The Uneasy Relation between the Budget and Trade Deficits

William A. Niskanen

Popular and political perceptions about the relation of the U.S. budget and trade deficits are based on the observation that both deficits have been unusually high during the past several years. Our professional perception of this relation is based on the combination of an accounting identity and a plausible hypothesis about the chain of effects that might lead an increased budget deficit to increase the trade deficit.

These two perceptions, however, provide neither an adequate understanding of this relation nor a sufficient guide for economic policy. The observed combination of large budget and trade deficits may have been a coincidence, in that both deficits may have been due to unrelated changes in other conditions. The two pillars of our professional understanding of this relation are more useful but are not sufficient. This paper summarizes our professional understanding of this relation and concludes that much of what we "know" about this relation is not consistent with the available evidence.

The Accounting Identity

For several years, economists have been trying to educate politicians and journalists (without much success) about the implications of a basic accounting identity. This identity demonstrates that the foreign balance of any country in any year, an amount equal to the exports minus the (broadly defined) imports of that country, is also equal to saving *by* that country minus investment *in* that country. In other words, a country will have a trade surplus if saving is greater than domestic investment, and it will have a trade deficit if saving is

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less than domestic investment. This identity has a number of important implications:

- A change in conditions or policies that increases exports or reduces imports will *not* increase the trade balance unless it also increases the balance of domestic saving and investment. Specifically, trade policy, by itself, may affect the level, product composition, and bilateral balances of trade but cannot change the balance of total exports and imports. Most politicians, unfortunately, either do not understand this implication or they are using a more general concern about the trade deficit as cover for policies that serve some sectoral interest.
- For our purpose, the more relevant implication is that a change in conditions or policies that increase the government-sector deficit will increase the trade deficit by an *equal* amount, unless such changes also affect private saving or investment. This identity, thus, provides a basis for expecting a strong positive relation between the government-sector balance of receipts and expenditures and the foreign-sector balance of exports and imports.

The several implications of this identity are important to understand. This identity, however, does not identify the *direction* of the relation between the foreign and domestic balances. Specifically, changes in the domestic balance may be the result of changes in the foreign balance and vice versa. As it turns out, moreover, the expected relation between the government-sector balance and the foreign balance is not consistent with the available evidence.

An examination of the relevant data for the two most recent U.S. recovery periods provides some insights into why the relation between the government-sector balance and the foreign balance has not been stable. Table 1 summarizes the relation between the U.S. foreign and domestic balances during the recovery from the recessions of 1974–75 and of 1981–82, periods during which other economic conditions and policies were quite different.

The recovery from the 1974–75 recession illustrates the usual cyclical pattern. From 1975 through 1979, net foreign investment by the United States declined substantially, despite a strong increase in the government balance from a record peacetime deficit to a small surplus. During this recovery, in other words, there was a strong *negative* relation between the foreign balance and the government balance. Other characteristics of this recovery were also rather typical. The rate of private saving declined gradually during the recovery, and the rate of private investment increased sharply. The single condition most closely associated with net foreign investment is the

TABLE 1

THE RELATION OF U.S. FOREIGN AND DOMESTIC BALANCES

Year	F	=	X	−	M	=	S	+	G	−	I
					Percent of GNP						
1975	1.4		10.1		8.7		19.2		− 4.1		13.7
1976	0.5		10.0		9.5		18.2		− 2.2		15.6
1977	−0.4		9.6		10.1		17.8		− 1.0		17.3
1978	−0.4		10.1		10.6		18.1		− 0.0		18.5
1979	0.1		11.7		11.6		17.7		0.5		18.1
1982	0.0		11.4		11.5		17.6		− 3.5		14.1
1983	−1.0		10.4		11.3		17.5		− 3.8		14.7
1984	−2.4		10.2		12.6		18.0		− 2.8		17.6
1985	−2.9		9.2		12.1		16.4		− 3.3		16.0
1986	−3.4		8.9		12.3		15.9		− 3.5		15.8
1987	−3.5		9.5		13.0		14.9		− 2.4		16.0

F = net foreign investment
X = exports plus capital grants received by the United States
M = imports plus transfer payments and interest payments by the government to foreigners
S = gross private saving plus the statistical discrepancy
G = total government-sector (federal, state, and local) surplus (+) or deficit (−)
I = gross private domestic investment

NOTE: Details may not add to totals because of rounding.

SOURCE: U.S. Bureau of Economic Analysis, *Survey of Current Business.*

level of private domestic investment. In brief, the United States invests more abroad when it invests less at home and vice versa.

The recovery from the 1981–82 recession reflects a quite different pattern. From 1982 through 1987, net foreign investment by the United States declined substantially, although the government deficit share of GNP also declined somewhat. During this recovery there was little apparent relation between the foreign balance and the government balance. The decline in the foreign balance through 1984 was primarily due to a strong increase in domestic investment. The continued decline in the foreign balance through 1987, however, was primarily due to an unusually strong decline in the rate of private saving, a condition that has yet to be explained.

These comparisons indicate that changes in the government balance have not been the primary causes of short-term changes in the foreign balance. A comparison of the comparable recovery years of 1979 and 1986, however, illustrates the expected relation: Net foreign investment by the United States in 1986 was lower than in 1979

by about 3.5 percent of GNP, in combination with a reduction of the government balance by about 4 percent of GNP. This last comparison indicates that the large recent decline in net foreign investment by the United States was due, not to an increase in the government deficit, but to the fact that the deficit did not decline as much as is usual during the current recovery.

