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Federal Budget Trends and the 1981 Reagan Economic Plan

IN EARLY 1981, a newly inaugurated Ronald Reagan announced an economic plan which included goals of "an immediate, substantial, and sustained reduction in the growth of federal expenditures [and] a significant reduction in federal tax rates . . ."[1] After two terms in office, it seems time to examine the original Reagan budget plan in light of the actual performance over the 1980s. Although the budget plan had far-reaching economic and social consequences, this article focuses on the extent to which the initial budget projections were realized.[2]

First, the 1981 economic setting, which provided the underlying rationale for the Reagan plan, is summarized. Then, because the budget and economic conditions are interrelated, the 1981 economic assumptions are examined in retrospect. This is followed by a comparison of planned and realized changes in federal outlays and receipts. The article concludes with an evaluation of the 1981 budget plan.

THE 1981 ECONOMIC FORECAST IN RETROSPECT

When the Reagan administration began preparing its budget in late 1980 and early 1981, the U.S. economy was recovering from a brief recession in the first half of 1980. Output was growing sluggishly for a recovery phase of the business cycle, unemployment was well above 7 percent of the labor force and productivity, as measured by output per hour, was declining. Prices generally were increasing at double-digit rates and interest rates reflected the high rate of inflation. The federal budget deficit for fiscal 1980 was $60 billion and the outgoing administration's estimate for 1981 was about $55 billion.

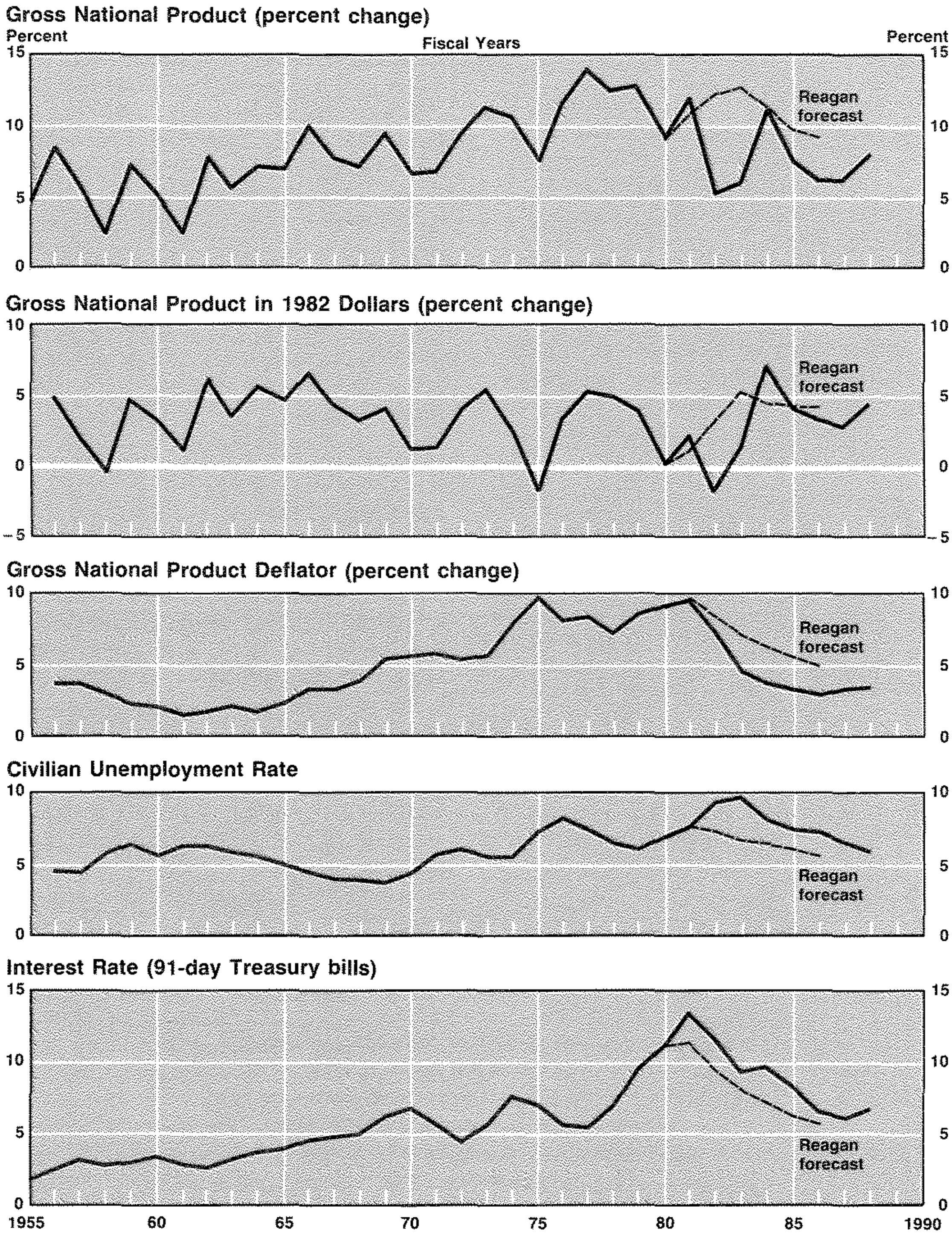
The incoming president described the situation as "the most serious set of economic problems since the 1930s."[3] The most important cause of these problems, he suggested, was the government itself: through taxes, spending, regulatory policies and monetary policies, it had sacrificed

[1] *America's New Beginning* . . . (1981), pp. 1–3. For further details, see Office of Management and Budget (1981a) and Carlson (May and November 1981).

[2] For more extensive analyses of the Reagan years, see Boskin (1987), Mills and Palmer (1984), Modigliani (1988) and Niskanen (1988).

[3] *America's New Beginning* . . . (1981), p. 4.

