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Volume Author/Editor: Morris A. Copeland

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Chapter Author: Morris A. Copeland

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## CHAPTER III

### A Further Historical Review

In Chapter II we argued that the growth of government debts cannot be adequately understood by considering solely the particular expenditures which have been said to occasion particular debt issues; that it is necessary to take account of the time pattern of total nonfinancial expenditures and of the considerations which may make against matching this with a closely similar time pattern of total nonfinancial receipts.

It should contribute to an understanding of government financial requirements, therefore, to consider in somewhat greater detail the course of government expenditures, receipts, and deficits, and the growth of government functions during recent decades. But of course such a survey can be expected to turn up facts that are irrelevant to our present purpose as well as relevant ones.

Let us take first the fiscal operations of the federal government.

#### 1. *Federal Receipts, Expenditures, and Deficits*

Table 5 shows the course of federal nonfinancial receipts, expenditures, and deficits since 1890. The low level of receipts in the mid-1890's and the 1908 decline reflect depressed business conditions. The decline in 1902 followed repeal of war emergency taxes; in that of 1915 the reduced collections of customs duties under the Underwood Tariff Act, 1913, were a major factor. The table makes clear the small effect of the Spanish-American War on expenditures and the promptness of the increase in revenues. To bring out another fiscal aspect of this war would require a more detailed table—military expenditures in subsequent years never receded to the prewar level. Capital outlays on the Panama Canal during 1904 and the succeeding decade helped to raise the level of total expenditures during these years.

During the quarter-century before World War I federal nonfinancial uses of funds showed a strongly upward trend; the annual average in 1904-13 was some 90 per cent above that for 1889-98. This increase reflected mainly a growth in federal employment; total civilian employment increased nearly 140 per cent from 1896 to 1911, the armed forces

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TABLE 5

Federal Government Nonfinancial Receipts, Expenditures, and Deficits, 1890-1954  
(billions of dollars)

Fiscal Year				Calendar			
	Receipts	Expenditures	Deficit	Year	Receipts	Expenditures	Deficit
1890	.46	.38	-.08	1929	4.95	3.70	-1.25
1891	.46	.44	-.02				
1892	.42	.40	-.02	1930	4.80	3.80	-1.00
1893	.46	.46	<sup>a</sup>	1931	3.55	5.05	1.50
1894	.38	.44	.06	1932	2.70	4.10	1.40
				1933	3.05	5.05	2.00
1895	.40	.42	.02	1934	4.15	7.60	3.45
1896	.42	.44	.02				
1897	.44	.44	<sup>a</sup>	1935	4.65	7.60	2.95
1898	.50	.54	.04	1936	5.60	10.40	4.80
1899	.62	.70	.08	1937	8.20	8.20	<sup>b</sup>
				1938	8.30	9.50	1.20
1900	.66	.62	-.04	1939	7.80	10.25	2.45
1901	.70	.64	-.06				
1902	.68	.60	-.08	1940	8.60	10.80	2.20
1903	.70	.66	-.04	1941	12.50	22.20	9.70
1904	.68	.72	.04	1942	23.70	64.50	40.80
				1943	46.00	98.90	52.90
1905	.70	.72	.02	1944	58.20	109.00	50.80
1906	.76	.74	-.02				
1907	.84	.76	-.08	1945	59.00	95.80	36.80
1908	.80	.86	.06	1946	54.60	49.60	-5.00
1909	.82	.90	.08	1947	52.50	41.70	-10.80
				1948	51.30	41.40	-9.90
1910	.90	.92	.02	1949	49.00	48.50	-.50
1911	.94	.92	-.02				
1912	.94	.94	<sup>a</sup>	1950	49.10	49.40	.30
1913	.98	.98	<sup>a</sup>	1951	66.10	65.40	-.70
1914	1.02	1.02	<sup>a</sup>	1952	78.80	79.10	.30
				1953	78.40	85.10	6.70
1915	.98	1.04	.06	1954	77.60	79.90	2.30
1916	1.08	1.04	-.04				
1917	1.44	2.24	.80				
1918	4.00	12.68	8.68				
1919	5.50	18.38	12.88				
1920	7.12	6.74	-.38				
1921	6.08	5.10	-.98				
1922	4.46	3.86	-.60				
1923	4.44	3.82	-.62				
1924	4.58	3.62	-.96				
1925	4.32	3.68	-.64				
1926	4.60	3.60	-1.00				
1927	4.80	3.66	-1.14				
1928	4.68	3.80	-.88				
1929	4.72	3.88	-.84				

<sup>a</sup> Less than \$10 million.

