SOME HISTORICAL ASPECTS OF FEDERAL FISCAL POLICY, 1790–1956

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Traditional views of fiscal policy tended to treat Government expenditures as the means to the performance of Government functions, and to regard revenue measures as a means to both. Modern income analysis, by contrast, has tended to stress the money-flow aspects of aggregate Government financial transactions in relation to national levels of spending, output, and prices. This paper will deal with both aspects. It will describe and analyze briefly the historical development of Federal expenditures by function and of the attending revenue structure. The relations between fiscal policy and wartime inflations will be investigated, also the reciprocal interaction of fiscal policy with peacetime economic fluctuations. The fiscal ideas underlying such policies will also be treated. The possible effects of the tax structure and public debt policy on economic growth will receive some attention. Discussion of some of the conceptual problems and statistical sources encountered in a historical treatment of this sort will conclude the paper.

The Growth of Federal Expenditures, 1790–1956

During the first full year of its existence, the Federal Government spent less than $1 million. In fiscal 1956, Federal cash payments to the public totaled more than $70 billion. Current levels of Federal spending are about 10,000 times as large as those of the 1790's and about 200 times as large as those of the 1890's.

The pattern of this vast growth over time is shown in the accompanying chart. A cursory examination will reveal its most striking feature to be the influence of wars on the pattern of increase. The large eruptions reflect the War of 1812, the Civil War, and World Wars I and II. Instead of a gradual, even, upward movement, Federal expenditures have shown a series of plateaus. Wars have pushed expenditures to high levels. With the return of peace, spending has fallen, but never to prewar levels. Usually the war has left a heritage of increased expenditures for interest and veterans. Between wars, expenditures show several long periods of relative stability or even decline, until the next war forced them to still higher levels. Such

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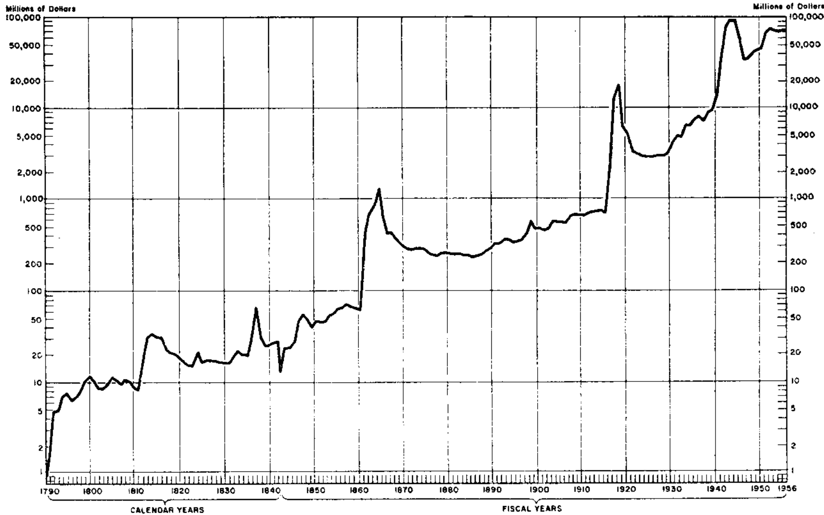
FEDERAL EXPENDITURES, 1790-1956



Sources: 1790–1860, author's estimates; 1861–1916, author's preliminary estimates: pp. 81–83; 1917–52, Kendrick, a century and a half of Federal expenditures, National Bureau of Economic Research, 1955, p. 77; 1953–56, annual budget volumes for 1955–58.

periods have been lacking in recent years. Since 1900 there has been a stronger upward tendency in "normal" Federal expenditures, and since 1945 the earlier distinction between wartime and peacetime periods has largely evaporated.

Table I summarizes the growth of expenditures in absolute terms and also gives some information on the composition of expenditures and their relation to other economic magnitudes. It shows that expenditures for defense and for interest, veterans' benefits, and other war-related items have usually dominated Federal spending. In only one of the selected periods, that of the 1930's, do the other items account for more than half. This does not obliterate the fact that these civil expenditures in each period were larger than in the previous one. In 1956, this civil category accounted for nearly $20 billion of Federal spending.

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TABLE I.—*The growth of Federal expenditures and their relation to other economic magnitudes, 1790–1956*

Period	Number of years	Average annual expenditures			Average per capita 1926 prices	Average ratio to gross national product
		War-related	Other	Total		
	Millions of dollars					
						Percent
1790–1811	22	6.0	2.0	8.0	1.60	1–2
1812–15	4	26.7	2.8	29.5	3.25	3–5
1816–36	21	13.7	6.1	19.8	2.45	1–2
1837–61	24½	27.3	18.4	45.7	2.95	1–2
1862–65	4	708.0	19.0	727.0	24.40	10–14
1866–90	25	227.0	66.0	293.0	7.60	3–4
1891–1916	26	357.0	171.0	528.0	10.0	2–3
	Billions of dollars					
						Percent
1917–19	3	10.6	0.4	11.0	82.0	17–18
1920–29	10	2.8	.7	3.5	28.0	4
1930–41	12	2.9	4.2	7.1	71.0	10
1942–45	4	70.0	6.0	76.0	461.0	40
1946–56	11	45.0	12.0	57.0	225.0	18

NOTES.—Figures are for calendar years through 1842, 6 months of 1843, thereafter fiscal years ending June 30.

War-related expenditures include military, veterans, foreign, and interest.

Averages relative to population are means of annual estimates, as are those for gross national product since 1861. For earlier years, relation to gross national product indicates probable range.

Sources: 1790–1916 based on author's annual estimates, discussed at end. 1917–52, M. Slade Kendrick, A Century and a Half of Federal Expenditures, National Bureau of Economic Research, 1955; 1953–56, Budget of the United States, annual volumes for 1955–58.

We can better obtain perspective on the magnitudes and growth of Federal outlays by comparing them with some measures of the size of the economic system. We should also allow for the fact that the value of the dollar has not remained constant. Since 1790, the population of the United States has increased from about 4 million to about 170 million—more than fortyfold. The purchasing power of the dollar, as measured by wholesale prices, has fallen to about one-third of its 1790 value—although such long-run comparisons are virtually meaningless because of changes in the composition of output. In our table, figures showing Federal expenditures per capita, in 1926 prices, take account of the changes just noted. These show that the increase in spending was not great relative to price and population change in the peacetime periods through 1929.

The type of comparison most dear to the economist is that between Government expenditures and some measure of national income or output. Precisely what such comparisons show and how they should be made are questions we will sidestep. We will merely take gross national product as a measure of the size of the Nation's economy. Gross national product (GNP) has grown more rapidly than population as a result of increased productivity stemming from improved organization, technological advance, and an increasing stock of capital goods. Output per capita in the United States has risen to more than 10 times what it was in the first part of the 19th century. Table I contains a column of data relating Federal spending to GNP in each period. This comparison reduces the growth of Federal spending to

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somewhat more modest proportions. If we concentrate on peacetime periods, we find an increase in the ratio from something under 2 percent before 1812 to something under 20 percent in most recent times.

These statistical relationships do not go very far to explain why the increases in spending have occurred. Some economists have suggested that there is a kind of law of increasing Government activity—that as the living standard of an economy rises, public opinion will bring about a larger relative amount of Government activity. Most Government services are not vital for subsistence, but higher living standards bring more desire for Government services, while increasing people's willingness and ability to pay for them. To use a modern idiom, Government activities may be purchased out of supernumerary income—income above that needed for necessities, which rises faster than total income.