Figure 1
Actual Movements vs. Reagan Forecasts of Key Economic Variables



long-term growth and price stability for ephemeral short-term goals. To combat these problems, the administration proposed a program that was intended to:

> restore fiscal integrity; increase incentives for saving, investment, and production; attain monetary and financial stability; and enhance the role of the marketplace as the principal force in the allocation of resources.[4]

An important part of every budget program is the set of underlying economic assumptions.[5] Figure 1 shows the administration's 1981 forecasts for a variety of key economic variables along with their actual performance. As the top tier shows, the administration overestimated the growth in nominal GNP from 1980 to 1986 by a substantial amount.[6] In particular, it did not forecast the 1981–82 recession nor did it foresee the sharp reduction in nominal GNP growth after 1984. By 1986, the cumulative error for GNP was over $800 billion, or almost 20 percent of the actual level of GNP in 1986. This error reflected an actual GNP growth rate of 7.8 percent over the 1980–86 period, quite a bit lower than the assumed growth rate of 11 percent.[7]

The overestimate of nominal GNP reflected overestimates of both real growth (second tier of figure 1) and inflation (third tier of figure 1). The cumulative error in forecasts of real GNP by 1986 was 7 percent while the GNP deflator was overestimated by 11 percent. The 1981 administration forecast for inflation for the 1980–86 period was a 7.1 percent annual rate; the actual inflation rate during this period was 5.1 percent.[8]

The fourth tier of figure 1 indicates that the unemployment rate was underestimated in each of the years from 1981 to 1986. The administration forecast that the unemployment rate would rise in 1981, then fall to 5.6 percent by 1986; the actual 1986 rate was 7.1 percent.

Finally, as indicated in the bottom tier of figure 1, the Treasury bill rate was also underestimated. The Reagan administration forecast a steady decline in the Treasury bill rate from more than 11 percent in 1980 to 5.7 percent in 1986; the actual rate rose sharply in 1981, before falling to 6.4 percent in 1986.

These key economic variables generally moved unfavorably during the 1980–86 period in terms of their effect on the federal budget. The slower-than-forecast growth of nominal GNP slowed the growth of receipts and contributed to a larger deficit. Although slower-than-expected inflation helped to reduce the growth of budget outlays, slower real GNP growth and higher-than-forecast unemployment rates increased outlays, particularly for unemployment insurance. Meanwhile, the higher-than-expected Treasury bill rate also boosted outlays, especially when the government was borrowing more than planned. Thus, most of the errors in the administration's forecast were ones that increased the deficit more than projected.[9]

THE BUDGET TOTALS: REALIZATIONS VS. THE REAGAN PLAN

As figure 1 indicated, the Reagan administration's 1981 economic assumptions were erroneous. A related question is to what extent were the budget projections also erroneous? An obvious measure of this particular error is the difference between the planned and the actual surplus/deficit. Figure 2 shows the size of this discrepancy. The Reagan plan projected a steady move toward a balanced budget by 1986; the actual deficit for 1986 was $221 billion.[10] To better understand why the 1981 budget plan's projections were in error, individual budget categories are examined below.[11]

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[4] *Ibid.*, p. 9.

[5] Although such assumptions are absolutely necessary to project outlays and receipts, economic conditions themselves are influenced by congressional and legislative decisions that affect the budget. This was the administration's reasoning in 1981; its budget programs were designed to have a favorable effect on the economy. In fact, its economic assumptions were so optimistic, it felt compelled to say:

> Indeed they do represent a dramatic departure from the trends of recent years — but so do the proposed policies. In fact, if each portion of this comprehensive economic program is put in place — quickly and completely — the economic environment could improve even more rapidly than envisioned in these assumptions. [*Ibid.*, p. 25.]

[6] Generally, from this point on, all references to years are to fiscal years, i.e., the 12-month period ending September 30.

[7] Such a projection was not unusual in early 1981. For example, the Congressional Budget Office projected a 1980–86 nominal GNP growth rate in excess of 11 percent. See CBO (1981).

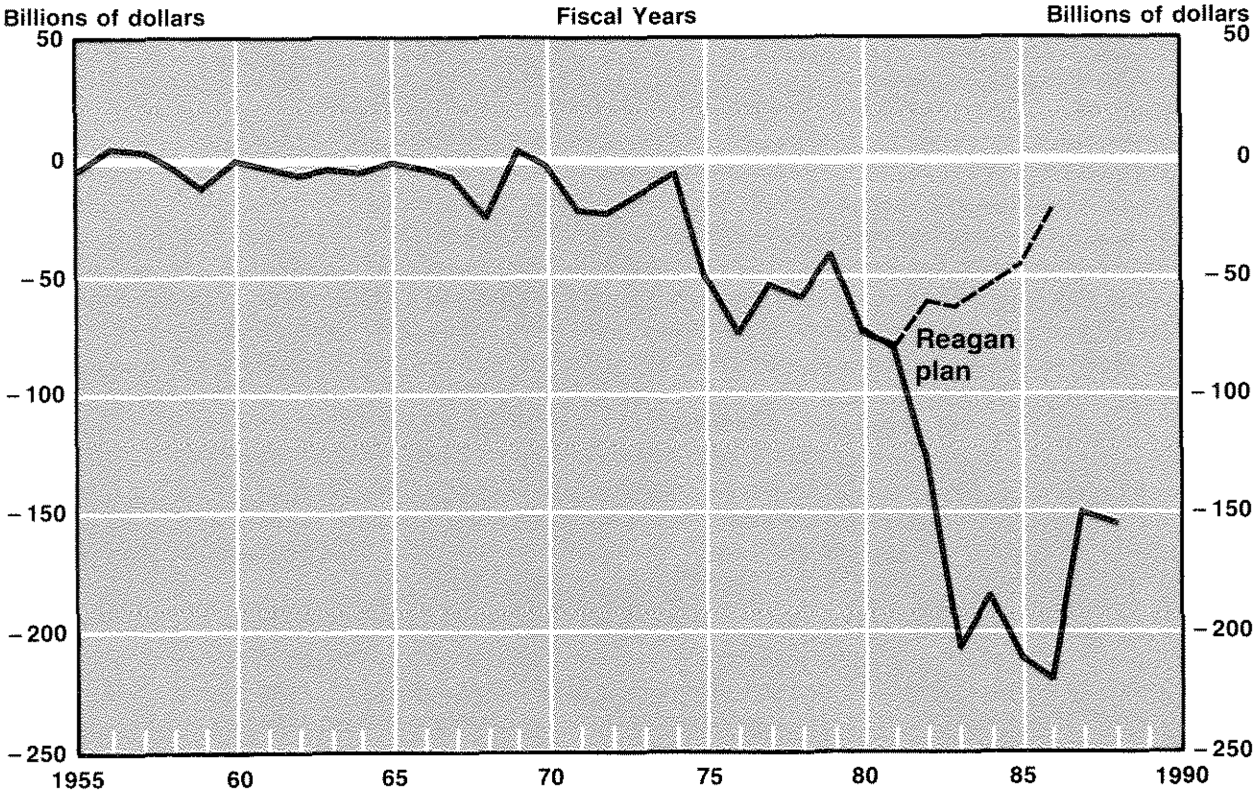
[8] By comparison, the CBO projected a 2.8 percent rate of real GNP growth and an 8.5 percent rate of inflation.

