work for two reasons: first, tax increases will send the economy into a tailspin, which will automatically increase the deficit; second, the government will just spend the extra revenue, as it always has in the past.

Setting Goals for Deficit Reduction

At the heart of the hopelessness expressed in this myth are misconceptions about how large a deficit reduction should be attempted and the time frame within which the reduction should occur. If the goal were a prompt return to a balanced budget within a year, for instance, then the

situation would appear bleak. However, a more modest and reasonable goal is to reduce deficits over a span of about three years to the point that budget policy is compatible with noninflationary real growth. This goal can be achieved by policy actions well within the bounds of postwar experience.

The goal of a prompt return to a balanced budget is not inherently wrong, but besides being practically unobtainable, it implies that

- There must be a sizable surplus of current revenues over spending on current programs to offset the interest on the debt.
- There will be no further additions to total debt, so that the ratio of debt to GNP will steadily be declining over time.

If we view the current ratio of publicly held debt to GNP (about 31 percent) to be the burden we are carrying for running deficits in the past, it seems reasonable to set as a goal the amount of deficit reduction necessary to stabilize this ratio at its current level without requiring the use of the inflation tax.

Estimating Required Deficit Reduction

The steady-state budget constraint can give estimates of how much the deficit must be reduced to meet this more modest goal. Table 3 indicates the permanent reduction in the deficit net-of-interest required to stabilize the ratio of debt to GNP without inflation for varying assumptions about the economy's long-term average rates of real growth and real interest. If the rates of real growth and real interest match their averages over the 1960s and 1970s (3.5 percent and 0.5 percent, respectively), Table 3 can be interpolated to indicate that the deficit net-of-interest must be reduced by $23 billion in terms of 1983 GNP (or 0.8 percent of GNP) in every year to make budget policy compatible with price stability. If instead those rates match their averages so far in the 1980s (1.1 percent and 4.3 percent, respectively), then the table indicates that roughly $90 billion in terms of 1983 GNP (or 3.0 percent of GNP) in reductions must occur every year. Since the experience of the 1980s has been so atypical, it seems sufficiently prudent to assume that real growth and real interest rates will be approximately equal in coming years.[10] This assumption implies that the deficit net-of-interest must be reduced by roughly $52–60 billion in terms of 1983 GNP (or 1.7–2.0 percent of GNP) every year to make budget policy sustainable and consistent with price stability.

Table 3

Reducing the Deficit Without Using Inflation

Reduction in Deficit Net-of-Interest Needed Each Year for Different Combinations of Rates of Real Growth and Real Interest

(in billions of dollars* and as a percentage of GNP)

Real Growth Rate (%) \ Real Interest Rate (%)	0	1	2	3	4
0	60 (2.0%)	70 (2.3%)	80 (2.7%)	90 (3.0%)	100 (3.3%)
1	48 (1.6%)	58 (1.9%)	68 (2.3%)	78 (2.6%)	88 (2.9%)
2	36 (1.2%)	46 (1.5%)	56 (1.9%)	66 (2.2%)	76 (2.5%)
3	24 (0.8%)	34 (1.1%)	44 (1.5%)	54 (1.8%)	64 (2.1%)
4	12 (0.4%)	22 (0.7%)	32 (1.1%)	42 (1.4%)	52 (1.7%)

*Dollar amounts are calculated by applying the given percentage of GNP to the 1983 GNP of about $3 trillion. These amounts are provided to give a sense of the size of deficit reductions in terms of current dollars. For future years, the dollar deficit reductions would have to be scaled upward by the growth in GNP.

Source: Based on calculations using the steady-state budget constraint and assumptions stated in the text

Deficit Reduction Is Achievable

Reducing the deficits by 2 percent of GNP seems achievable. It can be achieved with a package of spending cuts and tax increases of not unprecedented size. Suppose, for the sake of argument, that we consider the reasonableness of a package entailing a permanent reduction in spending net-of-interest of 1 percent of GNP and

[10] In well-articulated models, it follows that the real interest rate and, consequently, the real growth rate depend on the monetary and budget policies being followed. In neoclassical models without interest taxation, it follows that although the real interest rate will depend on the mix of policies, the real growth rate will adjust to equal the real interest rate.

a permanent increase in taxes of 1 percent of GNP.