This explanation, usually advanced to account for increases in desirable Government activities, may paradoxically help explain the relative increase in war expenditures. In part the increasing costs of American wars reflect the higher emotional involvement of the population in total war. Another contributing factor, as Professor Kendrick has pointed out, has been changes in military technology.[1] But part of the explanation is that a wealthy, highly productive nation can devote a larger proportion of its resources to military purposes without infringing on the necessities of life. The high proportion of our output devoted to military uses during World War II was more readily achieved because the economy had been in a period of depression, which kept people's accustomed standard of necessity fairly low, and also permitted a great increase in total output.

But to deal adequately with the peacetime growth of Federal expenditures, whether war-related or not, one must be more specific about public attitudes toward Government actions, the political structure, and the revenue base.

Federal expenditure policies in the 19th century

Our figures show that the growth of Federal expenditures in peacetime periods was relatively slow in the 19th century—indeed, down through the 1920's—relative to the growth of the economy. Government spending seemed to approximate a normal level of somewhat under 5 percent of GNP. The activities on which the Government spent most of its money showed a remarkable degree of stability throughout the 19th century. In the years 1789 through 1860, about five-sixths of Federal expenditures went for defense, general government, Indian affairs, veterans' pensions, interest, and postal service deficits. In 1890 these activities accounted for virtually the identical percentage, although the relative shares were different. In 1789–1860, about 5 percent of Federal spending went for aids to commerce and transportation, chiefly lighthouses and river and harbor improvements. In 1890 this percentage was also practically identical. Only about 10 percent of total spending in each case fell outside these activities, and some of that reflected such common items as surveying and selling the public lands, and District of Columbia expenditures.

[1] M. Slade Kendrick, A Century and a Half of Federal Expenditures, National Bureau of Economic Research, New York, 1955, pp. 42–48, 57–62.

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By 1910, the share of the first group of activities had fallen below 80 percent. In the category of transportation facilities, expenditures on rivers and harbors were exceeded by those on the Panama Canal, pushing the total for the category above 10 percent. Conservation-oriented activities in the Interior Department, agricultural expenditures (which had been minute in 1890), and the outlays of the newly formed Department of Commerce and Labor accounted for another 7 percent. Since 1910, the increase in the dollar volume of Federal expenditures has been accompanied by the proliferation of Federal activities. We might say that in the 19th century expenditure growth increased the scale of Federal activities, but that during the 20th century, their scope has increased also.

We may be able to throw light on the reasons for these divergent patterns by adopting an unconventional approach. Instead of asking why expenditures grew, let us ask why they did not grow more in both scale and scope before, say, World War I. We can dismiss at the outset one possible explanation—that there was no pressure from the public for Government services and actions. Recent research in economic history has produced a mass of evidence that demands for Government action were widespread and strong throughout the 19th century, particularly from businessmen.[2] There are a number of specific factors which account for their slight effect on Federal spending:

1. The Federal system. The greater part of the demand for Government action involved State and often local governments. State aid, participation, and regulation were very evident in the development of roads, canals, railroads, and banks before 1860.

2. The separation of powers in the Federal Government. Members of Congress have typically been most sensitive to demands for services from particular constituent groups. The President and other executive officials are, however, more at liberty to pattern their conduct after a general theory of government. In the 19th century most Presidents, strong or weak, held pronounced views about the proper rôle of the Federal Government relative to the States and to the private economy. In particular, they shared a general sense of the limitations imposed by the Constitution on Federal activities. Not only was Presidential leadership lacking on behalf of spending increases, but strong Presidential pressure was often exerted to keep Federal activity limited. The history of this can be read in part in the sequence of Presidential vetoes, from Madison's veto of the bonus bill of 1817 through Coolidge's veto of the McNary-Haugen bills in the 1920's.[3] We will also find evidence of it in the attitude of officials toward fiscal policy during economic depressions. One might note that the strong pressures against spending came from the Executive more than from the judiciary. No Federal spending program of consequence fell afoul of the courts until the 1930's.

[2] This literature is excellently summarized in Robert A. Lively, The American System: A Review Article, Business History Review, March 1955.

[3] Other notable items in the series should be Monroe's veto of a bill to charge tolls on the Cumberland road, Jackson's veto of bills to buy stock in the Maysville turnpike and Louisville and Portland Canal corporations, Polk's and Arthur's vetoes of river and harbor bills, Johnson's veto of the Freedmen's Bureau bill, and Cleveland's vetoes of pension, river and harbor, and drought-relief bills. Others which involved the scope of Federal activity were those of Jackson and Tyler on bills to charter a national bank, and those of Pierce and Buchanan on bills to distribute public lands for certain welfare purposes.

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3. The Federal Government was able to meet demands on it by actions which involved little or no expenditure of money or which even brought revenue. Major programs which involved little expenditure would include the national banking and Federal Reserve systems, antitrust and the Federal Trade Commission, and the regulation of railways and other industries. In the 19th century, the Government also was able to take substantial actions with its great nonmonetary asset, the public lands. In part, the low level of veterans' pension payments prior to the Civil War reflected the use of land bounties to servicemen. Federal land grants for aid to railways and education were vastly more important than the cash expenditures for such purposes. And of course in the case of the tariff, the Government was able to meet demands for assistance to business in a manner which brought revenue. These factors indicate that a study of expenditure patterns alone is seriously inadequate for an understanding of the general economic role of the Federal Government before 1900.

4. Federal expenditures were inhibited at times by the nature of the tax structure and the abhorrence of debt. Prior to the Civil War, the tariff was the chief source of Federal revenue, but its revenue aspect was never the sole consideration. During the years 1833–60, the political power of southern interests made it impossible to increase rates (except in the face of large depression deficits in 1842), and in fact created a strong pressure to reduce them as imports grew. Abhorrence of debt manifested itself in a strong priority for debt retirement in times when revenues were abundant (1825–36, 1850–56), and in determination to reduce expenditures in times of depression and low revenue.

5. Although there emerged in the latter part of the 19th century two large "underprivileged" groups, the farmers and the industrial working class, the farmers tended to concentrate their attention on such Government actions as monetary reform, lower tariffs, and antitrust. The working class was in large measure politically impotent, because of the high proportion of immigrants, but even the sector of labor with the highest political potential preferred to seek gains through craft organization and collective bargaining rather than through Government action.

The increases in Federal expenditures prior to 1900 took place in well-established channels and at times when the limitations noted were relatively weak. One major influence toward growth was the territorial expansion of the United States under the stimulus of population increase. A large part of defense expenditure went for frontier protection against Indians, and was greatly in demand especially after the territorial increases of the 1840's. Expenditures for Indian affairs, postal service, and transportation facilities were all linked to territorial expansion.

The successive periods of war also tended, to some extent, to create the revenue necessary for higher subsequent expenditures such as veterans' benefits. The high tariff rates and belated internal duties of the War of 1812 brought a flood of revenue after the war, and the tariff was never restored to its prewar level, although the internal duties were soon repealed.[4] The Civil War created a revenue base

[4] Paradoxically, the large relative increase in pension expenditures after 1816 went almost entirely to Revolutionary veterans and their survivors. Army veterans of 1812 received no pensions until after the Civil War, nor did those of the Mexican War.

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of excise taxes on tobacco and alcoholic beverages which were not removed after the war, and which had a sumptuary aspect which made reduction unpopular in some quarters. Pension increases after 1865 were also attractive to Republican politicians because of their geographic distribution. But the big increase in pension payments came some 25 years after the Civil War, when the tariff was bringing in high revenues at a time when the political pressures for protection were too high to permit rate reductions.