[9] For a statistical investigation of bias in government economic forecasts, see Belongia (1988).

[10] Throughout this article references to the "Reagan plan" are to the spending program that *excluded* what they called "unallocated savings." These were cuts in spending for which detail was to be provided later.

[11] The results of an alternative analysis using a small model of budget determination appears in appendix A.

Figure 2
Federal Surplus/Deficit



NOTE: Reagan plan does not include "unallocated savings."

Outlays

One major objective of Reagan's economic program was to

> reduce the rate at which government spending increases. . . . Thus, the badly needed effort to "cut" the budget really refers to reductions in the amount of increase in spending requested from one year to the next.[12]

The 1981 program for reducing the growth of outlays was subject to some confusion, however, because a target ceiling was set which included substantial "unallocated savings" that were to be specified later. In the following discussion, these unallocated savings are ignored.

Figure 3 shows the Reagan plan for real federal outlays along with actual real outlays. Total outlays in real terms clearly did not slow as much as planned. From 1976 to 1980, the average growth rate of real federal outlays was 3.5 percent. The actual rate of increase from 1980 to 1988 was 2.9 percent, only slightly slower than from 1976 to 1980 and well in excess of the 1.1 percent rate that the administration had projected in 1981.

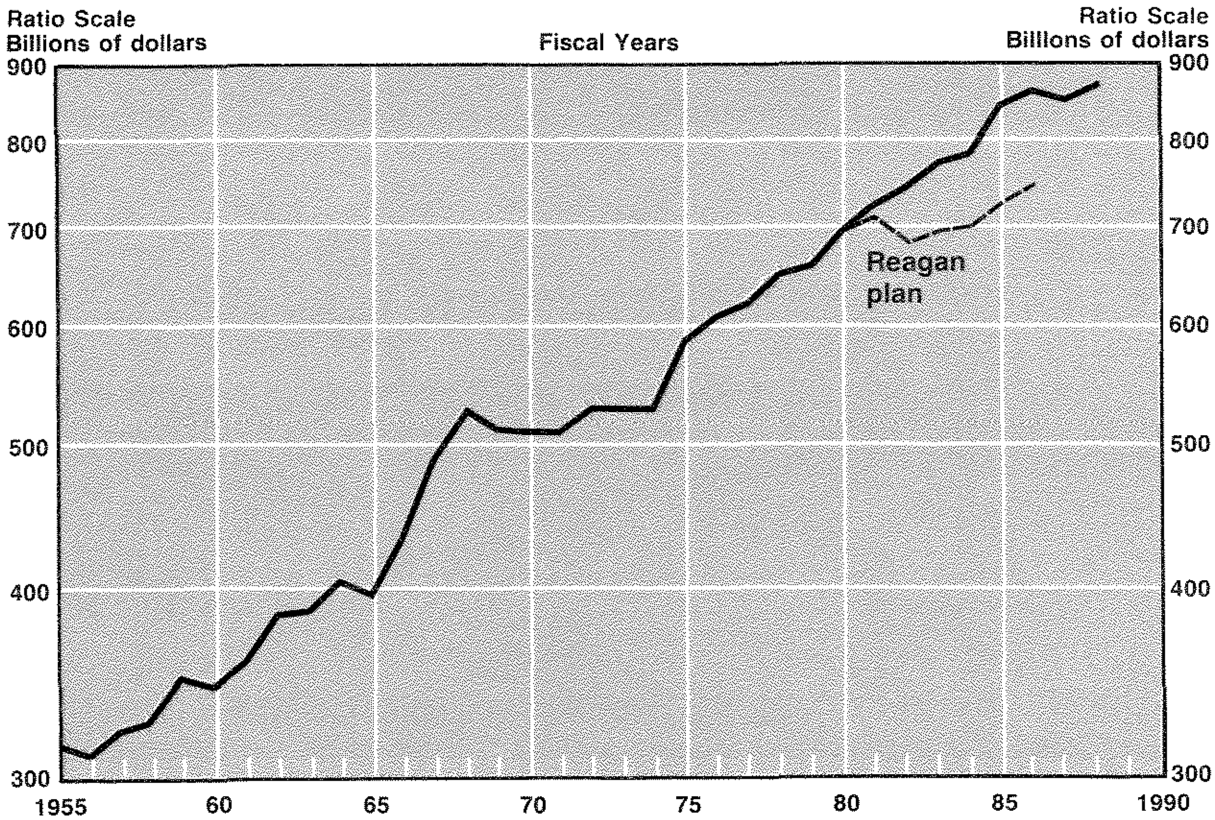
As figure 4 shows, another way to summarize budget trends is to examine the ratio of outlays to GNP. From 1955 to 1980, the ratio of total outlays to GNP rose, albeit irregularly.[13] Although the Reagan plan intended to reverse this trend sharply after 1981, this did not occur.[14]

[12] *America's New Beginning* . . . (1981), p. 10.

