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LEARNING FROM THE REAGAN DEFICITS

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ABSTRACT

This paper draws six observations from the U.S. fiscal policy actions of the 1980s and their apparent macroeconomic aftermath, in each case focusing on implications for familiar debates about economic behavior: (1) Across-the-board cuts in personal income tax rates reduced the government's tax revenues. (2) Reducing tax revenues did not restrain government spending, at least not by enough to avoid the emergence of historically large deficits. (3) Greater government deficits did not result in greater private saving. (4) Greater deficits did result in -- or at least coincide with -- higher real interest rates. (5) Greater deficits did result in reduced private investment. (6) Greater deficits also resulted in lower net foreign investment.

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LEARNING FROM THE REAGAN DEFICITS

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During Ronald Reagan's eight-year presidency, the United States Government spent \$1,413 billion more than it received in revenues.¹ The borrowing that the Treasury did to cover this shortfall approximately tripled its outstanding interest-bearing debt, or about doubled it after allowance for inflation.

In contrast to the major episodes of large deficits and heavy borrowing earlier in U.S. history, the nation was not at war during this period. Nor did weak business conditions account for much of the budget imbalance. During 1982-89 the federal deficit averaged 4.1% of gross national product, or 3.3% with both spending and revenues calculated on a high-employment basis (see Table 1, columns 1 and 2).² A chronic imbalance of this magnitude, even in peacetime and even at full employment of the economy's resources, stands out as a sharp departure from prior U.S. experience.

From the perspective of economic inquiry, this departure presents a potential learning opportunity not to be missed. Macroeconomics is not a laboratory science, and under normal conditions controlled experiments testing the effects of fiscal and monetary policies are not possible. To their credit, many economists have already focused on the Reagan fiscal program and its consequences to draw lessons that under more ordinary circumstances are hard to ferret out from actions of smaller magnitude and shorter duration.

This paper draws six observations from the U.S. fiscal policy actions of the 1980s and their apparent macroeconomic aftermath, in each case focusing on

implications for familiar debates about economic behavior. Making observations is not the same as testing behavioral hypotheses, of course, nor did the Reagan fiscal program constitute a controlled experiment in any scientific sense. Nonetheless, the major outlines of what happened during this episode -- which has not ended, as of the time of writing -- do speak, fairly directly, to questions that have figured prominently in the discussion of fiscal policy in recent years at both the theoretical and the practical level. Hence even technically sophisticated attempts to test fully specified hypotheses must somehow address these broad patterns in the fiscal and economic performance of the time.

OBSERVATION #1: Across-the-board cuts in personal income tax rates reduced the government's tax revenues.

This outcome presumably came as no surprise to most readers of the American Economic Review. Evidence was well in hand, a decade or more ago, showing that the relevant wage elasticity of labor supply was nowhere near as large as would have been necessary to validate the widely publicized claim that cutting personal tax rates across the board, in Kemp-Roth fashion, would increase tax revenues. Given that the average federal income taxpayer before Kemp-Roth was in the 21% marginal bracket -- or about 30% after plausible allowance for payroll taxes and state income taxes -- the elasticity of labor supply with respect to the after-tax wage would have to have been approximately 2 1/2 to leave revenues unchanged by a cut in rates, or greater than 2 1/2 for revenues to increase. By contrast, standard estimates of labor supply elasticity at the time ranged from -0.15 to 0.3 for males, and from 0.2 to 0.9 for females.³

The Economic Recovery Tax Act of 1981 cut marginal personal income tax rates by 25% between October 1981 and July 1983. Despite the vigorous economic recovery that ensued (6.5% real growth over the first four quarters following the recession trough in 1982:IV), individual income tax payments declined from \$298 billion in 1982 to \$289 billion in 1983, and then merely rose back to \$298 billion in 1984. The Commerce Department's static analysis indicated that these payments would have been \$110 billion greater in 1984, and \$154 billion greater in 1986 (the last year before the tax code changed again) under the old rates. Even the most generous estimates of the positive revenue consequences of any induced "supply side" aspects of the 1983-86 economic expansion do not approach these magnitudes.⁴

All this is not to say that targeted tax cuts affecting specific categories of income or specific kinds of transactions might not increase tax revenue in some cases, or that even across-the-board rate cuts might not do so if rates were high enough to begin with (the revenue curve must have a peak somewhere). But under the actual circumstances of the United States, the tax cuts of 1981-83 apparently had about the effect a knowledgeable economist would have predicted. What is surprising in retrospect is that so many people were prepared to predict the opposite.