The longer-term U.S. experience, as well as a cross-country comparison, does not indicate any significant direct relation of the foreign balance and the government balance. Figure 1 illustrates the U.S. data from 1947 through 1986. Figure 2 illustrates the cross-country data, based on the 1970–84 averages.[1] (The dashed line in Figure 1 reflects the relation between the first-differences of these variables, to be discussed later. The dashed line in Figure 2 reflects the relation between the average levels of these variables.) In both cases there is a very small positive relation between the foreign and government balances, but in neither case is this relation significant. How does one reconcile the strong positive relation between these balances, as suggested by the accounting identity, with the very weak and insignificant direct relation indicated by the empirical data? One step at a time.

From the accounting identity

$$F = S + G - I,$$

the effect on F of an increase in G is

$$\delta F/\delta G = \delta S/\delta G + 1 - \delta I/\delta G.$$

As mentioned above, one should expect a strong positive relation between the foreign balance and the government balance only if private saving and investment are not strongly related to the government balance. The observed direct relation between the foreign balance and the government balance will be the sum of these three effects. If the Ricardo-Barro effect ($\delta S/\delta G$), for example, is equal to -1, an increase in government borrowing is offset by an equal increase in private saving, with no effect on either foreign or domestic investment. Similarly, if an increase in government borrowing displaces an equal amount of domestic investment ($\delta I/\delta G = 1$) with no effect on private saving, changes in the government balance will have no effect on the foreign balance. Some of the more serious controversies among economists involve the magnitude of these two "crowding-out" effects. I do not expect here to resolve these controversies.

[1]Figure 2 is from Darby (1987).

FIGURE 1

U.S. FOREIGN AND GOVERNMENT BALANCES, 1947–87

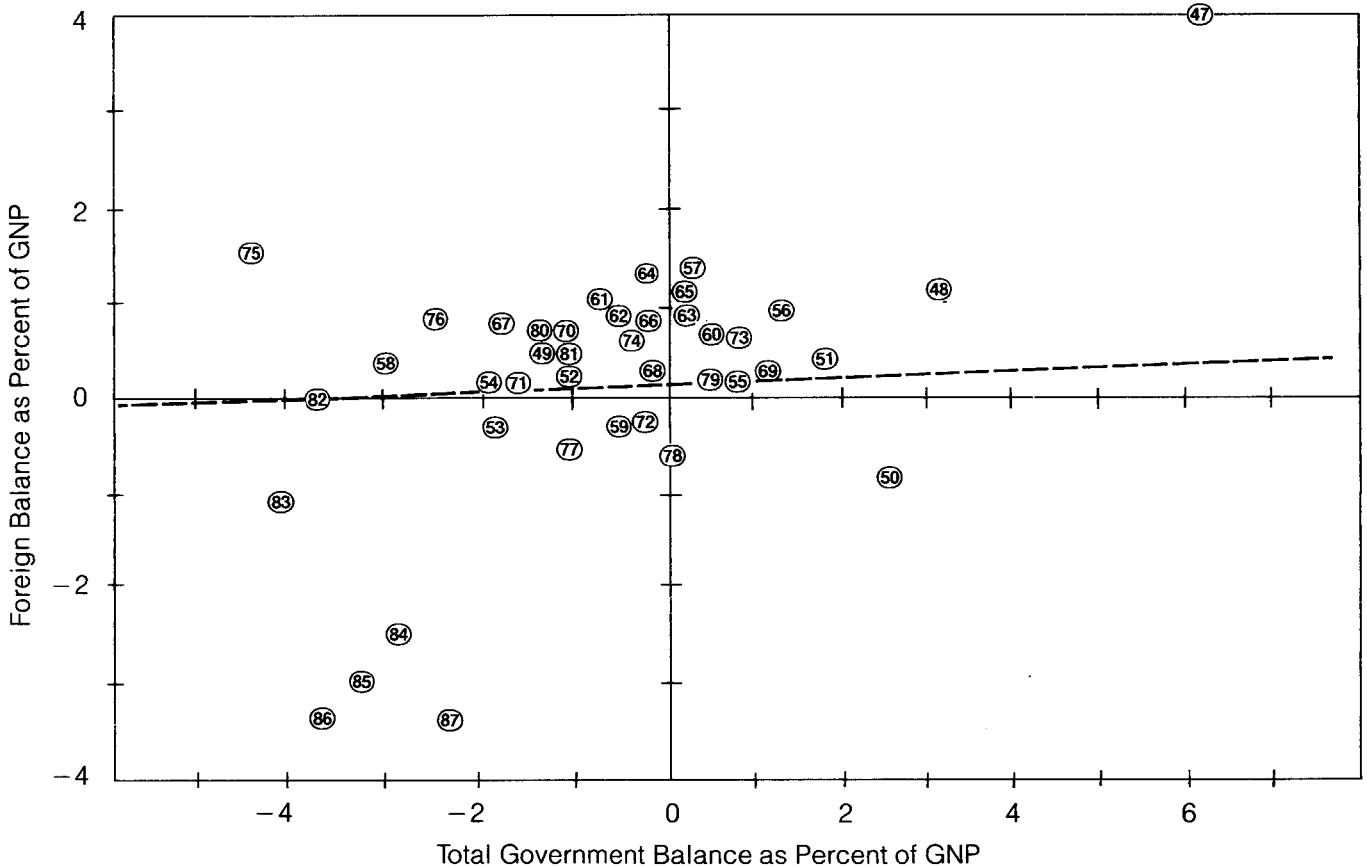
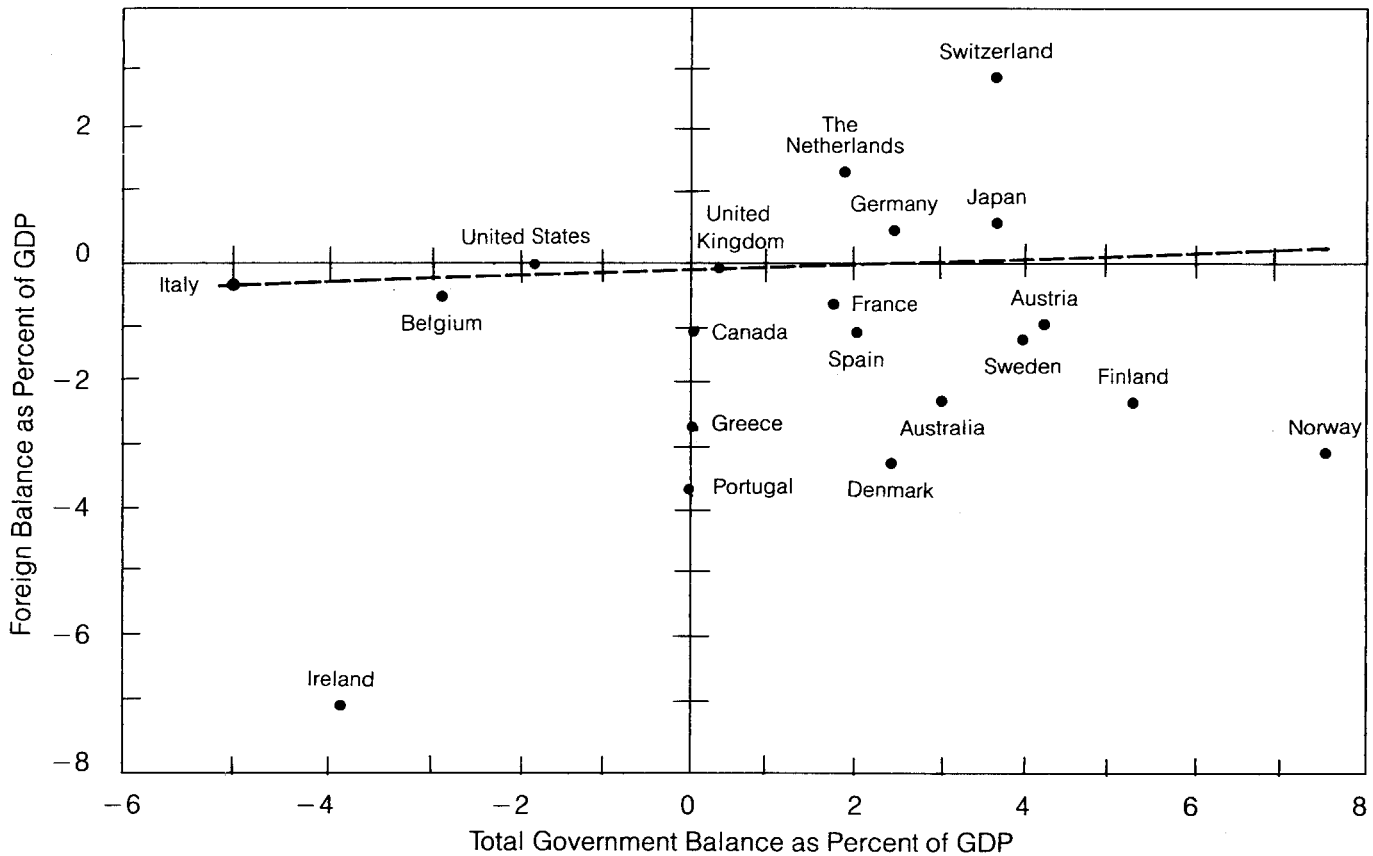