[13] This irregular movement reflects, among other factors, the business cycle as it affects both GNP and total outlays.

[14] The discrepancy in the 1980 ratio between the Reagan plan and the realized outcome reflects the upward revisions of GNP that have occurred since 1981.

Figure 3
Total Outlays (constant 1982 dollars)



NOTE: Reagan plan does not include "unallocated savings."

Receipts

Another key part of the 1981 economic program was a set of tax proposals that was intended "to improve the after-tax, after-inflation rewards to work, saving, and investment."[15] Among these proposals were reductions in marginal tax rates for individuals of 10 percent a year for three years starting July 1, 1981. For corporations, the chief feature of the proposed tax changes was an accelerated recovery rate for the cost of machinery and equipment and certain structures to be phased in over five years. In general, the effect of the proposed tax changes was to slow the growth of federal receipts by reducing the role of individual income taxes and corporate income taxes in the revenue structure.

Figure 5 shows the Reagan plan for total receipts along with actual receipts, both converted to constant 1982 dollars. Clearly, the trend of real total receipts slowed after 1981 and was much slower than planned. Real receipts plummeted in 1982 and 1983 due both to the reduction in tax rates and the 1981–82 recession. Since then, receipts have grown faster than in the 1981 Reagan forecast; because they fell so much in 1982 and 1983, however, their 1986 level was still below that projected by the administration in 1981.

When total receipts are charted relative to GNP (figure 6), the difference between what was planned in 1981 and what actually happened is quite pronounced. In an alternative way, this difference shows the influence of the recession and how it suppressed federal receipts relative to GNP.

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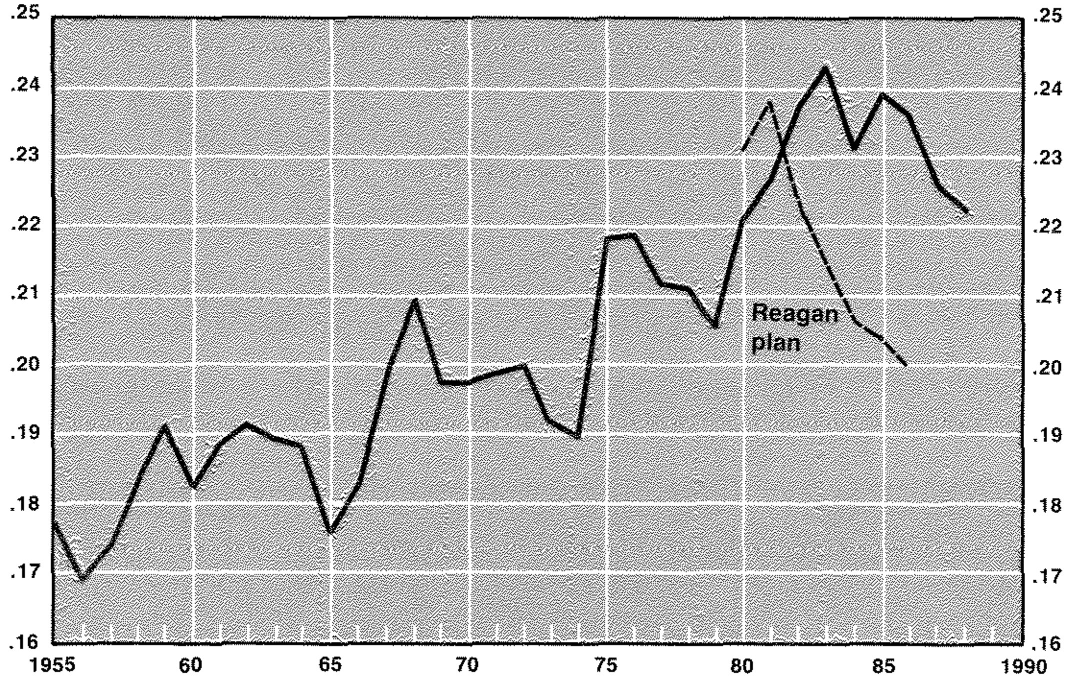
[15]*America's New Beginning* . . . (1981), p. 9.

Figure 4
Total Outlays Relative to Gross National Product



NOTE: Reagan plan does not include "unallocated savings."

Figure 5
Total Receipts (constant 1982 dollars)