<sup>b</sup> Less than \$50 million.

SOURCE: See Appendix A.

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TABLE 6

A Comparison of Federal Nonfinancial Expenditures to Gross National Product

<i>Annual Average of GNP</i>	<i>Ratio of Total Nonfinancial Federal Expenditures to Col. 1</i>	<i>Ratio of Federal GNP Expenditures to Col. 1</i>	<i>Ratio of Transfer- type Federal Expenditures to Col. 1</i>	<i>Ratio of International Aid to Col. 1</i>	<i>Ratio of Federal Enterprise Payrolls to Col. 1</i>
(billions of dollars)	(per cent)	(per cent)	(per cent)	(per cent)	(per cent)
(1)	(2)	(3)	(4)	(5)	(6)
KUZNETS ESTIMATES					
1889-98	12.73	3.4 <sup>a</sup>			
1894-1903	15.71	3.5 <sup>a</sup>			
1899-1908	21.58	3.3 <sup>a</sup>			
1904-13	28.78	2.9 <sup>a</sup>			
1909-18	40.12	5.8 <sup>a</sup>			
1914-23	61.90	9.0 <sup>a</sup>			
1919-28	81.20	6.8 <sup>a</sup>			
1924-33	79.13	5.1 <sup>b</sup>			
1929-38	69.95	9.3			
COMMERCE DEPARTMENT					
1929-38	77.9	8.4			
1930-39	76.7	9.3	4.2	3.9	0
1940-45	168.8	39.2	21.6	3.2	3.6
1946-49	240.4	18.3	8.7	6.1	1.5
1950-51	306.7	18.2	10.3	5.4	1.5

<sup>a</sup> Average of ten fiscal years.

<sup>b</sup> Based on one-half fiscal year 1924 + fiscal year 1925 through 1928 + one-half fiscal year 1929 + calendar year 1929 through 1933.

<sup>c</sup> Negligible.

NOTE: Columns 3 and 6, and column 4 except for one component, are based upon Department of Commerce national income and product estimates. They do not include wartime subsidies. Transfer-type expenditures include grants-in-aid to state and local governments, transfer payments, interest, and farm benefits (this last from *Agricultural Statistics*). Column 5 covers aid not including loans, as shown in the balance of international payments statement.

by 260 per cent.<sup>1</sup> Nonetheless, while federal functions were expanded during the years 1889-1913, the rest of the economy was growing more rapidly; the ratio of federal expenditures to GNP was declining. See Table 6.

World War I had relatively little influence on federal expenditures

<sup>1</sup> Solomon Fabricant, *The Trend of Government Activity in the United States since 1900*, p. 182. No average figure for 1889-98 is available. Nonfinancial expenditures increased approximately 110 per cent, 1896 to 1911. It may be noted that price increases were a factor also. Albert Rees's cost of living index averaged 93.3 during 1904-13 and 87.1 during 1890-98. See Thirty-eighth Annual Report of the National Bureau of Economic Research, May 1958, p. 59.

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until we entered it. But from fiscal 1916 to fiscal 1919 there was a seventeen-fold increase in expenditures.<sup>2</sup> Receipts were increased much more slowly—with the war debt as a result.

The war brought a sharp increase in the ratio of federal expenditures to GNP. Then something like the earlier postwar pattern repeated itself. The ratio declined. However, civilian employment reached a new high peacetime level in the decade 1924–33, some 67 per cent above that of 1904–13, reflecting mainly a substantial growth in civil functions.<sup>3</sup> But while the armed forces receded from their wartime level, they remained well above prewar strength; the 1924–33 average exceeded that of 1904–13 by approximately 100 per cent.<sup>4</sup> Further, the comparison of these two decades shows a reversal of the earlier downward trend in the ratio of federal ordinary expenditures to GNP—it was 5.1 per cent in the postwar decade, 2.9 per cent in the prewar. Still, the shorter-term movement seems to have been downward during the 1920's; the ratio was 4.4 per cent in 1923,<sup>5</sup> 3.6 per cent in 1929.