☐ *Spending Cuts*

Cutting noninterest spending by 1 percent of GNP in each year seems attainable for at least three reasons. First, the argument that spending isn't controllable really does not apply. The budget problem is long-term in nature and, given enough time, all expenditures are controllable. Defense spending can be reduced by amounts increasing over time by, for instance, slowing the introduction of new weapons systems; entitlement spending can be reduced over time by new legislation. Second, the President's budget for 1984 included specific proposals to cut spending (excluding defense and interest) by nearly 1 percent of GNP. Third, a cut of this size is not extraordinarily large from a historical perspective. One study based on post–World War II experience suggests that with no change in the budgetary process, a cut in spending from projected levels by 1 percent of GNP would occur about 42 percent of the time in the third year of a three-year span (Doan, Litterman, and Sims 1983). Or put another way, a spending cut of this size requires no large deviation from current policy.

☐ *Tax Increases*

An increase in taxes on the order of 1 percent of GNP in each year seems feasible, too. Such an increase would be no larger than the last tax increase embodied in TEFRA. Moreover, a tax increase of this size may be the political price for the spending cuts which form the other part of the package. And since the tax increase would be coupled with a spending cut, this would assure that the additional tax revenue would be used to reduce deficts, rather than to increase spending.

The remaining objection that a tax increase of 1 percent of GNP will cause a recession is simply unfounded. The correct measure of taxation is what the government spends, as the steady-state budget constraint can be rewritten to indicate.[11] For a given amount of spending, what an explicit tax increase really changes is the mix of taxes from implicit to explicit. Since implicit taxes seem relatively distortionary, such a change in mix should imply a healthier economy in the long run. While the change could be disruptive in the short term, it need not be. After all, the economy suffered one of its most severe recessions after the tax *cut* of fiscal 1981 was enacted. Then we were being warned that the tax cut was going to lead to a runaway economic boom.

Conclusions

From our examination of these five major myths about budget deficits, the following conclusions emerge:

1. The prospective deficits are mainly due to policy actions, such as the defense buildup and the recent income tax cut, rather than to changed economic conditions.
2. Prospective deficits are large relative to post–World War II experience in the United States and relative to the economy's capacity to finance them.
3. The current budget policy of high, continued deficits risks high inflation.
4. The harmful effects of deficits cannot be undone by monetary policy.
5. Budget deficits can be brought down to manageable levels by tax increases and spending cuts of not unprecedented proportions.

[11]The deficit net-of-interest D is formally defined as the difference between expenditures net-of-interest (federal purchases G plus transfers net-of-interest TR) and explicit revenue T: $D \equiv G + TR - T$. By substituting this definition for D and rearranging terms, the steady-state budget constraint can be rewritten as follows:

$$G + TR = T + (t_M M + t_B B)$$

which states that total expenditures net-of-interest is the sum of explicit revenues T and implicit taxes $t_M M + t_B B$.

Appendix
Deriving the GNP Budget Identity and the Steady-State Budget Constraint

The GNP Budget Identity

The GNP budget identity (referred to in Myth 2) is derived by combining three simple identities which hold at all points in time. The first identity states that GNP is equal to the total demand for goods:

(1) $$Y \equiv C + (I_N + Dep) + G + EX - IM$$

where

Y = GNP

C = consumption

I_N = investment net of depreciation of the capital stock

Dep = depreciation of the capital stock

G = federal purchases

EX = exports

IM = imports.

All values are expressed in current dollars, and state and local government purchases are included in consumption and investment.

The second identity states that private savings are equal to the amount of disposable income that is not consumed:

(2) $$(S_N + Dep) \equiv Y^D - C$$

where

S_N = savings net of amount needed to cover depreciation

Y^D = disposable income.