OBSERVATION #2: Reducing tax revenues did not restrain government spending, at least not by enough to avoid the emergence of historically large deficits.

One interpretation of the Reagan fiscal program, which has received substantial attention in popular discussion though surprisingly little in the professional economics literature, is that the loss of revenue following the Kemp-Roth tax cut was not an accident but a deliberate stratagem intended to

force a reduction in federal spending. In brief, the idea is that the government, faced with a choice between reduced spending and enlarged budget deficits, would opt for the former. In President Reagan's familiar analogy, the U.S. Congress behaves like a spoiled child: The way to stop its spending is to cut off its allowance.

While assessments of the evidence on this proposition differ, most observers apparently accept that the trajectory of federal spending since the mid 1980s has been lower because of the pressure to keep the deficit from widening indefinitely, so that the 1980s experience did at least partially validate the Reagan view in this respect. Saying anything much more specific on the question would require spelling out a hypothesis about the relevant dynamics, which for the kind of political-economic interactions at issue here could plausibly involve very long lags.

At the same time, the 1980s experience also makes clear that reducing tax revenues did not restrain spending by a large enough amount, or quickly enough, to avoid record size deficits that have now persisted for a decade. In 1990 the gap between federal spending and revenues on a high-employment basis was still 3.2% of gross national product, larger than in any year from the end of World War II until the Reagan presidency.⁵

OBSERVATION #3: Greater government deficits did not result in greater private saving.

Even very large government deficits would be of little practical economic import if, as the Ricardian equivalence theorem suggests, individuals acted to offset them by saving more either on their own account or via the private businesses that they own. During the 1980s, however, private saving moved in the opposite direction, compounding rather than offsetting the government's

dissaving. Hence federal government saving, private saving and overall national saving (inclusive of saving by state and local governments as well) all fell to record lows relative to national income (see Table 1, columns 3 and 4). Within the private saving total, both household saving and corporate retentions posted lower averages, compared to income, in the 1980s than in the 1950s, 1960s or 1970s.

The apparent contrast between the behavior of U.S. private saving in the 1980s and the implications of Ricardian equivalence has already stimulated voluminous research. At the empirical level, the object has been to examine the role potentially played by any or all of a variety of influences -- for example, demographic shifts, rising asset values, changes in pension arrangements -- that might independently have depressed saving in the 1980s, so that saving calculated after allowance for these influences would exhibit behavior more nearly consistent with (or at least not so directly at variance to) the Ricardian hypothesis. The predominant conclusion of this research is that, at most, such factors can perhaps account for why private saving fell.⁶ But even if the appropriate measure of private saving had simply held steady in this period, in light of the large government deficit that would still have been a failure for Ricardian equivalence. Not surprisingly, therefore, the focus of much recent research at the theoretical level has been to explore reasons -- for example, uncertain future incomes or tax rates, imperfect perceptions of government fiscal actions, population growth due to immigration -- why Ricardian equivalence should not be expected to obtain in the first place.⁷

OBSERVATION #4: Greater deficits did result in -- or at least coincide with -- higher real interest rates.

This point is a corollary of Observation #3. The standard interpretation of Ricardian equivalence holds not only that government dissaving elicits private saving but also that, in the presence of this private saving response, real interest rates remain unchanged. While it is possible in principle to imagine a world in which these two implications need not stand or fall together (for example, if investment demand were perfectly elastic), for practical purposes it makes sense to think of the two jointly. Indeed, the empirical literature testing Ricardian equivalence more often examines the behavior of interest rates and other asset returns than saving flows directly.

In the wake of the Reagan deficits, the Ricardian prediction for interest rates held up no better than the parallel prediction for private saving. Short-term interest rates stood at a record wide premium over the prevailing rate of price inflation almost throughout the decade (see Table 1, column 5) -- and not just on a decade-average basis but on a year-by-year basis as well. From the end of World War II until 1980, the year-average difference between the commercial paper rate and the rate of change of the implicit GNP deflator was never as great as 3% per annum. From 1980 through 1990 that difference was never as small as 3% per annum. Drawing inferences about long-term real interest rates is more problematic, but if the steady 3-4% per annum inflation that prevailed during 1983-90 even roughly corresponds to inflation expectations over the period, long-term real interest rates were at record highs as well.