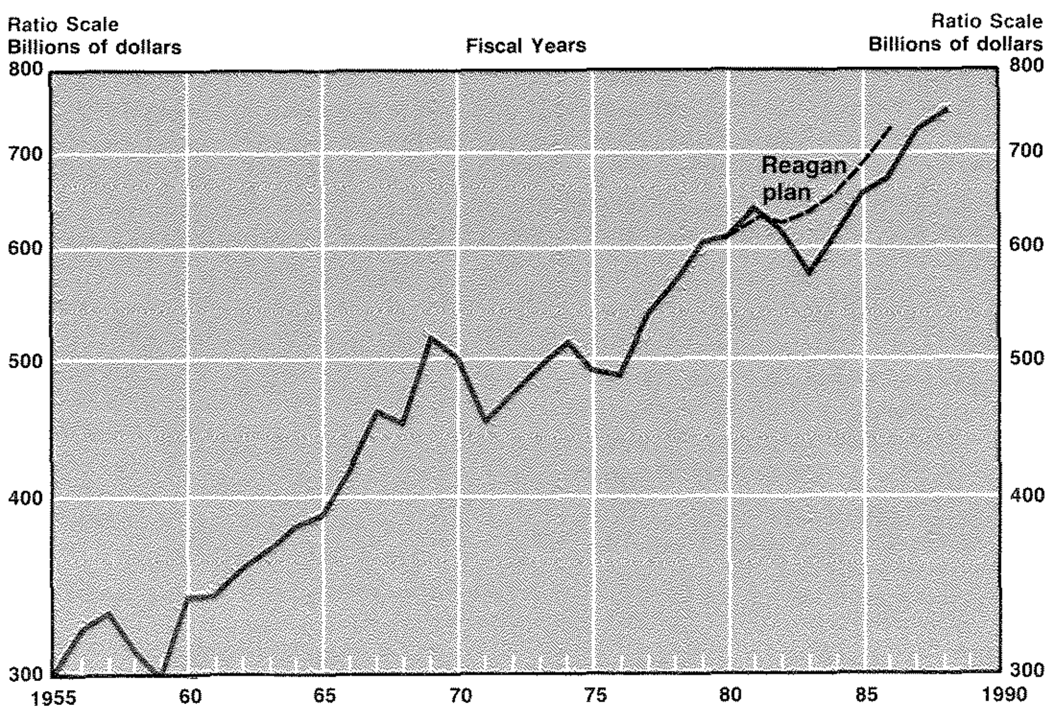
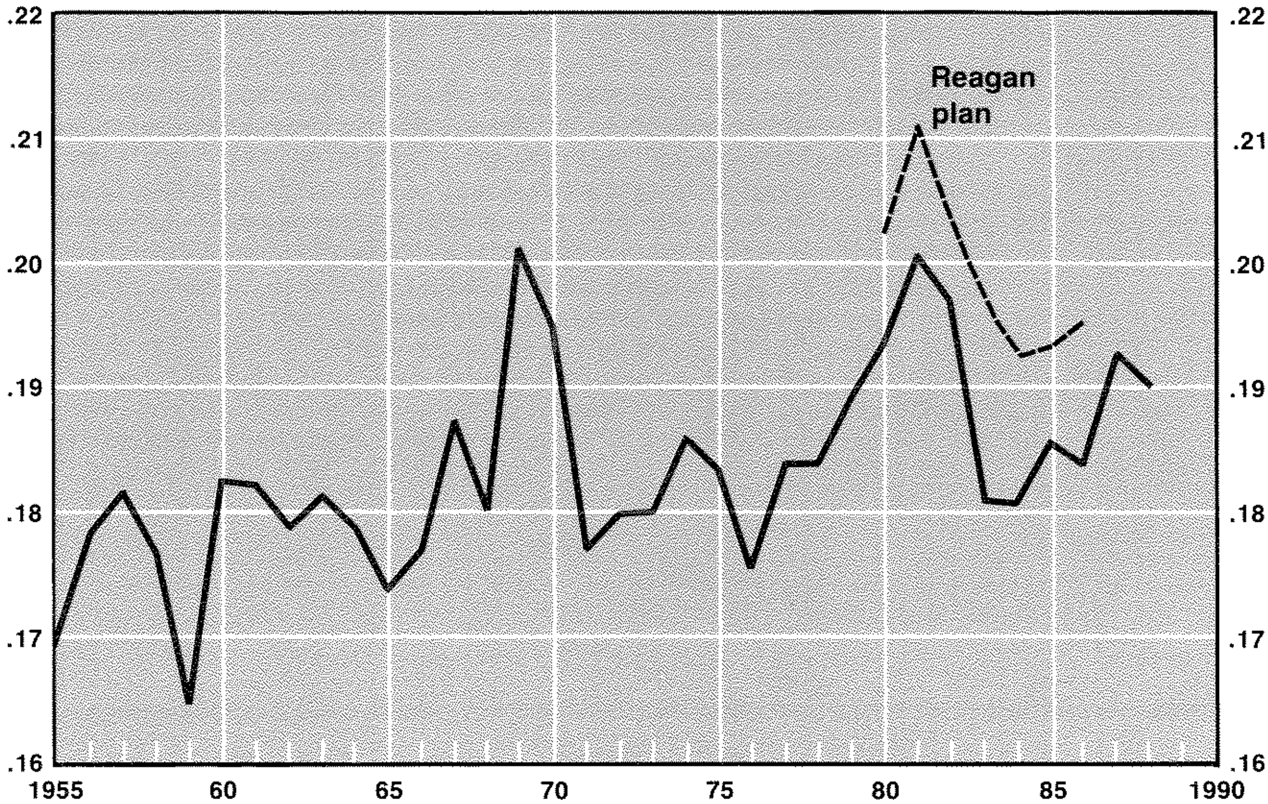


Figure 6
Total Receipts Relative to Gross National Product



THE COMPOSITION OF THE BUDGET: REALIZATIONS VS. THE REAGAN PLAN

The 1981 Reagan plan called for both a slowing in the growth of government outlays and a change in the composition of spending and receipts. The change in the composition of outlays was intended to:

> shift Federal budget priorities so that Federal resources are spent for purposes that are truly the responsibility of the national government . . . our budget plans reflect the increased importance attached to national defense, maintain the Federal Government's support for the truly needy, and fulfill our responsibilities for interest payments on the national debt. The spending reductions will restrain Federal involvement in areas that are properly left to State and local governments or to the private sector.[16]

The projected composition of total receipts reflected the two major tax changes: tax relief for individuals and greater tax incentives for investment by businesses.

Outlays

Table 1 shows the major components of outlays relative to total outlays.[17] The first column shows that the Reagan administration planned to increase national defense outlays from 22.9 percent of total outlays in 1980 to 35.7 percent in 1986. Although defense outlays did rise, the increase fell short of the planned level; by 1986, defense outlays were 27.6 percent of total outlays. Looking at it in a different way, the planned growth of real defense outlays were projected to grow at an 8.6 percent annual rate from 1980 to 1986; their actual rate of increase was 6.2 percent. The actual defense build-up, while slower than planned, did mark a reversal of the previous trend.

[16] *Ibid.*, p. 11.

[17] See appendix B for additional detail on these components.