A lag in the adjustment of tax rates to expenditures was obvious during the war; it appeared also, though less markedly, during the 1920's. Both the idea of a "return to normalcy" and depression psychology played a part in bringing about tax cuts in 1921. A number of excises that had been levied as war emergency measures were repealed; most other tax rates were revised substantially downward. Budget surpluses encouraged milder additional downward tax revisions in 1924, in 1926, and again in 1928. But all these revisions served only to check the growth of tax yields that resulted from the expansion of business activity. Notwithstanding the revisions there were eleven years of surpluses which reduced the net debt by nearly \$10 billion.

Even in calendar 1930, despite the sharp business recession in process there was a surplus; there was no marked effect of the recession on tax collections until 1931.<sup>6</sup> In that year in addition to the decline in receipts there was a significant countercyclical increase in expenditures, chiefly but not entirely in the form of adjusted service certificate payments. Revenues declined further in 1932 while expenditures were roughly 10 per cent above the predepression level. Somewhat larger countercyclical

<sup>2</sup> The table counts loans to our allies as nonfinancial expenditures. In the wisdom of hindsight it seems proper to treat these "loans" as grants-in-aid.

<sup>3</sup> Fabricant, *loc.cit.* The comparable increase for total defense employment including civilians was 93 per cent. *Ibid.*, pp. 186–87.

<sup>4</sup> *Ibid.*

<sup>5</sup> The average of two fiscal year figures is used in the numerator of this computation.

<sup>6</sup> No doubt the fact that the tax base for both the individual and the corporate income tax was the previous year's income was a major factor in the lag in the adjustment of tax collections at the start of the recession, and in the lag during World War I as well.

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expenditures during the next four years—including the bonus in 1936—brought large deficits, although these increased expenditures were partially offset by several cyclically perverse tax increases. In 1937 non-financial receipts substantially balanced nonfinancial expenditures. Then with renewed increases in countercyclical expenditures in 1938 and 1939 there were deficits again in these two years.

With the coming of the great depression the ratio of federal expenditures to GNP had again markedly increased. The lower portion of Table 6 indicates the importance of two major components of federal nonfinancial expenditures: those for purchases of GNP and transfer-type items (interest, grants-in-aid to state and local governments, farm benefits, and what the Commerce Department calls "transfer payments").<sup>7</sup> A good deal of the depression increase recorded in column 2 can be attributed to transfer-type items. Interest had accounted for most such expenditures during the 1920's. Of the 3.9 per cent for 1930-39 it was only about one-fourth. Aids and benefits became important during the depression. Moreover, for some purposes work relief payrolls might well be grouped with these transfer-type items. If they were, the entry in column 4 would be increased from 3.9 per cent to 5.1 per cent.

If we take the 1939 figures in Table 5 as an approximate prewar base and subtract them from the figures for each of the immediately following years the additional expenditures attributable to World War II, 1940-45, may be roughly estimated at \$335 billion, the additional revenues at \$158 billion. This indicates that some 46 per cent of the war expenditures was financed out of current receipts, the rest by borrowing. We may compare these computations with similar ones for World War I, in which fiscal 1916 is taken as a base. The total step-up in expenditures in 1917-19 was \$30.3 billion. In receipts it was \$7.8 billion, or about 26 per cent of that in expenditures. Despite the roughness of this computation it seems fair to conclude that there was proportionately a good deal less deficit financing during World War II. The absolute increase in net debt was of course much greater. No doubt, the shifting of the individual income tax to a pay-as-you-go basis in mid-1943 had helped to speed up the increase in tax collections, but there is no reason to suppose the lag in the increase of receipts behind expenditures would have been fully eliminated had this shift been made three years earlier.