FIGURE 2

FOREIGN AND GOVERNMENT BALANCES BY COUNTRY, 1970–84



SOURCE: Darby (1987).

The results of the simple first-difference regressions reported in Table 2, however, provide an important insight into why the government balance in the United States does not appear to have had a significant effect on the U.S. foreign balance: Specifically, the marginal effect of changes in the government balance on changes in private saving minus the marginal effect on domestic investment appears to be close to −1. In other words, most of the changes in the government balance appear to have been offset by changes in private saving and domestic investment, with little effect on the foreign balance. (The results reported in Table 2 are best described as descriptive statistics, because they do not control for cyclical conditions that affect each of these variables. The cross-country data presented in Figure 2, however, are the average of these variables over a 15-year period and reflect a similar weak relation between the foreign and domestic balances.) Moreover, the marginal effects of changes in the government balance do not appear to have changed significantly during the 1980s. For the total postwar period, thus, almost all the variation in the U.S. foreign balance appears to have been due to changes in U.S. private saving and investment that were independent of changes in the government balance.

The constant terms in these simple first-difference regressions also deserve attention. Both samples indicate a small secular decline in U.S. foreign investment and a small secular increase in U.S. domestic investment. This outcome reflects the gradual decline in the real post-tax return on foreign investment relative to the return on U.S. domestic investment—a condition that, in turn, reflects the relative

TABLE 2

MARGINAL EFFECTS OF CHANGES IN THE GOVERNMENT BALANCE

Dependent Variables	*F*	*S*	*I*
Samples			
1947–80			
Annual Change	−.07	.07	.11
Marginal Effects	.06	−.27	.67
r^2	.021	.335	.539
1947–87			
Annual Change	−.16	.00	.13
Marginal Effects	.05	−.24	.71
r^2	.015	.239	.544

NOTE: All variables are deflated by nominal GNP.

increase in the foreign capital stock after the destruction of World War II. The corresponding small secular decline in the U.S. trade balance, therefore, was due more to a realignment in the relative capital stocks than to a relative decline in the U.S. government balance.