Federal expenditure policies in the 20th century

The large increase in Federal expenditures relative to GNP has taken place in the 20th century, particularly the years since 1930. This has been a growth in both the scale and scope of Federal action, with an enormous proliferation in the number of Federal activities and the assumption of responsibilities previously left either to States and localities or regarded as private concerns.[5]

This change can be explained to a large degree in terms of modification in the forces formerly limiting expansion. The economy has become a national unit, which State and local governments have been less able to cope with. The Federal Government has tapped phenomenal new revenue sources which have completely eclipsed the relatively cumbersome resources of States and localities and have increased Federal spending capacity. In addition, during the 1920's and 1930's, these new taxes on personal and corporate incomes were largely imposed on a wealthy minority, so that they did not have the political unpopularity which has increasingly attached to the personal tax in its more recent role as a mass levy. By the 1920's farmers had become a more effective political power and were demanding positive Federal action rather than regulation of alleged "exploiters." The curbing of immigration in the 1920's helped pave the way for the more effective integration of the working class into the political structure. The process of Federal expansion was given considerable impetus by positive Presidential leadership from Theodore Roosevelt and Woodrow Wilson.

But the structural and psychological changes just listed took on effective significance as forces promoting Federal expansion chiefly under the influence of the economic depression of the 1930's. Although President Hoover's ideological commitment to a limited role of Federal action was flexible enough to accept the Farm Board and Reconstruction Finance Corporation, he balked at Federal assumption from the States and localities of responsibility for direct relief. But the debility of State and local revenue and credit resources led them to default on this and other responsibilities. Federal expansion into this and other areas found a politically effective champion in Franklin Roosevelt. Hoover's defeat in the midst of economic chaos represented a thorough discrediting of the traditional ideology of rigidly limited Federal activity, although some of the worst parts of that ideology were the last to be discarded.

[5] A good idea of this proliferation is conveyed by Solomon Fabricant, The Trend of Government Activity in the United States Since 1900, National Bureau of Economic Research, New York, 1952, pp. 61–72, 242–247. See also Paul Studenski and Herman Krooss, Financial History of the United States, McGraw-Hill, New York, 1952, pp. 263–270.

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The largest portion of depression-inspired expenditures under the New Deal went into such straightforward and necessary objectives as relief (chiefly FERA and WPA) and public works.[6] If anything, these were too small relative to the task. In any case, they were temporary and went out of existence during the war.

However, the depression was also the occasion for the inception of programs of farm-price supports and other subsidies, and for the social-security program. Both of these were originally very badly designed as part of fiscal policy to relieve depression, but have become, paradoxically, important parts of the Government's standby protection against any subsequent depression.

Many of the most controversial expansions of Federal functions in the 1930's did not entail great expenditure increases. Monetary and banking reconstruction, the National Labor Relations Act, the wage-hour law, the NRA and its unwholesome progeny—none of these required great financial expense, but each extended Federal influence drastically. It is very doubtful if any of them made any appreciable contribution to recovery, just as it is unlikely that any of them could have been adopted without the depression as background.

The high level of expenditures in the past decade reflects the assumption by the Federal Government of a degree of responsibility for maintaining world peace and order far greater than before 1940. Paralleling this has been the continued responsibility assumed during the 1930's to maintain and increase domestic living standards. The bulk of Federal spending continues to reflect military outlays. But our expenditure classification should not cause us to overlook the great contribution made toward the "welfare state" by the postwar veterans' program.

With these responsibilities, there has developed no philosophy of the proper role of the Federal Government relative to the States or to private activity as rigorous or widely accepted as the old. This is as true in judicial constitutional interpretation as elsewhere. In many respects, the traditional view was obsolete, particularly in its dedication to an automatic monetary mechanism and its rejection of depression deficit spending. But the lack of some such standard raises the danger that Federal spending programs will deteriorate into mere acts of vote buying. There is also the danger that the Government will exercise its responsibilities toward individual's living standards in such a manner as to create a "rich man's welfare state," in the phrase of Blair Bolles. Many Government programs have created vested interests who were not intended as the beneficiaries but whose welfare is heavily dependent on the program—the construction and farm-implement industries, for example. At the same time, as the investigations of the Joint Economic Committee have brought out, the programs of the welfare state may be of little benefit to the really depressed members of the economy whose needs are most urgent.

The great increases in Federal spending have reflected in part a growing role for Government in general relative to private activity in the economy, and in part a shift in the magnitude of Federal activity relative to other Government units. These changes are described and analyzed in detail by Fabricant. We shall do no more than set forth some of his data which measure them.

[6] See Kendrick, op. cit., pp. 31–36.

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TABLE II.—*Some measures of the changing role of governments since 1900*

	Expenditures (billions)		Purchases (billions)		Employment (thousands)	
	1903	1949	1903	1955	1900	1949
Federal	$0.6	$36.2	$0.2	$46.7	312	3,608
State and local	1.1	23.6	.6	30.1	852	3,478
Total	1.7	59.8	.8	76.8	1,164	7,086
Ratio of total of total government to total United States (percent)			4	20	4	12

Sources: Solomon Fabricant, The Trend of Government Activity in the United States Since 1900, National Bureau of Economic Research, 1952; 1955 figures from Economic Report of the President, 1957. For a similar attempt at measurement, see R. A. Musgrave and J. M. Culbertson, The Growth of Public Expenditures in the United States, 1890–1948, National Tax Journal, June 1953.

EVOLUTION OF THE FEDERAL REVENUE STRUCTURE, 1790–1956

Table III presents the general magnitudes and composition of Federal revenues for the same time periods used for expenditures. Since revenue growth has roughly paralleled that of expenditures, we will not devote separate attention to comparisons of tax levels with output, population, or prices. Our concern will be with some of the influences on revenue development, and its implications.

TABLE III.—*The Federal revenue Structure, 1790–1956*

Period	Number of years	Average annual tax revenue				Land sales	Other	Total
		Customs	Income and profits	Other	Total			
	Millions of dollars							
1790 to 1811	22	9.3	(1)	[2] 0.4	9.7	0.3	0.1	10.1
1812 to 1815	4	9.5	(3)	[4] 2.9	12.4	1.1	.4	13.9
1816 to 1836	21	22.8	(3)	[4] .8	23.6	4.1	.2	27.9
1837 to 1861	24½	35.8			35.8	3.5	1.4	40.6
1862 to 1865	4	121.0	[5] 22	71.0	213.0	1.0	9.0	223.0
1866 to 1890	25	200.0	[5] 12	136.0	348.0	6.0	4.0	358.0
1891 to 1916	26	235.0	[6] 15	245.0	495.0	7.0	15.0	517.0
	Billions of dollars							
1917 to 1919	3	0.2	1.9	0.9	3.0	(7)	0.2	3.2
1920 to 1929	10	.5	2.3	1.0	3.8	(7)	.5	4.3
1930 to 1941	12	.3	[8] 2.7	1.2	4.2	(7)	.6	4.8
1942 to 1945	4	(7)	[8] 29.0	5.0	34.0	(7)	1.0	35.0
1946 to 1956	11	1.0	[8] 46.0	9.0	55.0	(7)	2.0	57.0

[1] Tax on bank dividends, 1796–1802—no separate data.
[2] Levied 1791–1802 only.
[3] Tax on bank dividends yielded about $0.1 million annually, 1815–18.
[4] Levied 1814–17 only.
[5] Levied 1863–72 only.
[6] Beginning 1910.
[7] Less than significant minimum at this level of rounding.
[8] Includes social-security taxes for old-age and unemployment insurance.

NOTES.—Totals are net of refunds, but customs and land sales include certain related fees.
Sources: See end of paper.

Choice of Federal revenue sources, within the limits imposed by the Constitution, has always represented a compromise between the political problem of distributing the burden, the administrative problem of collection, and the economic problem of the size and stability

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of the revenue source. In the early 19th century the tariff met these needs to a higher degree than other feasible taxes, and served as the main, or, in many years, the only source of tax revenue. Hamilton's excise program was widely disliked. Objection to the whisky excise (even then the chief revenue producer) came from the large number of small western farmers who relied on the still to furnish a readily marketable cash crop. Thomas Jefferson regarded it as a major achievement of his presidency that all the internal taxes were terminated and exclusive reliance placed on the tariff. This was preferred because of its relative invisibility to consumers, because some protectionist sentiment already existed, and because it was levied at one of the few points in the economy where transactions in money predominated.