Table 1
Composition of Federal Outlays (percent of total)

	National defense		Payments to individuals		All other grants		Net interest		All other	
Year	Actual	Reagan plan	Actual	Reagan plan	Actual	Reagan plan	Actual	Reagan plan	Actual	Reagan plan
1955	62.4%		20.9%		2.3%		7.2%		7.2%	
1960	52.2		26.2		4.9		7.5		9.2	
1965	42.8		28.0		6.1		7.3		15.8	
1970	41.8		33.1		7.9		7.4		9.9	
1975	26.0		46.2		10.0		7.0		10.8	
1980	22.7	22.9%	47.0	45.7%	10.1	9.6%	8.9	8.8%	11.4	13.0%
1981	23.2	23.9	47.7	46.8	8.5	8.1	10.1	9.4	10.4	11.8
1982	24.8	26.5	47.8	47.4	6.7	6.6	11.4	9.6	9.2	9.9
1983	26.0	29.3	48.9	47.3	6.3	5.9	11.1	8.9	7.7	8.6
1984	26.7	31.0	46.9	47.6	6.2	5.4	13.0	8.2	7.1	7.8
1985	26.7	34.0	45.0	46.9	6.1	4.9	13.7	7.3	8.5	6.9
1986	27.6	35.7	45.4	46.4	6.0	4.7	13.7	6.5	7.3	6.8
1987	28.1		46.7		5.2		13.8		6.3	
1988	27.3		46.9		5.1		14.3		6.5	

The nondefense portion of the budget was reduced, but, again, not to the extent that was planned. The plan called for nondefense outlays to fall to 64.3 percent of the total by 1986; the actual proportion was 72.4 percent. Table 1 provides further detail on nondefense outlays. While the plan for payments to individuals, relative to total outlays, seems close to the mark, the growth rate comparison shows a different story. Individual payment outlays rose faster than planned in real terms; the planned increase was a 1.6 percent average annual rate from 1980 to 1986 compared with the actual 2.8 percent rate of increase.

For the category of "all other grants" (the third column of table 1), the planned decline was realized in the first two years, but not afterward. Although grants in real terms fell rather dramatically at a 4.8 percent rate from 1980 to 1986, this was still less than the 10.7 percent rate of decline planned by the 1981 administration.

The fourth column of table 1 shows the most dramatic departure from the 1981 plan. Net interest outlays were forecast to decline sharply; instead, however, they rose sharply. Because this component of outlays cuts across all factors that affect the budget and reflects the general interaction of the budget with the economy, this forecast error serves as a summary measure of the accuracy of both the budget plan and the economic forecast.[18] Because outlays grew faster than planned while receipts rose more slowly, net interest outlays were twice as large as planned in 1981. Errors in receipts (overestimated) and outlays (underestimated), combined with an underestimate of interest rates, produced these large errors.

The final "all other" category of outlays shows a decline very close to, but generally somewhat less than planned.

Receipts

Table 2 shows the components of receipts relative to the total. The first column, individual income taxes, reflects the ambitious nature of the 1981 tax proposal. The administration proposed a 30 percent reduction in marginal tax rates for individuals over a three-year period beginning July 1, 1981. Marginal rates were to be reduced from an existing range of 14 percent to 70 percent to a range of 10 percent to 50 percent by January 1, 1984. This proposal was expected to reduce individual income taxes from near 47 percent of total receipts in 1980 to 43.9 percent in 1983; the percentage was then forecast to rise to 46.7 in 1986 because of its expected stimulus to activity via incentives to work and invest.

The general movement of individual income taxes relative to the total went according to plan;

[18]See appendix A.

Table 2
Composition of Federal Receipts (percent of total)

	Individual income taxes		Corporation income taxes		Social insurance taxes		Excise taxes		Other	
Year	Actual	Reagan plan	Actual	Reagan plan	Actual	Reagan plan	Actual	Reagan plan	Actual	Reagan plan
1955	43.8%		27.3%		12.1%		13.9%		2.9%	
1960	44.0		23.2		15.9		12.6		4.2	
1965	41.8		21.8		19.0		12.5		4.9	
1970	46.9		17.0		23.0		8.1		4.9	
1975	43.9		14.5		30.3		5.9		5.4	
1980	47.2	46.9%	12.5	12.4%	30.5	30.9%	4.7	4.7%	5.1	5.1%
1981	47.7	46.2	10.2	10.8	30.5	31.1	6.8	7.3	4.8	4.7
1982	48.2	44.3	8.0	9.6	32.6	33.0	5.9	8.6	5.4	4.5
1983	48.1	43.9	6.2	9.7	34.8	33.8	5.9	8.0	5.1	4.6
1984	44.8	44.1	8.5	9.3	35.9	34.2	5.6	7.6	5.2	4.9
1985	45.6	45.1	8.4	8.4	36.1	34.8	4.9	7.0	5.1	4.6
1986	45.4	46.7	8.2	7.7	36.9	34.8	4.3	6.4	5.2	4.3
1987	46.0		9.8		35.5		3.8		4.9	
1988	44.1		10.4		36.8		3.9		4.8	

the timing, however, was substantially different for several reasons. One of these was the timing of the actual legislation. What's more, an unanticipated recession occurred, and the anticipated boom in economic activity that was expected to follow on the heels of the tax program failed to develop.

The second column of table 2 summarizes corporate income taxes. Again, the Reagan plan was broadly realized. Corporate taxes were reduced and their role in the tax system was reduced, at least through 1986. The planned and the actual percentages were quite close in 1986, although the actual path of arrival from 1981 to 1986 was somewhat different than planned. Corporate income taxes were severely affected by the 1981–82 recession, dropping as a percentage of total receipts in 1982–83. Despite the erroneous economic forecast, however, the general contours of the Reagan corporate tax plans were realized. This pattern has been reversed since 1986, however; the Tax Reform Act of 1986 tightened provisions for accelerated depreciation of plant and equipment and repealed the investment tax credit. These results have cancelled, to some extent, the effects of the 1981 tax act.

The evolving role of social insurance contributions in the tax system is shown in the third column of table 2. The actual ratio followed the plan very closely through 1982, but moved well above the forecast after that. This divergence reflected mainly the 1983 social security amendments that accelerated collections to keep the social security program afloat.