Since 1980, however, U.S. private saving has been lower and U.S. domestic investment has been higher than would have been anticipated based on the prior postwar sample. From 1947 through 1980, for example, there was a small secular increase in the private saving rate, a condition that was sharply reversed in the 1980s. The reasons for the sharp decline in the U.S. private saving rate since 1980 are not clear, but this decline was probably associated with the large increase in the real value of financial assets. The relative increase in U.S. private investment through 1984 was most directly attributable to the reduction in the effective tax rates on new business investment in the 1981 tax legislation—a condition that was reversed by the 1986 tax legislation. The resulting sharp decline in the U.S. foreign balance during the 1980s, in summary, appears to have been primarily due to conditions other than the decline in the government balance. The "twin deficits" of the 1980s, in brief, were primarily a coincidence of unrelated conditions, rather than the result of a significant relation between the trade and budget deficits.

The Plausible Hypothesis

The economist's characteristic hypothesis about the relation between the foreign and government balances is based on the following sequence of effects: Real budget deficits increase real interest rates, which increase the real exchange rate, which increases the real trade deficit.[2] This might best be described as "the Feldstein chain," after Martin Feldstein's explanation of this relation.[3] The problem of this hypothesis, however plausible, is that the evidence for each link in this chain is extraordinarily weak.

There is ample theoretical reason to expect that increased government borrowing will increase real interest rates by some amount,

[2]The relation between the budget and trade deficits may also operate through other channels. Specifically, many economists maintain that an increase in the budget deficit increases total domestic demand, which increases imports and the trade deficit for any given level of interest and exchange rates. My reading of the evidence, especially during the 1980s, is that the relation between budget deficits and total domestic demand is even weaker than the relations operating through interest and exchange rates. In any case, whatever the channels of effects of the budget deficit, the aggregate data do not indicate a significant effect of budget deficits on the foreign balance.

[3]Feldstein's position was first summarized in the 1984 *Economic Report of the President* and later in Feldstein (1986).

except in the extreme case in which the increased borrowing is fully offset by increased private saving. The best tests of this relation, however, fail to find any significant effects of past, current, or future government deficits on rates.[4] The characteristic focus on net saving, rather than on the total stock of debt, has led many economists to expect a larger effect. A focus on how government borrowing changes the total supply of debt, however, provides a more accurate perspective on the magnitude of the potential effects on interest rates.

The following example illustrates this point. Assume a total world supply of debt of $20 trillion and a real interest rate of 4 percent. An increase in the real government debt of $100 billion, in this case, increases the total supply of debt to $20.1 trillion, a 0.5 percent increase. In the absence of an increase in the world demand for debt, this increase in the supply of debt would increase real interest rates by only 2 basis points on a consul or about 5 basis points on a 10-year bond, plus some portfolio effect specific to the debt of the borrowing government. A precise estimate of the effect of a given increase in government debt would have to control for the conditions affecting the total world demand for debt and the supply of debt by the world's private sector and other governments, a task that is now beyond the most sophisticated econometric techniques. Variations in other conditions that affect the world demand for debt and the supply of debt by others apparently swamp the small effects of the large recent U.S. government deficits on real interest rates. This conclusion should surprise only those who continue to use a model based on saving and investment flows rather than the stock of debt to analyze these effects.

The theoretical relation between interest rates and exchange rates is more complex than is usually recognized. Specifically, the difference between the current and forward exchange rate with respect to another currency tends to equal the difference between domestic and foreign interest rates. In other words, an increase in domestic interest rates will increase the current exchange rate by an equal amount only when the forward exchange rate does not change, such as when the increase in the domestic interest rate is expected to be temporary. This relation, called the "covered parity" condition, is strongly consistent with the evidence and was about the same in the late 1970s and the early 1980s.[5] In both periods, changes in the current and forward exchange rates were closely related, explaining

[4]The best studies of this issue are by Evans (1985, 1987).

[5]For the relation between exchange rates and interest rates, see Somensatto (1985) and Meese and Rogoff (1987).

why there has been so little relation between interest rates and exchange rates. Moreover, the combined effect of these first two links does not appear to be significant. In other words, there does not appear to be any significant direct effect of budget deficits on exchange rates.[6]

Finally, the relation between the real exchange rate and the real trade deficit has also turned out to be weaker than expected. Economists have long recognized that a change in exchange rates would have a "J-curve" effect on the *nominal* trade deficit, but the lag between changes in the real exchange rate and changes in the real trade deficit was expected to be relatively short. The U.S. experience of the past several years, however, suggests that this relation is weaker and operates with a longer lag than earlier expected. Although the real foreign exchange value of the dollar peaked in early 1985, for example, the real U.S. trade deficit continued to increase through the summer of 1986. A continued decline in the real dollar exchange rate to a level about equal to that in 1980 has only reduced the real trade deficit, to date, to a level about equal to that in early 1986.

The reasons for this weak recent relation between the real exchange rate and the real trade deficit are not clear. One plausible explanation is the increased relative importance of quantitative restraints on international trade in a large number of products. Another reason may be the increased international sourcing of components of traded products, a practice that offsets part of the foreign price effect of changes in the exchange rate. A third reason may be a pricing strategy by some firms to maintain their market share, especially if the changes in the exchange rate are expected to be temporary. For whatever reason, the substantial decline in the real exchange value of the dollar since early 1985 has not, to date, reduced the real U.S. trade deficit as much as one would have expected from prior experience. In general, a lower real exchange rate will reduce the real trade deficit, but this relation is apparently weaker than was previously expected.