The third identity defines disposable income as total income plus government transfers less taxes:

(3) $$Y^D \equiv Y + TR + rB - T$$

where

TR = federal transfers net-of-interest on the debt

rB = interest on the debt (the current rate of interest times the stock of privately held federal bonds)

T = federal taxes.

We can combine identities (1)–(3) to get $(G + TR - T + rB) \equiv (S_N - I_N) + (IM - EX)$. Now, letting D be the federal deficit net-of-interest defined by $D \equiv G + TR - T$ and dividing through by Y, we get the desired identity:

(4) $$(d + rb) \equiv (s_N - i_N) + (im - ex)$$

where lowercase letters indicate the quantities are expressed as ratios to GNP.

The Steady-State Budget Constraint

The steady-state budget constraint (used in Myths 2 and 4) applies smooth growth assumptions to the federal government's financing identity. This identity states that the deficit is financed by printing money and issuing bonds:

(5) $$D_t + r_t B_t \equiv \dot{M}_t + \dot{B}_t$$

where

$\dot{M}_t$ = the change in the monetary base M_t per unit of time

$\dot{B}_t$ = the change in the stock of privately held government bonds B_t per unit of time

and t subscripts refer to time. Then, in order to derive the steady-state budget constraint, the following assumptions are made:

(a) $\pi = \dot{P}_t / P_t$ — The inflation rate π, which is the rate of change of the aggregate price level P, is invariant over time.

(b) $\nu = \dot{X}_t / X_t$ — The real growth rate ν, which is the rate of change of aggregate output X, is invariant over time.

[Since $Y_t \equiv P_t X_t$, assumptions (a) and (b) imply that the rate of change of nominal GNP is invariant over time and is equal to $\pi + \nu$.]

(c) $r_t = r \equiv \rho + \pi$ — The nominal interest rate is invariant over time and is equal to the sum of the real interest rate ρ and the inflation rate π.

(d) $D_t / Y_t = d$ — The deficit net-of-interest is a constant proportion of GNP.

(e) $M_t^d = m(\rho,\pi)Y_t$ Money and bond demands are proportional to GNP, where the proportionality depends on the real interest rate and the inflation rate.

(f) $M_t^d = M_t$ and $B_t^d = B_t$. The markets for money and bonds clear.

In this formulation, a change in budget policy is represented by a change in d and a change in monetary policy is represented by a change in the path of M. In general, alternative feasible policy mixes will imply different values of π, ν, and ρ; and thus, $m(\rho,\pi)$ and $b(\rho,\pi)$. Once these new values are established in response to a given policy mix, they are maintained for all time.

Applying the above assumptions to the financing constraint generates

$$(D_t + rB_t)/Y_t \equiv (\dot{M}_t + \dot{B}_t)/Y_t$$

which implies by (d) and (e)

$$d + rb(\rho,\pi) = (\dot{M}_t/M_t)(M_t/Y_t) + (\dot{B}_t/B_t)(B_t/Y_t).$$

This implies by (a), (b), (c), (e), and (f) that

$$d + (\rho+\pi)b(\rho,\pi) = (\pi+\nu)m(\rho,\pi) + (\pi+\nu)b(\rho,\pi)$$

which can be rewritten as

$$d = (\pi+\nu)m(\rho,\pi) + (\nu-\rho)b(\rho,\pi).$$

Now, multiplying through by Y_t, we get the steady-state budget constraint:

(6) $$D_t = (\pi+\nu)M_t^d + (\nu-\rho)B_t^d.$$

The steady-state budget constraint is related to the GNP budget identity by

(7) $$D_t \equiv (S_t - rB_t - I_t) + (IM_t - EX_t)$$

$$= (\pi+\nu)M_t^d + (\nu-\rho)B_t^d.$$

If we let t_M represent the implicit tax on money $(\pi+\nu)$ and t_B represent the implicit tax on bonds $(\nu-\rho)$, we have the simplified version of the steady-state budget constraint used in the text of this article:

(8) $$D = t_M M + t_B B.$$

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