Extensive reliance on the tariff had several important implications. First, because of the waxing and waning of effective protectionist sentiment, tariff rates were likely to be determined partly for reasons unrelated to revenues and expenditures. Second, the money-flow effects of tariff changes were ambiguous. Higher rates would tend to lower money incomes by diverting more money to the Government (assuming expenditures unchanged), but this might be offset by a shift in private expenditures from imported to home products. Third, the tariff proved a poor revenue source during wars, which usually interfered with trade. Fourth, revenues from the tariff (and from its chief supplement before 1860, sales of public lands) were very sensitive to economic fluctuations. In periods of recession, imports usually fell sharply, cutting revenues, and resulting in deficits since expenditures were reduced only gradually. This gave the Federal fiscal system a degree of "built-in flexibility."

During the Civil War, a comprehensive program of excise and related taxes was reinstituted. Many of these were repealed at the end of the war, but taxes on tobacco products and alcoholic beverages were retained, and furnished a large share of Federal revenues down through World War I. The liquor producers were no longer numerous enough nor able to muster sufficient sympathy to escape taxation. The Civil War also brought the first Federal income tax, but this was repealed in 1872.

Tariff controversy over protectionism continued in the post-1865 period, with the protectionists generally having more success than in prewar years. They suffered an embarrassment of riches in the 1880's, when revenues rose rapidly at a time when it was difficult to retire much of the Federal debt. The solution, as noted above, was chiefly a great increase in pension spending.

The revenue pattern of the post-Civil War period, with its heavy reliance on indirect taxation, probably produced a regressive incidence of burden. However, it was generally favorable to saving and investment while bearing relatively hard on consumption. The excise taxes demonstrated more stability of yield in economic fluctuations, and thus reduced the degree of automatic flexibility.

The progressive era and World War I worked a revolution in Federal revenues. A constitutional amendment opened the way for a personal income-tax law in 1913, while a tax on corporation profits was imposed in 1910. The war emergency brought drastic increases in rates, and the income and profits taxes leaped into the dominant position which they have held ever since. During the war, the

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personal tax approached the character of a mass tax, but the subsequent exemptions restored it to the status of a tax on the wealthy minority, which it remained, with modifications, until World War II.

During the depression, tax rates were drastically increased, in direct contravention of modern fiscal thinking. The increases offset in considerable measure the beneficial effects of increased expenditures. The principal innovation of permanent significance came in the social-security program, which imposed wage and payroll taxes. By 1956 these taxes (including State payments into the Federal Treasury) accounted for more than 10 percent of Federal revenue.

Revenues from personal and corporate income taxes have continued to dominate the Federal revenue structure during the past decade. In recent years, the personal tax has alone furnished about two-fifths, and the corporate tax about one-fourth, of Federal revenue. Excise taxes have yielded about one-sixth. Public policy toward the tariff and the public lands has lost any relation to Government revenues.

A number of circumstances influenced the rapid shift from indirect to direct taxation. Necessary prerequisites were the rise of the corporation as the dominant form of business organization, the shift in the labor force toward occupations paying money incomes for services, and a relatively high degree of efficiency in administration and of voluntary compliance by the public. Probably current levels of personal tax collection would be difficult without withholding at the source. There have also been changes in effective public opinion on the subject of proper tax burdens, but these are not as easy to trace as the development of actual tax policy might suggest.[7] Probably more important has been the changing political potency of high- versus low-income groups.

At present the Federal tax burden is much more progressive with respect to income than it was in the latter part of the 19th century. This probably also means that it falls more heavily on sources of funds for saving and investment (not assumed to be identical), whatever the effects on incentives. The present system also possesses a relatively high degree of automatic flexibility in response to economic fluctuations. This flexibility is more significant than that of the 19th century because of the larger absolute level of tax revenues.[8]

The Pattern of Fiscal Policy as a Whole

Modern income analysis has thrown much more attention on the relation between the total money flow into and out of the Government and the level of national money income. Analysis of fiscal policy has given particular emphasis to two situations: wars and depressions. In wartime, Government fiscal policy may be excessively inflationary, whereas in depressed times an upward influence on incomes and spend-

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[7] There was considerable sentiment favoring progressive rate structure in the early 19th century, and the Federal direct tax of 1798 imposed a progressive rate on real property.

[8] Recent attempts to measure the flexibility of the revenue system indicate that the decrease in Federal cash receipts would range between 20 and 35 percent of any decline in gross national product. The effect on private spending for consumption and investment would probably be less, especially where the corporate tax is involved. See Everett E. Hagen, Federal Taxation and Economic Stabilization, Federal Tax Policy for Economic Growth and Stability: Papers Submitted by Panelists, Joint Committee on the Economic Report, Washington, 1955, pp. 58–60; papers and comments by David W. Lusher, Samuel M. Cohn, Gerhard Colm, A. G. Hart, Joseph A. Pechman, Richard Goode, Ida C. Merriam, and Karl A. Fox in Policies To Combat Depression, National Bureau of Economic Research, New York, 1956.

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ing is desired. We will examine each of these aspects of fiscal policy historically.

Fiscal policy in wartime—Deficits and inflation

During the period under study, the Federal Government engaged in four major wars. In table IV are summarized some of the important aspects of aggregate fiscal policy in these periods. The data indicate that substantial deficits have been the rule, although revenues as well as expenditures have usually been higher than before the war. In no case did the Government succeed in covering as much as half of its expenditures by current revenues. Further, each of the four wars was a period of substantial price inflation. The figures suggest some improvement in recent times, but the price figure for World War II probably overstates the value of the dollar (because of quality deterioration, shortages, etc.) and does not take account of continuing price increases after 1945.

TABLE IV.—*Federal fiscal policies and wartime inflation*

Period	Average revenues	Expenditures			Share of gross national product taken by United States	Increase in prices over last prewar year	
		Average	Ratio to average of prewar 5 years	Ratio to gross national product		Wholesale prices	Consumer prices
1812 to 1815	$14,000,000	$30,000,000	300	3–5	2–4	50	------------
1862 to 1865	223,000,000	727,000,000	1,100	10–14	9–11	100	75
1917 to 1919	3,200,000,000	11,000,000,000	1,570	17–18	14–16	60	60
1942 to 1945	35,000,000,000	76,000,000,000	800	40	38	35	30

NOTE.—Calendar years 1812–15; fiscal years ending June 30 thereafter.
Price data are those of Bureau of Labor Statistics, including unpublished consumer price data for Civil War. Calculation is based on annual averages for calendar year and results are rounded. Published data are from Historical Statistics of the United States and Federal Reserve Bulletin.

The four wartime periods have differed considerably in the proportion of expenditures covered by revenues, and in the general magnitude of Federal operations. The Federal Government's absorption of resources during the War of 1812 was less than 5 percent of the Nation's output, whereas World War II required about 40 percent.[9] The Civil War appears to have involved a smaller share than World War I, but this result is questionable, since our figure compares Federal (northern) purchases with total national output. As a percentage of northern output alone, Federal purchases would probably have amounted to about 15 percent.

Although abhorrence of debt was a fairly constant factor in peacetime fiscal policy, Government officials were relatively tolerant in their attitude toward wartime deficits.[10] There was no recognition of the

[9] The inflation during the War of 1812 was completely out of proportion to the expansionary force of Government deficit spending. In part, it reflected additional credit creation by the banks, but chiefly it resulted from the drastic dislocation of international and interregional trade by both American and British policies. Prices of imported products rose far more than those produced at home.