Showing that larger deficits coincided with higher real interest rates is not the same as establishing that larger deficits caused higher real interest rates. (If macroeconomic research were that simple, there would no longer be

any debate at all over Ricardian equivalence.) It is always possible that some influence other than the larger deficits caused the higher real interest rates of the 1980s. Tight monetary policy is one candidate -- especially during 1981-82, when real interest rates were at their peak and the high-employment deficit was not yet all that big -- but the suggestion that monetary policy can have a sizeable influence on real interest rates over a period as long as a decade runs counter to most current macroeconomic thinking. Enhanced profitability of investment is another possibility, although making this concept operational is problematic too. At the very least, the fact that large government deficits coincided with high real interest rates in the 1980s stands as another major empirical obstacle to the Ricardian notion's credibility.

The combination of Observations #3 and #4 is also informative in the context of the debate over the interest elasticity of saving. The change from an average pre-tax real interest rate of 0.22% in the 1970s to 4.74% in the 1980s (see again Table 1, column 5) was very large compared to what advocates of tax reduction and tax reform once regularly argued would be sufficient to stimulate private saving. The after-tax increase was even greater for most taxable savers, both because the 1981 and 1986 tax bills reduced statutory marginal tax rates on investment income and because inflation slowed (which matters because of the nonneutrality of the tax code). Yet there was still no visible positive response from private saving.

OBSERVATION #5: Greater deficits did result in reduced private investment.

The main reason why government deficits are an object of macroeconomic attention in the first place is the concern that large deficits, especially if maintained for a substantial period of time under conditions of full

employment, will "crowd out" private investment.⁸ Given the basic links between capital formation and productivity, between productivity and wages, and ultimately between wages and living standards, this concern is easily understandable. The chief question in this context is whether the deficit actually does constrain capital formation under any specific set of circumstances.⁹

In light of the pronounced decline of national saving as a share of national income in the 1980s, it is hardly surprising that the share of U.S. income devoted to investment also declined. Private domestic investment, measured either gross or net of economic (not tax) depreciation, averaged a lower share of national income than in the 1950s, 1960s or 1970s (see Table 2, columns 1 and 2). Conversely, the share of national income devoted to personal consumption expenditures rose to record highs.

Within the total of private investment, all three major categories -- investment in business plant and equipment, in housing, and in business inventories -- declined. Plant and equipment investment in particular, the focus of much of the "crowding out" debate because of its more direct implications for productivity, declined relative to income almost monotonically throughout the decade (see Table 2, columns 3 and 4). Gross of depreciation, the plant and equipment share of income declined from a postwar peak of 12.1% in 1981 to 9.6%, equivalent to the average for the 1950s, in 1990. The corresponding decline net of depreciation was from 3.2% in 1981, about equal to the prior postwar average, to a postwar record low of 1.4% in 1990.¹⁰

To the extent that the decline in investment is what the deficit debate is really all about, this investment performance shows that the trajectory of government dissaving may be as important in a macroeconomic context as the level. Given the arbitrary (and from an economic perspective, just

wrong-headed in some cases) conventions of government accounting, a familiar argument is that the standard measures of the government's debt and deficit are seriously misleading.¹¹ That may well be so. But the real question at issue in this context is not whether what the government reports as a large deficit is actually a small one, or perhaps even a surplus, but whether the government under one fiscal program is absorbing more of the economy's available saving (or adding to it less) than under an alternative fiscal program. The record of U.S. private domestic investment in the 1980s suggests that, whatever the level of such absorption at any point in time may be under the conceptually optimal set of accounting constructs, the experience commonly recognized as a widening deficit under the Reagan program did represent a reduction in the amount of saving available for investment.

OBSERVATION #6. Greater deficits also resulted in lower net foreign investment.

If the United States were a closed economy, the connection between Observation #3 about saving and Observation #5 about investment would be an identity. If anything, however, the surprise in the macroeconomic consequences of the Reagan fiscal program, compared to conventional prior expectations, lay in the extent to which the United States turned out to be an open economy. Given the combination of increased government dissaving and reduced private saving, the decline in U.S. private domestic investment would have been even sharper had inflows of foreign capital not supplemented shrunken national saving (see Table 2, column 5). And given the relationship between an open economy's capital account and current account, these capital inflows also corresponded to a major decline in U.S. competitiveness against foreign producers, in markets both at home and abroad.

The abrupt transformation in the international position of the United States, from a modest but steady capital exporter from the end of the nineteenth century through the 1970s to a substantial capital importer in the 1980s, has probably attracted more public attention -- and has certainly generated more outspoken expressions of public concern -- than the decline in domestic investment. Here too, the change that took place was a matter not just of a large impact in a few specific years. Between the end of World War II and 1980, U.S. net foreign investment was negative in only six years out of 35, and in no year during this period was it ever more negative than 1% of national income. By contrast, U.S. net foreign investment was more negative than 1% of national income in every year between 1983 and 1990.