The fourth column of table 2 shows the proportion of excise taxes to total receipts. The 1981 Reagan administration forecast a sharp increase in 1981 and 1982, followed by a steady decline. This general pattern occurred, except that the peak was in 1981 and was at a much lower level than forecast. The discrepancy between what was planned and what actually occurred was mainly the result of much smaller than expected gains from the windfall profits tax; oil price forecasts were erroneous.

Finally, the "all other" category, which is unimportant relative to the total, was underestimated. The major taxes in this category are estate and gift taxes, customs duties and Federal Reserve deposits. The dollar amount of all other receipts was forecast accurately; because the total was overestimated (figures 5 and 6), however, "all other" receipts as a proportion of the total was underestimated.

SUMMARY EVALUATION OF 1981 REAGAN BUDGET PLAN

Table 3 summarizes the 1981 Reagan budget plan and compares its individual components with trends prior to 1981 and what actually occurred after 1981. Rates of change for budget totals

Table 3

Federal Budget Trends and the Reagan Plan (constant fiscal year 1982 prices, annual rates of change)

	1976–80 Trend	1981 Reagan plan 1980–86	1980–88 Trend	Consistent with Reagan plan?[1]
Outlays				
Total	3.5%	1.1%[2]	2.9%	No
Defense	1.7	8.6	5.6	Yes
Nondefense	4.1	−1.8	2.0	No
Payments for individuals	2.7	1.6	2.6	No
All other grants	1.6	−10.7	−5.5	Yes
Net interest	9.6	−5.5	9.1	No
All other	8.7	−9.2	−3.9	Yes
Receipts				
Total	5.8	3.0	2.6	Yes
Individual income	7.6	2.9	1.7	Yes
Corporate income	3.0	−4.8	0.3	No
Social insurance	5.8	5.1	5.0	Yes
Excise	0.8	8.5	0.2	No
All other	2.3	0.2	1.9	No

[1]If 1980–1988 trend is closer to Reagan plan than to 1976–80 trend, yes; otherwise, no.
[2]Including "unallocated savings," the rate of change was 0.3 percent.

and their major components are calculated from the constant dollar measures. A broad judgment is reached on whether actual performance was consistent with the Reagan plan depending on whether the actual 1980–88 trend was closer to the Reagan plan than the prior 1976–80 trend.

The 1980–88 total outlay performance was inconsistent with the 1981 plan. Although the annual growth rate of total real outlays slowed from a 3.5 percent rate to a 2.9 percent rate, this was still substantially above the Reagan estimate of 1.1 percent. Total real receipts, on the other hand, grew at a rate consistent with the 1981 plan; they actually slowed more than planned because of the 1981–82 recession.

An examination of the growth of the components of real outlays shows that some moved in a direction consistent with 1981 plan. Real defense outlays did not rise as much as planned; however, their growth accelerated substantially from the 1976–80 period. Although real nondefense outlays grew much more slowly, the Reagan plan called for a decline. The components of real nondefense outlays showed mixed results. Growth in real payments for individuals and net interest slowed only slightly. The other two categories, however, showed a sharp reversal from the prior four years, although not as much as was planned.

Though real total receipts moved consistently with the Reagan plan, the components of the total showed mixed results. Real individual income taxes rose more slowly than planned, chiefly because economic growth was overestimated, but their growth was down sharply from the 1976–80 trend. Real corporate income taxes slowed, but not to the extent outlined in the 1981 plan. Real social insurance contributions grew at rates very close to what was forecast in 1981. Both the excise and "all other" components of total receipts were estimated incorrectly, but this had little consequence since they are such small proportions of total receipts.

CONCLUSION

In 1981, the newly inaugurated Reagan administration formulated a budget plan designed to slow the growth of government and boost incentives (via taxes) to save, invest and work. Included in the projections was a movement toward a balanced federal budget by 1986. The actual rise in the federal deficit since 1981, culminating with a $221 billion deficit in 1986, suggests that the Reagan budget program failed. Examination of the factors contributing to the deficit as well as the composition of both outlays and receipts, however, indicates broadly why this result occurred and points out that there were a number of successes as well as failures when individual components of the federal budget are considered.

Total receipts in 1986 were overestimated by about $170 billion, mainly because the 1981–82 recession was not anticipated. The major tax proposals were adopted, although not in their exact form nor according to the proposed timetable. Because of differences in timing and subsequent legislation, the actual composition of total receipts varied somewhat from the 1981 projections. The direction of movement, however, was generally as projected for individual income taxes, corporate income taxes and social insurance contributions. The largest error in the projected composition of total receipts was for excise taxes, chiefly because the forecast of oil prices was in error with the result that the windfall profits tax did not produce revenues as expected.

Total outlays were underestimated by about $30 billion in 1986 (or more than $70 billion if the 1981 estimate includes "unallocated savings"). Further examination of outlays revealed a $73 billion error in the projection of net interest. This error was largely offset, however, because the actual defense build-up fell about $69 billion below projections by 1986. The noninterest portion of nondefense spending was underestimated by $15 billion, or 5 percent.

In general, if one looks at budget outlays, the Reagan program enjoyed some success: the decline in the relative role of defense outlays was reversed; payments for individuals relative to total outlays continued roughly as planned; all other grants and the residual category of "all other outlays" continued to decline from their peaks in the late 1970s or 1980. The major exception to the 1981 plan was the rise in net interest outlays produced by failures to forecast the 1981–82 recession (which slowed the growth of receipts), the level of interest rates, and the cumulative effect on outlays of compounding interest on a growing national debt.[19]

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[19]See appendix A and Carlson (1984).

Appendix A
The Impact of Economic Assumptions on the 1981 Reagan Budget Plan

An alternative method of evaluating the 1981 budget plan is to simulate the effect on the budget of economic conditions different from those assumed in planning the budget. An updated version of a budget model previously presented in this *Review* was used to do this.[1] The model consists of three parts: an estimate of the impact of inflation and real growth on both (1) primary receipts and (2) primary outlays, and (3) an estimated equation for net interest outlays. The latter reflects the indirect effects of inflation and real growth on receipts and outlays as well as the effect of interest rate changes.