In summary, the characteristic explanation of the relation between the budget deficit and the trade deficit is plausible, but the evidence for each link in this chain of effects is surprisingly weak. One should not be surprised, therefore, that there does not appear to be significant direct relation between these two deficits.

What to Do?

The "twin deficits" of the 1980s represent only one problem: The increase in private and government consumption, financed in part

[6]For a direct test of the relation between exchange rates and budget deficits, see Evans (1986).

by borrowing abroad, will not provide a stream of returns to finance the increased debt. A reduction in the growth of either private or government consumption relative to the growth of output will be necessary to resolve this problem, and the choice between these two approaches will be the central political issue for some years. The trade deficit, by itself, is not a problem. Given U.S. economic policies during the early 1980s, we were much better off with a large trade deficit; in the absence of a larger flow of goods and services from abroad, U.S. domestic investment would have been much lower and real interest rates would have been somewhat higher. If U.S. economic policies during this period were correct, the increased trade deficit should have been regarded as a desirable, albeit not anticipated, effect of these policies. The trade deficit has become a problem only because popular and political perceptions have misattributed this deficit to "unfair" foreign trade practices, with the consequent increase in actual and potential protectionist actions by the United States.

The remaining problem, however, is serious and will become more serious the longer we delay addressing it. This problem is the result of the growth of total debt relative to the growth of output, not the small but growing proportion of this debt owed to foreigners. The primary challenge will be to focus on the budget deficit, not the trade deficit. Some measures that would reduce the trade deficit would not be desirable, and some measures that would increase the trade deficit may be desirable. A recession, for example, would increase the budget deficit but would probably reduce the trade deficit. In contrast, a reduction in the capital gains tax rate would probably reduce the budget deficit but would increase the trade deficit.

Moreover, it is important to focus on measures to reduce the budget deficit that have the least adverse effects on economic growth, whatever their effects on the trade deficit. The primary candidates for government spending restraint, I suggest, are those programs that increased most rapidly during the Reagan years—defense, medical care, and agriculture. Defense spending (adjusted for general inflation) is now about 60 percent higher than in 1978 and about 20 percent higher than the peak Vietnam War spending in 1968, and there is reason to question whether the value of this record peacetime buildup was worth the cost. In effect, our large share of the defense burden of the West is one of our largest exports, but is one for which we are not compensated. At the margin of current spending for medical care, there does not appear to be any relation between most dimensions of health status and medical care, and most of the incremental benefits accrue to the providers of medical care. Our agricul-

tural programs are a national scandal, and most of the benefits of these programs accrue to owners of farm land (and their creditors). Spending for these and other smaller federal programs could probably be reduced by some amount without significant effects on our national security, health status, private consumption, or economic growth.

Some increase in tax revenues is necessary only if our politicians choose to maintain the current path of total real federal spending. The choice among alternative means to increase tax revenues, however, is very important. As much as possible, revenues should be increased by continuing to broaden the tax base, rather than by increasing tax rates. As much as possible, tax measures should be designed to restrain private consumption, rather than private saving or domestic investment. Again, the effects of such measures on the trade deficit should be irrelevant. An increased tax on domestic business investment, for example, would reduce the trade deficit by more than the decline in the budget deficit, but at the expense of U.S. economic growth.

One might hope that some presidential candidate would at least address these issues. In any case, a new administration of either party can avoid these hard choices only at the expense of increasing the problem for some later administration. A sustained reduction of the budget deficit may or may not reduce the trade deficit but is necessary to reduce the growth of total debt. Our objective, in summary, should be to put our own fiscal house in order without concern for the consequent effects on exchange rates and the trade deficit.

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BUDGET POLICY AND THE ECONOMY

Gary H. Stern

Based only on his conclusions, I judge William Niskanen to have written a wise paper. That is because I reached many of the same conclusions in recent articles in our Bank's *Annual Report* and *Quarterly Review* (Stern 1986, 1987). But this agreement is reached despite significant differences in our views about how budget policy affects the economy. So in my brief comments, I will recite some of our common conclusions, describe how I arrived at them, and then explain where I disagree with Niskanen's analysis.

Common Conclusions

Let me recite just a few of our common conclusions:

1. A GNP identity is useful in relating the trade deficit, government deficit, and savings/investment gap.
2. Assuming that private savings are fixed, the identity indicates that a rise in the government deficit must either crowd out domestic investment or worsen the trade deficit.
3. In the Reagan years, private savings as a percent of GNP in fact did not increase when the government deficit increased.
4. Because of a resulting decline in total savings (private plus government), the root problem caused by the higher government deficits is the sacrifice of future consumption for the sake of higher current consumption. In other words, our policies are impoverishing future generations to the benefit of current generations.
5. The trade deficit is not a root problem; it is a possibly optimal adjustment to the (mis)match of monetary and budget policies both here and abroad.

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6. Policies that attempt to deal with the trade deficit directly, such as trade protectionism, without addressing the fundamental problem will likely reduce investment and thus are likely to be counterproductive.
7. The appropriate policy course, then, and one which will result in a lower trade deficit, is to raise total U.S. savings. Since our efforts to raise private savings have not met notable success, this prescription suggests we must raise government savings—or, in other words, reduce the federal deficit.