[10] Albert Gallatin's maxims undoubtedly helped strengthen a tendency in fiscal policy which would have existed anyway. In 1807 he argued that "the losses and deprivations caused by * * * war should not be aggravated by taxes beyond what is strictly necessary." Loans should be the chief source of funds, with increases in taxation only sufficient to cover "the annual expenses on a peace establishment, the interest on the existing debt, and the interest on the loans which may be raised" (American State Papers: Finance, II, 248). Half a century later Secretary Salmon P. Chase advocated the same program for Civil War finance.

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function of taxes to curb excessive private spending. The chief argument for them was that they would improve the Government's credit standing by assuring a secure basis for interest payments and debt redemption.[11]

While 19th century officials ignored the inflationary consequences of deficits per se, they were not indifferent as to the manner in which the deficits were financed. Efforts were usually made to cover them through loans, but these were never sufficient. During the War of 1812 the Treasury issued interest-bearing Treasury notes which were designed to circulate as a close substitute for currency. During the Civil War, the Government created the first Federal paper currency to become a permanent part of the Nation's monetary system. Half a million dollars of paper currency was issued, which directly covered about one-fifth of the total deficit, and also made it easier to finance the rest by borrowing back some of the currency. But in addition to these actual issues of currency or near-currency, the war loans drew heavily on expanded bank credit in notes and deposits, which also increased the money supply. Although official understanding of the inflationary nature of monetary expansion was not lacking, there was a strong tendency to concentrate on the maintenance or resumption of convertibility into specie, assuming that prices and other economic factors would automatically achieve satisfactory levels.

The crude device of direct currency issues on a large scale has been rendered obsolete by the establishment of the Federal Reserve System. During World War I, sale of Federal securities was facilitated by the expansion of Federal Reserve credit in rediscounts and loans to banks. Individuals and business firms were encouraged to borrow from banks in order to buy war bonds, and banks themselves purchased substantial amounts. During World War II, the Federal Reserve itself purchased large amounts of securities in the open market, enabling the banks to purchase a still larger quantity with the resulting reserves.

In every war, except that of 1812, the Government made substantial efforts to achieve wide distribution of ownership of war securities among individuals. In general, however, wartime borrowing has been chiefly a disguise for money creation. It is not obvious that the issue of interest-bearing securities which do not serve to divert funds out of private spending is really the most rational technique of war finance.

One of the first fruits of national income analysis was the better recognition during World War II of the merits of high taxes in curbing inflationary pressures, as well as of the dangers which inflation might entail. This improved attitude toward taxation was also very much in evidence during the Korean emergency.

Wartime fiscal policies provide most of the direct historical evidence available about the potential effects of Federal deficits in raising national money incomes. Interpreting the evidence is complicated, however, by the association of deficits with money creation. One cannot disprove the arguments of convinced adherents of the quantity theory of money that it is the latter which really provides the expansionary push.

[11] See Henry C. Adams, Public Debts, 1888, p. 119.

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Fiscal policy and economic fluctuations

The history of the American economy from 1790 to 1945 is a history of considerable instability in production, employment, prices, and incomes. Even in the agrarian days before 1860, wide fluctuations in farm prices on international markets, combined with the inevitable burden of farm debt, created widespread periodic farm distress to be added to the unemployment in the less developed construction and manufacturing sectors of the economy. Nineteenth century fluctuations stemmed in part from the balance of international payments, through changes in foreign demands for American goods and in the flow of foreign capital to this country. To these influences were added an unsound banking system, which received most of the blame, and a pattern of investment in fixed capital which was very unstable.

Table V shows in briefest outline the behavior of Federal surpluses and deficits during seven major business-cycle peaks and recessions. In each case there is a strong correspondence between fiscal policy and the phase of the cycle. With one exception, the Government shifted from a position of surplus at or before the peak to one of deficit during the recession. The one exception was in the high-surplus times of the 1870's, and then the surplus dropped off sharply in recession. This pattern was largely imposed on the Government by declining revenues in recession.

TABLE V.—*Federal surpluses and deficits during major cycle peaks and recessions, 1815–1932*

[Surplus or deficit (−) expressed as percent of average revenue and expenditure during the included cycle]

	Period							
	1815–21	1834–42		1854–60	1870–76	1890–96	1904–11	1926–32
1	63	12		32	36	30	−9	29
2	67	65		12	29	13	−6	32
3	40	83	5	16	34	4	4	27
4 (peak)	6	−132	12	3	18	3	12	26
5	12		−19	−42	8	−20	−12	25
6	−5		−30	−27	5	−13	−17	−29
7	−10		−23	−15	8	−11	−3	−82
	Average revenue and expenditures							
Millions of dollars	24.9		29.4	61.8	316	335	589	3,400
Percent of gross national product	1–2		1–2	1–2	4–5	2–3	2–3	4–5

NOTE.—Data for 1834–37 are on left side, 1838–42 on right side of the column for 1834–42, since both 1837 and 1839 are regarded as peak years.

When deficits resulted, they were usually financed through borrowing from banks, drawing on Federal cash balances, or issuing more currency or near-currency. Consequently they probably exerted some cushioning effect during recessions. It is not certain that surpluses exerted any check during boom periods, however, since repaying the public debt often channeled funds into an active capital market where they were in demand.

The cushioning effect of Federal deficits was limited by the tendency to cut Federal expenditures in response to declining revenues during 19th century recessions. However, expenditures were actually increased in the recession following 1907, chiefly for naval expansion.

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And in the years following 1929, spending rose through programs aimed at the economic slump itself.

In all cases except possibly that of post 1929, the magnitude of Federal deficits relative to total GNP was so small as to render their possible income effects insignificant.

Contemporary official opinion disapproved of depression deficits, but generally tax rates were not increased to do away with them. The tariff increase of 1842 is somewhat of an exception, and a clearer exception was another tariff increase of 1875. In both cases, however, the increases were desired for protectionist as well as revenue purposes. Further, their effect on national money income was not necessarily deflationary. We conclude that tax increases did not impair the expansionary effects of Federal deficit spending in pre-1929 depressions.

The case of the recession years following 1929 is drastically different. Although minor tax reductions were made in 1930, in 1932 a Democratic House joined a Republican Senate and President Hoover in enacting the largest peacetime tax increase in history. This measure cut substantially into the beneficial effects of the increased Federal spending. We shall return to this shortly.

Public opinion in and out of the Government has always been painfully aware of economic depressions and articulate in search of a cure. But throughout the 19th century and well into the 20th, the discussion of the causes and possible remedies ran heavily in terms of money and the banking system. Emphasis in fiscal theory was placed on the monetary effects of Federal surpluses and deficits, rather than their direct relation to income flows.[12]

Nor was Treasury concern with money and banks merely a matter of thinking and talking. From the time of Hamilton, Treasury officials used their discretionary authority over the public debt and the Government's cash balance as methods of trying to alleviate depressions, panics, and stringencies. After the Civil War the Treasury was intimately concerned with this at all times, until the formation of the Federal Reserve System.[13] When an occasional insight into the potential benefits of depression deficits did appear, it was usually accompanied by constitutional scruples against such action.[14]

Fiscal policy and depression, 1929–40

The management of Federal fiscal policy during the depression is still interesting and relevant to contemporary affairs. Numerous erroneous views about it still prevail. The student of stabilization policy must be especially concerned with two common assertions. One is

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[12] Considering the relative magnitudes involved, this was perhaps the correct emphasis. In the years 1846–60, for instance, Treasury transactions were carried on chiefly in specie, and the scale of absorptions and releases of specie by the Treasury made a much larger impact on bank reserves than did fiscal policy on incomes. I have quoted some relatively sophisticated theories of this monetary relationship by contemporary writers both in and out of Government in The Idea of "Built-In Flexibility," 1837–60, Public Finance/Finances Publiques, XI : 4, 1956.