First, the 1981 Reagan budget plan was separated into primary receipts, primary outlays and net interest (see table A1). The effects of actual inflation, real growth and interest rates then were calculated, yielding simulated values of primary receipts and outlays and interest cost for the 1981–86 period. These simulation results are shown in table A2.

Table A1
The 1981 Reagan Budget Plan (billions of dollars)

Year	Primary receipts	Primary outlays	Primary surplus/deficit	Federal Reserve deposits	Total receipts	Net interest	Total outlays	Surplus/deficit
1980	$508.3	$541.4	$ −33.1	$11.8	$520.1	$52.5	$593.9	$ −73.8
1981	587.7	614.7	−27.0	12.6	600.3	64.1	678.8	−78.5
1982	637.0	643.8	−6.8	13.3	650.3	68.2	712.0	−61.7
1983	694.0	703.5	−9.5	15.1	709.1	68.9	772.4	−63.3
1984	752.2	756.1	−3.9	18.5	770.7	67.8	823.9	−53.2
1985	831.2	830.2	1.0	18.7	849.9	64.9	895.1	−45.2
1986	921.3	898.4	22.9	18.9	940.2	62.8	961.2	−21.0

Table A2
The 1981 Reagan Budget Plan: Simulated[1] (billions of dollars)

Year	Primary receipts	Primary outlays	Primary surplus/deficit	Federal Reserve deposits[2]	Total receipts	Net interest	Total outlays	Surplus/deficit
1980	$508.3	$541.4	$ −33.1	$11.8	$520.1	$ 52.5	$593.9	$ −73.8
1981	591.2	613.4	−22.2	12.8	604.0	70.9	684.3	−80.3
1982	616.0	650.2	−34.2	15.2	631.2	86.5	736.7	−105.5
1983	611.1	711.3	−100.2	14.5	625.6	97.0	808.3	−182.7
1984	638.6	747.6	−109.0	15.7	654.3	111.3	858.9	−204.6
1985	689.0	810.4	−121.4	17.1	706.1	124.3	934.7	−228.6
1986	725.5	864.7	−139.2	18.4	743.9	134.5	999.2	−255.3

[1]Using actual values of economic variables (real growth, inflation and interest rates)
[2]Actual

[1]See Carlson (1984), appendix B, for a summary of the model. The only difference from that model is that the interest cost equation was reestimated with data through 1986. For an extended discussion of the role of economic assumptions in budget estimates, see Carlson (1983).

Table A3
Actual Budget Results (billions of dollars)

Year	Primary receipts	Primary outlays	Primary surplus/deficit	Federal Reserve deposits	Total receipts	Net interest	Total outlays	Surplus/ deficit
1980	$505.3	$538.4	$ −33.1	$11.8	$517.1	$ 52.5	$ 590.9	$ −73.8
1981	586.5	609.5	−23.0	12.8	599.3	68.7	678.2	−78.9
1982	602.6	660.7	−58.1	15.2	617.8	85.0	745.7	−127.9
1983	586.1	718.5	−132.4	14.5	600.6	89.8	808.3	−207.8
1984	650.8	740.7	−89.9	15.7	666.5	111.1	851.8	−185.3
1985	717.0	816.9	−99.9	17.1	734.1	129.4	946.3	−212.3
1986	750.7	854.3	−103.6	18.4	769.1	136.0	990.3	−221.2
1987	837.3	865.2	−27.9	16.8	854.1	138.6	1003.8	−149.7

The results indicate that had the 1981 budget plan been fully implemented, it would have yielded a deficit of about $255 billion in 1986. These results are based on the actual course of inflation, real growth and interest rates from 1981 to 1986. Since the actual 1986 deficit was $221 billion (see table A3), apparently the 1981 program was not implemented as planned. Specifically, from 1981 to 1986, neither total receipts nor primary outlays increased to the extent originally planned; total outlays increased more than planned because of large errors in estimating net interest. Thus, the actual behavior of key economic variables "overexplains" the deficit. That is, if primary receipts and outlays had performed according to the 1981 plan, the 1986 deficit would have been much larger than it turned out to be.

Appendix B
Composition of Federal Outlays

Federal outlays can be classified in terms of two analytical structures: budget function and major program category. The functional classification presents outlays according to the purpose that a federal program is intended to serve. These functions include, for example, national defense, international affairs, energy programs, transportation, health, income security, etc. Two additional categories — net interest and undistributed offsetting receipts — do not address specific functions, but are included to cover the entire budget.

The classification of federal outlays by major program category focuses on the method of carrying out an activity. The major program categories are national defense, benefit payments for individuals, grants to state and local governments (other than for benefit payments), net interest and all other outlays. National defense and net interest correspond to the functional categories of the same name, but the remaining major program categories do not correspond to a simple summing of functional categories. Nonetheless, approximations can be made. The accompanying table groups 1988 outlays by function to provide added information about the major program categories discussed in the text.

Table B1

1988 Federal Outlays (billions of dollars)

Category	Amount
Total	$1,064.0
National defense	290.4
Benefit payments for individuals[1]	501.4
Health and medicare	123.4
Social security	219.3
Income security	129.3
Veterans benefits and services	29.4
Other grants to state and local governments[1]	50.0
Natural resources and environment	3.7
Agriculture	2.1
Transportation	18.1
Community and regional development	4.3
Education, training, employment and social services	19.9
General government	1.9
Net interest	151.7
All other[1]	70.4
International affairs	10.5
General science, space and technology	10.8
Energy	2.3
Natural resources and environment	10.9
Agriculture	15.1
Commerce and housing credit	18.8
Transportation	9.2
Community and regional development	1.0
Education, training, employment and social services	12.0
Administration of justice	9.2
General government	7.6
Undistributed offsetting receipts	-37.0

[1]Amounts shown are the sums for the functions listed under them and differ slightly from the categories discussed in the text.