It is worth repeating in conclusion that drawing observations like the six offered here cannot take the place of carefully designed testing of well specified behavioral hypotheses. The role of empirical macroeconomic research is to do just that, by looking at the relevant data in finer detail and, in so far as is possible, taking account of diverse influences in ways that distinguish partial from simple correlations. But in carrying out those detailed investigations it is also important not to lose sight of the broad dimensions of what happened during the course of what was, after all, one of the most dramatic policy experiments in U.S. macroeconomic experience.

Footnotes

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1. This total spans fiscal years 1982-89. (The U.S. Government's fiscal year ends on September 30.) Most aspects of the government's fiscal 1981 budget were already set by the time Mr. Reagan became president. Similarly, the fiscal 1989 budget was mostly due to President Reagan, not President Bush.
2. Comparisons to GNP are for calendar years, on a National Income and Product Accounts basis.
3. See, for example, Kalachek and Raines (1970), Aschenfelter and Heckman (1973, 1974), and Hausman (1981).
4. Lindsey (1990), for example, estimated a direct "supply-side" effect of \$20.7 billion, plus a further \$21.1 billion "pecuniary" effect of asset reshuffling, for 1985.
5. There is also ample room to question President Reagan's association of resistance to spending cuts solely with Congress. If Congress had adopted each of his budget proposals exactly as he submitted them, annual federal spending for all items other than interest on the national debt would have

been below actual spending levels by \$18 billion, on average during fiscal 1982-89. The annual deficit during these years averaged \$177 billion.

6. See, for example, Summers and Carroll (1987).
7. See, for example, the various lines of argument surveyed by Bernheim (1987).
8. When the economy has unused resources, the deficit could easily "crowd in" investment via either standard accelerator effects or the portfolio effects examined in Friedman (1978).
9. Although the discussion in this short paper focuses on private fixed investment, the argument appropriately applies to government-provided infrastructure and to investment in human capital as well. These too have not advanced, or have declined, since 1980.
10. As Table 2 shows, these comparisons do not merely reflect the beginning of a recession as midyear 1990. The gross plant and equipment share last exceeded 10.0% in 1986, and the corresponding net share last exceeded 2.0% in 1985.
11. See, for example, Eisner and Pieper (1984) and Kotlikoff (1988).

TABLE 1

DEFICITS, SAVING, AND REAL INTEREST RATES, 1951-1990

<u>PERIOD</u>	<u>DEF</u>	<u>SDEF</u>	<u>NPS</u>	<u>NNS</u>	<u>REALR</u>
	<u>% OF GNP</u>				<u>% p.a.</u>
1951-60	0.2	-0.5 ¹	7.5	7.1	0.2
1961-70	0.5	1.0	8.2	7.8	1.9
1971-80	1.8	1.7	8.0	7.0	0.2
1951-80	0.8	0.9 ²	7.9	7.3	0.8
1981-85	4.3	3.6	6.1	3.2	5.4
1986-90	3.4	4.1 ³	4.4	2.0	4.1
1981-90	3.8	3.8 ⁴	5.2	2.6	4.7

Definitions: DEF - federal government deficit (National Income and Product Accounts basis)

SDEF - federal government deficit (high-employment basis)

NPS - net private-sector saving

NNS - net national saving

REALR - commercial paper rate minus growth of GNP price deflator

Notes: ¹1955-60
²1955-80
³1986-88
⁴1981-88

TABLE 2

DOMESTIC AND FOREIGN INVESTMENT, 1951-1990

<u>PERIOD</u>	<u>GPDI</u>	<u>NPDI</u>	<u>GPE</u>	<u>NPE</u>	<u>NFI</u>
<hr/>					
<u>% OF GNP</u>					
1951-60	15.8	7.0	9.6	3.0	0.3
1961-70	15.5	7.1	9.9	3.5	0.6
1971-80	16.5	6.7	10.8	3.3	0.2
1951-80	15.9	7.0	10.1	3.3	0.4
1981-85	15.9	4.5	11.2	2.3	-1.2
1986-90	15.0	4.3	9.9	1.6	-2.5
1981-90	15.4	4.4	10.6	2.0	-1.8

Definitions: GPDI - gross private domestic investment
NPDI - net private domestic investment
GPE - gross investment in plant and equipment
NPE - net investment in plant and equipment
NFI - net foreign investment

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