[13] See Esther Rogoff Taus, Central Banking Functions of the United States Treasury, Columbia University Press, New York, 1943.

[14] In face of declining revenues during the panic of 1857, Secretary of the Treasury Howell Cobb wrote, "It is seriously urged that our expenditures should be increased for the purpose of affording relief to the country. Such a policy would undoubtedly furnish employment to large numbers of worthy citizens. It would require the use of large amounts of money, to be raised either by a loan or * * * Treasury notes, and would thus afford temporary relief to the country to an extent limited only by the discretion of the Government * * *. But where shall we look for the power to do this in the Constitution?" Cobb did urge that expenditures not be reduced, even if deficits had to be incurred. Annual Report on the State of the Finances, 35th Cong., 1st sess., H. Doc. No. 3, p. 11. President Buchanan endorsed the principle of expenditure maintenance, and the extent of reductions was slight.

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that such New Deal measures as agricultural supports, the NRA, the National Labor Relations Act, social security, the wage-hour law, and monetary and banking reforms restored the country to prosperity. The second, from a different quarter, is that the New Deal was an embodiment of Keynesian doctrine, that it engaged in large-scale deficit financing, and that the evident failure to cure the depression proves that deficit spending won't work.

Table VI summarizes some of the important economic magnitudes of the depression years.

TABLE VI.—*Statistical background of the great depression*

Calendar year	Gross national product	Output in 1929 prices	Consumption		Gross business investment	Government purchases	Percent of labor force unemployed
			Total	As percent of disposable incomes			
	Billions	*Billions*	*Billions*	*Percent*	*Billions*	*Billions*	*Percent*
1929	$104	$104	$79	95	$13.0	$9	3
1930	91	95	71	95	8.0	9	9
1931	76	88	61	96	4.0	9	16
1932	59	77	49	101	.3	8	24
1933	56	73	46	101	1.0	8	25
1934	65	80	52	100	2.0	10	22
1935	73	90	56	96	5.0	12	20
1936	83	100	63	95	7.0	12	17
1937	91	108	67	95	10.0	12	14
1938	85	102	65	98	5.0	13	19
1939	91	110	68	96	7.0	13	17
1940	101	120	72	94	10.0	14	15

Fiscal year	Federal revenues	Federal expenditures	Deficit (−) or surplus	Fiscal year	Federal revenues	Federal expenditures	Deficit (−) or surplus
	Billions	*Billions*	*Billions*		*Billions*	*Billions*	*Billions*
1929	$3.8	$2.9	$0.9	1935	$3.8	$6.3	−$2.4
1930	4.0	3.1	.9	1936	4.2	7.6	−3.5
1931	3.2	4.1	−1.0	1937	5.6	8.4	−2.8
1932	2.0	4.8	−2.7	1938	7.0	7.2	−.1
1933	2.1	4.7	−2.6	1939	6.6	9.4	−2.9
1934	3.1	6.5	−3.3	1940	6.9	9.6	−2.7

Sources: Economic Report of the President, 1956; Department of Commerce, National Income, 1954; Historical and Descriptive Supplement to Economic Indicators, 1957.

The late 1920's were years in which, under the influence of the stock-market boom, industrial capital equipment was built up at a rate which could only have been sustained if total expenditures for goods and services increased more rapidly than they could be expected to. Once actual expansion ceased, as it did in the summer of 1929, business needs for additional capital goods fell. And when demand for output began to fall, many firms found themselves with excessive capital. The downswing was a reciprocal process in which business investment and personal consumption spending kept pushing each other further down. By 1932 business investment had nearly ceased altogether.

The figures indicate that the decline in consumer spending was wholly induced by declining incomes—in fact consumers spent a larger proportion of their incomes than in prosperous times. Much of the decline in investment can also be regarded as induced by falling demand. The reluctance of consumers to cut their spending in propor-

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tion to their incomes—in fact, their willingness to spend more than their disposable incomes in 1932–33—probably did the most to prevent the decline from continuing further.

The Hoover administration was not indifferent to the distress around it. In fact, the President spoke truthfully when he asserted in 1931 that—

> for the first time in history the Federal Government has taken an extensive and positive part in mitigating the effects of depression and expediting recovery.[15]

Emergency agencies were created; innumerable conferences were held. More important, Federal expenditures were increased substantially, with particular emphasis on construction. The Government had started from a position of substantial surplus, and for a time could spend more without a deficit. In combination with declining revenues, however, this increase produced large deficits in fiscal 1932 and 1933—larger on the average, in fact, than those of the 6 subsequent years of the New Deal. The deficits alarmed the President, and during the last 2 years of his administration he manifested a concern for cutting expenditures and increasing tax revenues which amounted to an obsession. This concern stemmed in part from a conviction that deficits were economically harmful.[16] Unfortunately for the Nation's economy, most respectable opinion shared this view. Consequently Congress enacted in 1932 a substantial increase in income and excise taxes.

Hoover's defeat and the advent of the New Deal in 1933 opened the way for a drastic reorientation of Federal functions, but this did not extend to fiscal policy.

Our statistics drive home two important facts: First, the New Deal did not get the country out of the depression. Average annual ememployment did not fall below 14 percent in the years 1933–40 and was still 10 percent in 1941. Second, the New Deal did not engage in large-scale deficit spending. Federal expenditures rose substantially, but were matched by higher taxes. The experience of the 1930's gives us little evidence of the potential effectiveness of deficits in depression. The rapid expansion of output and unemployment under the stimulus of large deficits in World War II are much more indicative of their potential power.

There is ample evidence that President Roosevelt largely shared the fiscal views of his predecessor. During the campaign in 1932 he criticized Hoover for incurring deficits and promised to wipe them out through economy. Upon inauguration he took steps to reduce

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[15] William S. Myers and Walter H. Newton, The Hoover Administration: A Documented Narrative, Charles Scribner's Sons, New York, 1936, p. 20.

[16] In 1932 he stated that "it is generally agreed that the balancing of the Federal budget and unimpaired national credit is indispensible to the restoration of confidence and to the very start of economic recovery * * *." Quoted in James A. Maxwell, Fiscal Policy, Henry Holt, New York, 1955, p. 13. For a history and analysis of this and related ideas, see Jesse V. Burkhead. The Balanced Budget, Quarterly Journal of Economics, May 1954, reprinted in Arthur Smithies and J. Keith Butters, eds., Readings in Fiscal Policy, Richard D. Irwin, Homewood, Ill., 1955; Sidney S. Alexander, Opposition to Deficit Spending for the Prevention of Unemployment in Income, Employment, and Public Policy: Essays in Honor of Alvin Hansen, W. W. Norton, New York, 1948.

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Government salaries and veterans' pensions. In his budget message of January 1934, he stated:

> we should plan to have a definitely balanced budget for the third year of recovery and from that time on seek a continuing reduction of the national debt.

Taxes were increased in every year from 1933 through 1937. The first agricultural adjustment program was financially based on a wickedly regressive processing tax, rather than deficits. The social security system was set up with a strongly deflationary reserve provision and a regressive tax-rate structure. New Deal deficits were, through 1937, the inadvertent and undesired result of expenditures undertaken for their own sake.[17]

President Roosevelt did not see the depression as a problem of inadequate spending, but rather of undesirable price declines. In aiming his recovery measures chiefly at prices, he failed to distinguish between higher prices as a symptom of strong demand and as a symptom of short supply. His administration also interpreted the depression largely in terms of the particular problems of particular distressed sectors, without perceiving their common difficulty. In consequence, the emphasis of the so-called "recovery" program was on measures essentially restrictionist in their nature, notably the NRA and the first AAA. Likewise, the revaluation of the dollar, the National Labor Relations Act, and the wages and hours law did not bring any net increase in the total income and spending capacity of the economy as a whole.