A General Model

I was careful in my *Annual Report* article to indicate the limitations of analysis by identity. Without some additional restrictions based on theory or empirical evidence, the identity provides no predictions about the effects of budget policy changes. In the *Annual Report* article I merely assumed that a higher deficit policy would not bring forth an equivalent rise in private savings; in the *Quarterly Review* article I explained why.

Let me briefly describe the general model I had in mind when I wrote those articles. My purpose is to help illustrate and clarify some of the differences I have with Niskanen's analysis.

Based on available theories and evidence, I reasoned that the best model of fiscal policy is a hybrid of a Barro-type Ricardian model and a Samuelson-type non-Ricardian model. (See, for example, Barro 1974 and Samuelson 1958.) In a Barro-type model all generations are linked by operative bequests, and it can be shown that a policy of higher budget deficits will be offset one-for-one by higher private savings. In a Samuelson-type model no bequests are operative and higher budget deficits are not offset one-for-one.

While both theories are coherent and internally consistent, evidence and common sense suggest that a more realistic model is somewhere between the two extremes. There are obvious shortcomings with Barro's model. A Barro-type model cannot explain why private savings did not increase in response to the Reagan deficits. Poterba and Summers (1987) have shown that this finding obtains no matter how private savings are reasonably defined. Moreover, as Bernheim and Bagwell (1988) point out, there would be no distorting taxes of any kind if Barro's model were true. Finally, we are all aware of people who leave no bequests. But, in the same vein, the Samuelson world is not realistic either. We know from micro data that a lot of people do leave bequests. In fact, Kotlikoff and Summers (see

Kotlikoff 1987) estimate that without bequests, a Samuelson-type model can explain only about 20 percent of actual savings.

A hybrid of these two models, one in which some bequests are operative and some are not, seems the best bet. But such a hybrid should yield policy predictions that are qualitatively like those of the Samuelson model. That is because the weighted sum of the neutral Barro effects and nonneutral Samuelson effects will be nonneutral, just as the weighted sum of zero and a positive number is still a positive number.

Thus, my conclusions are consistent with a well-specified Samuelson-type model similar to that of Miller and Wallace (1985). In that model a permanent rise in the U.S. budget deficit, with no immediate response in monetary policy, raises the stock of real debt in the world capital market, and this causes the real interest rate to rise. Some of the additional real debt is bought by foreigners, and so there is an increase in the current account deficit. Exchange rate effects are determined by domestic and foreign monetary policy responses to the budget policy change. Total U.S. savings decline as private savings do not rise to offset the rise in the deficit.

Criticisms of Niskanen's Analysis

Based on my just-described analysis, I believe Niskanen makes too much of the chain by which higher budget deficits lead to a higher trade deficit, and I think he grossly misinterprets the data. Let me explain each of these criticisms.

I believe Niskanen's causal chain is overemphasized for three reasons. First, my model makes clear that the changes in the real interest rate, debt, exchange rates, and trade deficit constitute a single equilibrium response to a single external disturbance, the latter being the change in federal budget policy. What Niskanen should analyze is the response of these variables to a change in budget policy, not the average correlations these variables have had historically with one another. My model does not predict that the responses of these variables to a budget policy change will follow in any particular order.

Second, the crucial factor in determining whether budget policy matters is how private savings respond to policy changes and not how the trade deficit responds. If private savings do not rise one-for-one with higher budget deficits, as both Niskanen and I find, there is a problem with a higher deficit policy, and the nature of that problem does not depend on whether the trade deficit increases or private investment falls. In either case the problem is that we are sacrificing future consumption for the sake of more current consump-

tion. On the one hand, if we have a higher trade deficit, we could maintain the same capital stock, but foreigners will own more of the returns on it. On the other hand, if we have less investment, we will have a smaller capital stock. As long as savings do not behave in a Ricardian fashion, a policy of higher budget deficits makes future generations poorer.

Third, I do not believe we can dismiss, as Niskanen does, that our higher budget deficits did in fact lead to higher trade deficits. Theory and past relationships gave us little guidance on what the outcome of this policy change would be. Using the identity and my theory, we could conclude that such a policy change would result in some mix of higher trade deficits and lower investment. The theory does not say much about what that mix would be. And we have very little evidence to guide us in how the change in policy would affect the two. But, that gets me into my next main criticism.

I think Niskanen grossly misinterprets the data. The purpose of the analysis is to examine the proposition that a policy of higher budget deficits in the face of an unchanged monetary policy will lead to certain real effects. We get no evidence on whether this proposition is true by examining, as Niskanen does, simple correlations between realized values of deficits and other variables. Those correlations are essentially meaningless. (An appendix, available on request, supports my criticisms more explicitly.)