In 1937, expenditure cuts recommended by the President and the influx of social-security tax revenues reduced the Federal cash deficit almost to zero. Partly in consequence, the economy fell into a short but painful and disturbing recession. This finally brought the President to accept a positive role for fiscal policy as such, as evidenced by his "spend-lend" program and budget message of January 1939, and expenditure increases restored the cash deficit.

On the whole, New Deal fiscal policies made no strong contribution to recovery.[18] Their shortcomings are measured by the slow and tortuous rise in consumption. Tax increases prevented the rise of Federal expenditures from producing any substantial increase in consumer disposable incomes. Had the latter risen, consumer spending would undoubtedly have gone higher and helped restore business investment.

Several relevant lessons may be derived from New Deal experience. Adherents of fiscal conservatism may note that public opinion will not tolerate Government inaction in the face of depression. Consequently, if the Government does not do the right things (increasing total spending), it will probably do the wrong things—things which in-

[17] "There is no evidence that the administration, as distinct from some persons within it and some economists offering advice from outside, ever had a conscious interest in fiscal policy as an instrument of recovery prior to the new depression in 1938. Government spending was primarily for relief and was regarded only as the unavoidable accompaniment of unemployment until recovery could be achieved by other means." John H. Williams. The Implications of Fiscal Policy for Monetary Policy and the Banking System, Papers and Proceedings of the American Economic System March 1942, reprinted in Readings in Fiscal Policy, pp. 190–191.

[18] This is the conclusion reached by E. Cary Brown, Fiscal Policy in the Thirties: A Reappraisal, American Economic Review, December 1956. Compare the more favorable view reached by Gerhard Colm, Public Spending and Recovery in the United States, abridged from Social Research, May 1936, in his Essays in Public Finance and Fiscal Policy, Oxford University Press, New York, 1955.

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crease Government intervention in detailed production, price, and income decisions, or which give favored groups protection from the rigors of competition and change. Deficit spending may appear more attractive as an alternative to these. Latter-day liberals may be reminded that good intentions are not sufficient to produce good policies, even if wrapped in the finest rhetoric. And one should not accept uncritically the whole panoply of New Deal measures on the assumption that they really restored the economy to a prosperous condition. However, in all fairness, we must point out that many New Deal measures, while ineffectual in curing the depression of the 1930's, have become important parts of our defense against any future depression. This refers particularly to the structural reforms of the banking and financial system and to the automatic flexibility latent in the social security and agricultural programs.

Recent developments and contemporary problems

Fiscal policy since 1940 has been marked by a much higher degree of rationality than before, particularly since the Employment Act of 1946. The performance of fiscal policy, as measured by the maintenance of high production and employment, has been good. Recessions have been mild and have been met with appropriate responses in tax and spending policies. Closer examination may leave us uncertain as to what this experience proves, however.

First, high levels of demand in recent years have reflected continued high Federal defense spending and a relatively unflagging rate of business-capital formation. There has been no practical demonstration of what fiscal policy could do to reduce the adverse effects should either of these decline substantially.

Second, the good performance of fiscal policy in offsetting recessions has been partly good luck. This is notoriously evident in the case of the tax reduction of 1948, passed over a Presidential veto in the last stages of inflation, to go into effect just as the economy was sliding into unforeseen recession. More favorable in appearance was the willingness of the Republican administration to reduce taxes and incur deficits during the recession of 1953—but the recession itself stemmed largely from cuts in defense spending.

Third, fiscal policy has shown much less capacity for curbing inflation. This partly reflects the political difficulty that counterinflation measures reduce people's access to money and are therefore likely to be unpopular. But there are other limitations. It would have been undesirable to increase taxes in World War II sufficiently to drain off inflationary demands, although more could probably have been done safely than was. The Korean emergency indicated that fiscal policy probably cannot cope with a sudden outburst of private scare buying, although the flexible tax structure undoubtedly absorbed some of the pressure, and tax-rate increases were admirably strong.

Most recently, the outbreak of the "new inflation" in the last 18 months has raised the disturbing possibility that some inflation may come from costs rather than excessive demand. The actual importance of the Federal budget itself as an inflationary force in this period remains unclear, although it is easy to find fault with the view that the cash budget cannot be inflationary unless it shows a deficit. The proper role of fiscal policy in such an inflation is also unclear—can price increases be prevented by curtailing demand without producing

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too much unemployment and loss of output? The contemporary challenge to fiscal policy seems to lie in the problem of inflation control, and particularly in controlling the expansion of Federal spending in the face of many legitimate demands and needs for increases.[19]

Fiscal Policy and Economic Growth

The relation between fiscal policy and economic growth takes many forms. Obviously Government functions and activities such as research, public capital formation, health and education programs, etc., can actively promote growth. This discussion will deal only with aspects which pertain to fiscal policy as a whole. Two chief types of influence can be distinguished. On one hand, a fiscal policy which promotes economic stability, high incomes and demands, and relatively full employment will undoubtedly help to stimulate the incentives of business firms to invest and to innovate.[20] But we have no real historical evidence on this as yet.

Fiscal policy can also influence the availability of funds for investment. Historically the important influences have been the tax structure and public-debt policy. The tariff-excise combination of the 19th century probably placed the burden primarily on consumption. The shift to personal and corporate income and profits taxes has undoubtedly increased the relative burden on saving, and through it, on investment. Probably the most serious aspect of this has been the disadvantage imposed on the investment capacity of small, growing firms. One's judgment on the relative loss to aggregate investment must certainly be conditioned by the enormous volume of capital formation which the economy has generated in the past decade.[21]

Public-debt policy may also exert a substantial influence on the volume of investable funds. Historically, Federal borrowing has generally occurred during periods of war or depression and has invariably drawn to a large extent on newly created money or idle balances, instead of diverting funds from private capital formation. Debt retirement, however, has generally occurred in prosperous times, when the demand for funds has been high for capital formation. Debt retirement has commonly placed funds in the hands of wealthy individuals and financial institutions, so that they were likely to move into other investments rather than consumption.

Together, the revenue and public-debt policies of the 19th century probably exerted an influence in the direction of "forced saving," diverting funds out of consumption into investment. However, the Government's revenues from land sales removed some funds from the capital market.

A rough estimate, making allowance for issue and redemption of currency and near-money, suggests that Federal finance shifted about

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[19] An excellent brief review of the period since 1930 is given in Gerhard Colm, Fiscal Policy and the Federal Budget, in Max Millikan, ed., Income Stabilization for a Developing Democracy, Yale University Press, New Haven, 1953, pp. 214–227. On the postwar period, see also Alvin H. Hansen, The American Economy, McGraw-Hill, New York, 1957, pp. 90–131.

[20] One must beware of the fallacy in the often-encountered argument that the Government must promote high consumption (e. g., through taxes which bear more on saving) in order to stimulate (induced) investment. Any kind of spending for the products of a capital-using firm can stimulate induced investment, and consumption may actually do so less than some other possible types. A high-consumption economy may be desirable, but hardly because it will produce a high rate of output growth. It is a high-demand, full-employment economy generally which is desired.

[21] On these matters, see papers by R. A. Musgrave, J. K. Butters, and Paul W. McCracken in Federal Tax Policy for Economic Growth and Stability.

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$80 millions into the capital market from consumption in 1790–1860, most of it representing redemption of securities for which the Government received no money originally. During the period of heavy postwar debt retirement in 1866–90, about $600 million was so shifted, but in the period 1891–1916, the Government was a net borrower of about $250 million.

During the 1920's, the Government poured some $9 billion into debt retirement, but the reduction in saving through progressive taxation may have been equally large. After World War II, net cash debt retirements in 1947–52 totaled about $30 billion. Most of this passed through commercial banks and insurance companies (directly, or indirectly through shifts in remaining debt) into other financial assets and thus into the capital market.[22] Again, the adverse effect of taxation on saving may have offset this. But one should certainly not look merely at that adverse effect without noting that the debt retirement may have offset it.