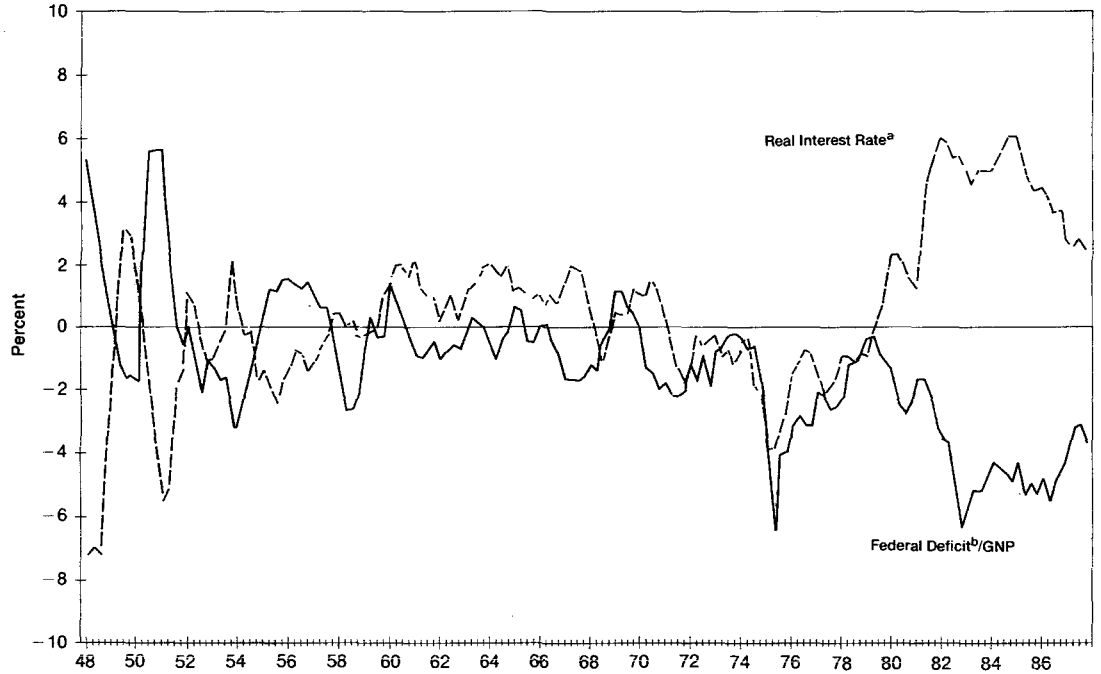
Budget deficits can change for essentially three reasons, but the proposition applies to only one such change. The correlations Niskanen examines just confound the effects of deficit changes from the three separate sources.

Budget deficits are affected by the economy. A weaker economy, for instance, implies lower government revenues and higher expenditures for unemployment compensation. Budget deficits are also affected by policy actions within a given policy regime. For much of the postwar period, for instance, tax rates were cut when the economy was weak and raised when it was strong, all within a regime of approximate budget balance over the business cycle. And finally, budget deficits can be affected by a change in budget regimes, such as a permanent cut in taxes.

The reason this distinction among the three types of deficit changes is important is that each can be expected to be related differently to other real economic variables. For example, budget deficits caused by a weak economy should go along with low interest rates as a fall in demand affects both; budget deficits caused by policy actions within a given policy regime may have little effect on interest rates since people come to expect the actions and adjust to them; but

FIGURE 1

DEFICITS AND INTEREST RATES
QUARTERLY 1948–1987:4



[a]Difference between four-quarter moving average in the three-month Treasury-bill rate and the four-quarter percentage change in the gross national product (GNP) implicit price deflator.
[b]As reported in the national income accounts.

budget deficits caused by a regime change could have large effects on interest rates as the allocation of goods across time is altered.

Because Niskanen's evidence does not make these distinctions about deficits, I find it unconvincing. There is empirical evidence that the budget policy regime changed when Reagan came into office (see Miller and Roberds 1987). And there is evidence that real variables responded as my theory predicted. All that Niskanen's evidence is picking up is the average correlations historically between selected variables and budget deficits caused by either economic changes or policy actions under a given regime.

This point is clearly illustrated when we examine the behavior of deficits and interest rates (Figure 1). Although there was only a weak relationship historically between deficits and interest rates when one budget regime was in force, that relationship changed when Reagan's policies were implemented.

This difference between a policy regime change and a policy action is also crucial in Niskanen's incremental debt calculation. He seems to acknowledge that there has been a regime change when he states that the "large recent decline in net foreign investment by the United States was due . . . to the fact that the deficit did not decline as usual during the current recovery." We might then want to characterize the change in policy as a permanent real increase in budget deficits of $100 billion per year rather than a one-time increase of $100 billion—as Niskanen uses in his debt calculation. The incremental increase in debt caused by a steady stream of $100 billion per year forever at Niskanen's 4 percent real interest rate is equivalent to $2.5 trillion, or a 12.5 percent increase in the world's total. That hardly seems insignificant.

So, while Niskanen and I reach the same destination, we travel different routes. My route reveals more concerns about our budget policy and leads me to take Niskanen's conclusions, perhaps, more seriously than he does.

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CONFLICTING VIEWS OF THE TWIN DEFICITS

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William Niskanen would have us believe that a series of mysteries surrounds the relation, or lack thereof, between the twin deficits. The truth seems to me altogether more boring: Economists actually do understand the relations tolerably well.

Niskanen's Challenge to the Conventional View

The conventional view is that an *exogenous* increase in the structural budget deficit can be expected to result in a (smaller) increase in the current account deficit. This view does not rest on two separate "pillars," one an identity and the other a plausible causal chain, but rather emerges from a wide class of models that embody *both* the identity

$$F = G + (I - S)$$

where F = current account deficit, G = the budget deficit, and $(I - S)$ is the private sector financial deficit, *and* the so-called "Feldstein chain." (As I am sure Martin Feldstein would be the first to admit, he did have some intellectual antecedents!)

In certain special cases, these models generate extreme results. For example, with the Ricardo-Barro effect equal to -1, or complete crowding out, an exogenous change in the budget deficit will have no impact on the trade balance.[1] Or with perfect goods arbitrage, as Ronald McKinnon nowadays assumes, the impact will be one-for-one. But with conventional parameter values the impact is partial.

Niskanen argues that the identity implies that protection by itself cannot change the trade balance. This is erroneous. In an underemployed economy, protection shifts purchases to domestic goods and

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[1]I thought it was a stylized fact that the Ricardo-Barro effect was about -0.5. Are the results in Masson and Knight (1986) atypical?

thus raises income, which generates endogenously the increased savings that preserve the identity.[2] The case for free trade is overwhelming, but we weaken it by deploying patently specious arguments in its support.

It had never before occurred to me that absence of a close historical relationship between fiscal deficits and current account deficits, either intertemporally in U.S. experience (Niskanen's Figure 1) or internationally[3] (his Figure 2), would be taken to constitute evidence against the conventional view. Perhaps McKinnon should feel uncomfortable with this evidence, but most of us have little difficulty conceiving of explanations. For example, an investment boom tends both to reduce the budget deficit and to increase the trade deficit. So if the range of variation in the strength of investment has been comparable to exogenous variations in the budget deficit, it is entirely possible that no systematic positive relationship between trade and fiscal deficits will show up in the raw data.[4]

Let me move on to discuss Niskanen's "plausible hypothesis": Increased budget deficits increase real interest rates, which appreciate the real exchange rate, which increases the real trade deficit. This "Feldstein chain" is not valid always and everywhere. For example, the market expected the increased fiscal deficits in the early years of Mitterrand's government to be monetized, which naturally depreciated rather than appreciated the French franc. Neither is it the unique channel from budget to trade deficits. A second relation is important as long as the economy is below full employment: An increased budget deficit increases real income, which increases the trade deficit as more imports are bought due to income effects. This second relation would seem to rest upon some of the most secure links known to econometrics, the only possible exception being the Ricardo-Barro challenge to the hypothesis that budget deficits are expansionary. But let us concentrate on the full-employment comparison and whether the links in the Feldstein chain are as tenuous as Niskanen claims.

[2]This result is unambiguous if the exchange rate is fixed, but depends upon capital mobility when it floats. With a floating exchange rate and zero capital mobility it is true that protection does not increase income, but that is still not because of an identity.

[3]Neither had I realized the generality of fiscal virtue before seeing Figure 2: Only 4 of 20 countries are shown as averaging fiscal deficits over the period 1970–84. But then, only 4 countries out of 20 managed to have payments surpluses. Is the world really like this?

[4]The historical interrelationships of private and public savings-investment balances and the current account are extensively analyzed in Marris (1987, ch. 1).

He cites two papers of Paul Evans (1985, 1987) to question whether bigger budget deficits raise interest rates. The first of the two papers essentially points out that the United States has had large budget deficits on three occasions between 1858 and President Reagan—during the Civil War, World War I, and World War II—and that these were not periods of particularly high real interest rates. (This takes many pages of econometrics.) What the author never asks is whether relevant economic behavior, like savings behavior or portfolio management, might change during total war. Total war is, after all, a rather powerful social experience, as those of us who almost made the "Hope and Glory" generation can testify, and would seem quite capable of shifting the savings propensity a few points (especially as governments try very hard to suppress consumption) or discouraging frivolous activities like calling one's broker.

The other Evans paper is a Friedman-Meiselman (1963) type of reduced form regression of interest rates on variables that include the budget deficit. So far as I can see, Evans' 1987 paper suffers from the same defect that rendered the Friedman-Meiselman paper of no value in discriminating between alternative hypotheses, namely that it neglects the possibility of reverse causation. If fiscal policy tended to become more expansionary when the economy was weak and therefore interest rates were low, this shows up as rejection of the hypothesis that budget deficits raise interest rates.

The two Evans papers are supplemented by assertions that an extra $100 billion of U.S. goverment debt increases the world real interest rate by only 2 basis points on a consol plus a portfolio effect specific to the U.S. government. The empirical basis of the quantitative estimate is not evident.

Niskanen's challenge to the conventional view that an increase in the real interest differential raises the real exchange rate is no more convincing. This relationship does not depend on constancy of the forward rate: That is merely a convenient expositional simplication. It depends on uncovered, and not covered, interest parity. His "evidence" is simply irrelevant.

I would suggest that a more reliable source of evidence for assessing the impact of budget deficits on the trade balance than those cited by Niskanen is to be found in the large econometric models. I do not need to do this link by link, for an authoritative recent study has addressed precisely the issue in hand on the basis of a series of the principal models. Helkie and Hooper (1988) find that on the basis of the average results of nine models the U.S. fiscal expansion over 1980–85 they can explain (through its direct effect on income as well as through the Feldstein chain) some $70 billion of the $143 billion

deterioration in the U.S. current account over the years 1980–86. Foreign fiscal contraction accounts for a further $25 billion.

The Relevant Conclusion

The conclusion seems to be inescapable. The trade deficit as well as the budget deficit results in substantial measure from the fiscal adventures of the early years of the Reagan administration. Even the Council of Economic Advisers (1988, pp. 109–11) accepts this as a fact.

Let us hope that the complacency toward the trade deficit that Niskanen expresses in the final pages of his paper will prove to be better justified than his analysis of its causes, and that the United States will escape the financial crisis that has sooner or later overtaken every other country to have allowed its external financial affairs to get into such an unholy mess. One of the tragedies of the 1980s was that there was no international monetary order capable of offering any defense against the irresponsible rejection of such knowledge as economists actually do possess in the pursuit of ideological whims and populist dreams like not paying taxes. Is it too much to hope that if and when Niskanen's complacency proves unjustified we may be governed by men of vision who grasp the opportunity to recreate a world monetary order that offers such a defense in the future?

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