Some Conceptual Problems Underlying Historical Analysis

The characteristic analysis of fiscal policy runs in terms of such aggregates as revenues, expenditures, surpluses and deficits. Definitions and computations of these have traditionally been determined by the information needs of government officials, which have not always coincided with the interests of economists.

One approach to fiscal data would follow the conventions of national income accounting. Government revenues and expenditures would be those included in the income and product accounts as computed by the Department of Commerce.[23] This particular compilation has several possible drawbacks. It gives taxes on the basis of accruals rather than collections, and it omits certain transactions which seem to fall economically in between income and product at one extreme and public debt at the other. These are mainly Government lending and repayment, and in the past, transactions in land. These drawbacks do not exist in the cash consolidated statement of receipts from and payments to the public which currently appears in the annual budget document. The figures used in this paper come closer to the latter basis of calculation.

Use of the term "cash" in the latter case is somewhat misleading—"current account" would be more nearly correct. A genuine cash-consolidated account for the Government is found in the money-flow analysis developed by Morris Copeland and now published by the Federal Reserve Board of Governors.[24] This approach has the advantage of incorporating public-debt policy, which may be significant even for short-term fiscal interpretations. It is generally assumed, for example, that a cash surplus is deflationary, but if the funds are used to repay publicly held debt in prosperous times, when the funds find their way promptly into private spending, the conclusion may be unwarranted.

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[22] See data in Federal Reserve Bulletin, August 1953, pp. 857, 865, 874.
[23] See National Income, 1954, pp. 170–173, for figures on this basis.
[24] See particularly their Flow of Funds in the United States, 1939–53, 1955. I have computed a set of money-flow accounts for the Federal Government for 1790–1860 which are in process of publication by the National Bureau of Economic Research in a volume of papers on 19th century economic growth.

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As a rule, added refinements, with their costs in compiling and complications in using, are only as valuable as the uniformities of behavior on which they rest. What one really wants to know to analyze fiscal policy is, first, from whom did the money come and what would those people have done with it otherwise; and second, to whom did the Government pay it, and what did the recipients do with it? Variations in the response to one tax or one spending program may create a degree of indeterminacy which swamps added refinements in classification.

Statistical Sources and Methods

The "official" figures on Federal receipts and expenditures as published in numerous Treasury and other documents contain certain deficiencies for the economist. In part these stem from the classifications, which are administrative rather than either functional or economic. In part they stem from capricious patterns of inclusion and exclusion. For the years since World War I, the official figures have been badly inadequate because of the existence of Government corporations and trust funds whose activities are not accurately reflected by summary data on receipts and expenditures in traditional form. For recent years, the problems have been recognized and met to some extent by the statistical devices noted above. They give data back as far as 1929, usually. Professor Kendrick has computed cash-consolidated expenditures data for earlier years, but they are not ideal for pre-1900 dates.

The defects in the official data exist for figures all the way back to the 1790's. One systematic distortion, more important before 1870, was the lack of conformity between the accounts of the Treasury, which the official data summarize, and the accounts of the collecting and disbursing officers who actually dealt with the public. During the Civil War, for instance, more than $100 million shown by Treasury figures as spent was actually accumulated in disbursing officers' balances from which most of it was disgorged in 1866.

The transactions of the Post Office were also outside the ordinary Treasury summaries, and while this paper adheres to the convention of netting postal transactions, it does not imply unqualified approval. There have also been trust funds and/or Government corporations as far back as 1796. The security-holding trust fund was extensively used prior to 1860, with considerable investments being made in State government bonds. After the Civil War, this practice largely gave way to the use of bookkeeping trust funds not involving segregated accounts, but these gave rise to fictitious transactions in the summary accounts.

Treasury summary figures make some unsatisfactory inclusions and exclusions. Their totals for ordinary receipts sometimes include seigniorage charges and premiums on sale of gold or securities. Expenditure totals may include debt premiums paid, trust fund or other security transactions, and tax refunds. They do not show the payment of $28 million surplus revenue to States in 1837.

The statistics on receipts and expenditures used in this paper were compiled in an effort to overcome these shortcomings. They consist of completed estimates for 1789–1860, fairly close preliminary estimates for 1861–90, and a relatively sloppy first approximation for

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1891–1916. From that point I have used Kendrick's data, which merge into the contemporary official publications. For receipts, my approximations go to 1929.

Estimates through 1890 were constructed on the basis of the annual Account of Receipts and Expenditures of the United States, published by the Register of the Treasury. These present in vast detail the data which are the basis for the summary totals appearing in the Treasury annual reports. The detail is generally adequate to classify the items and remove undesirable ones.[25]

For the period through 1860, separate financial accounts were compiled for all Federal agencies carrying on financial transactions. These were derived chiefly from the annual or other published reports of executive departments appearing in the series of American State Papers or the executive documents of Congress. From all these was computed a consolidated money-flow account of all transactions with the public.

For the period 1861–90, a sampling of sources indicated that the discrepancies arising out of collecting officers' accounts were negligible. The time lag in expenditures, reflected in changing levels of disbursing officers' balances was occasionally important, however. For the war period, these balances were ascertained as much as possible from detailed reports. For the peacetime periods, however, they were estimated to be a relatively constant and in the long run declining fraction of transactions.

One major adjustment was imposed on the data for 1862–79. During this period the Treasury conducted part of its transactions in coin and part in currency which was substantially depreciated relative to coin. In order to show all transactions in a common unit, customs revenues and interest payments (which were made in coin) were converted to currency values by multiplying them by the average gold premium of the year.

For the years after 1890, estimates were constructed from Treasury annual reports. For the entire period 1790–1916, data were adjusted to exclude tax refunds, interest receipts, sales of Government property, and certain fictitious trust-fund transactions from both receipts and expenditures. Revenues from seigniorage and securities issues were excluded, as were expenditures for securities. The postal account was modified to contain the actual difference between revenues and expenditures, rather than the payment to or from the Treasury.

The "official" cash-revenue figures for 1929–47 do not show the composition of revenues. I estimated these to be the same proportion of totals as the accrual data in National Income, 1954, pages 170–171. For the 1948–58 data were obtained from the annual budget documents for 1950–58. Refunds were excluded, their distribution being roughly estimated. I doubt that my revenue series is exactly commensurable with that for expenditures, particularly for 1920–29.

[25] Incidentally, it is clear that the data in Receipts and Expenditures, and therefore in the Treasury summary tables, reflect warrants actually paid by the Treasurer (through 1890, at least), and not merely warrants issued, as alleged in the explanations of the Treasury summary tables. For an explanation, see Secretary Bristow's statement in 44th Cong., 1st sess., Senate Reports, No. 371 (1876), pp. 36–37.

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Other data used in table I were assembled in the following manner. GNP figures for 1790–1865 were based on my own estimates (expressed as a range). These were derived by adjusting the estimates of R. F. Martin to meet certain conditions suggested by Kuznets.[26] For pre-1861, Federal expenditures are so small that a wide range of indeterminacy in GNP figures does not change the percentage very much. For the Civil War period, I made annual range estimates, adjusting 1860 estimates with price data.

For all the data on per capita expenditures in 1926 prices, and for GNP comparisons after 1865, I adjusted Kendrick's figures in proportion to the discrepancy between them and mine. This somewhat piratical technique saved me a vast amount of work, and I am most grateful to the National Bureau of Economic Research for permitting the use of this material.

[26] Martin's estimates are given in Studies in Enterprise and Social Progress, National Industrial Conference Board, New York, 1939, p. 79. See Simon Kuznets, National Income Estimates for the United States Prior to 1870, Journal of Economic History, June 1952. I figured GNP to be 10 to 15 percent above national income.

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