The rise in the ratio of total nonfinancial federal expenditures to GNP during World War II needs no comment. However, it may be interesting

<sup>7</sup> Note that the GNP base used in this portion of the table is grosser than that in the upper part. Among the components of nonfinancial expenditures, other than those indicated in columns 3 and 4, are enterprise payrolls, enterprise current procurement, and—particularly during the 1940's—cash subsidies other than farm benefits and purchases of goods offset against sales of surplus property.

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to compare this ratio for 1918 and 1944. It was 18.7 per cent in the former year, 51.3 per cent in the latter.<sup>8</sup>

Another war comparison is suggested by Table 5. Expenditures in 1947 were nearly four times those in 1939. Expenditures in 1922 were about three and a half times those in 1916. A part of both these increases is attributable to prices, and a part to growth of the economy. But in each case much of the increase represents a higher level of expenditures after the war than before it. Bigger veterans' programs and more interest charges were factors in this higher level. But in this case the enlarged military establishment was a more important factor than after World War I. The average size of the armed forces during 1946-49 was more than 700 per cent above that during the decade 1924-33. And while average federal civilian employment during these four years was some 300 per cent above that in 1924-33, the higher level of civilian employment reflected in part the growth of the military establishment—defense agencies accounted for more than 40 per cent of civilian employment in 1949.<sup>9</sup>

The expenditure figures in Table 5 can be used in combination with data on the payrolls of the armed forces and on international aid to provide still another comparison, a comparison of the ratio of war costs other than aid and armed forces payroll. This provides a measure of an important sense in which the second world war was more expensive than the first. The ratio increased from 3.8 to 4.4. Presumably the increase reflects in part a general upward trend in cost; but apparently, too, war cost in the sense here measured increases with the scale of the war effort. The corresponding ratio for the Korean War was 1.8.<sup>10</sup>

For the last three periods covered by Table 6 the ratio of federal international aid to GNP is shown. The Commerce Department counts such aid as a federal GNP expenditure. Column 5 therefore reports a component of column 3; in all three periods it is a substantial component. Comparable figures for 1917-20 are not available, but with the still uncollected loans made during these years counted as cash grants the ratio of international aid to total nonfinancial expenditures was

<sup>8</sup> The figures used in the denominators of these ratios are the estimates prepared by Simon Kuznets for the series of monographs of which this is one. The denominator for 1918 is the average of two calendar year figures, the numerator is a fiscal year figure.

<sup>9</sup> *1950 Handbook of Labor Statistics*, p. 27.

<sup>10</sup> For the payroll figures see W. I. King, *The National Income and Its Purchasing Power*, p. 364, and the National Income and Product Accounts. For the figures on military grants during World War II and the Korean War see *International Transactions of the United States during the War, 1940-1945*, p. 218, and *1955 Statistical Abstract*, p. 890. World War I grants were assumed to be \$9.6 billion. See Table 49. The numerator of the ratio was taken to be the increment above the base year rate in the total expenditure during the war period other than expenditure for military payroll minus the amount of aid. The denominator was taken to be total payroll of the armed forces during the war period. The base years were 1916, 1939, and 1949; the war periods 1917-21, 1940-44, and 1950-54.

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undoubtedly substantially higher in 1917-20 than in 1940-45—that is, more of our participation in World War I took this form.

In 1949 and 1950 total nonfinancial expenditures stepped up sharply, reflecting another augmentation of the military program and to a lesser extent enlarged international aid in 1949<sup>11</sup> and a special veterans' life insurance dividend in 1950. But in these two years taken together there was a slight nonfinancial surplus. There was also a slight surplus in 1951. Between 1950 and 1953 total nonfinancial expenditures increased more than 70 per cent, chiefly as a result of expanded national security programs (including the carrying on of the Korean War). Decreased war and other national security expenditures made possible a drop of over \$5 billion in nonfinancial expenditures during the next calendar year. Indeed, the drop would have been substantially larger were it not for the fact that social insurance benefits, state withdrawals from the Unemployment Compensation Fund, and tax refunds together increased by more than \$2.5 billion from 1953 to 1954.

During the four years ending with 1952 the federal net debt decreased by about \$600 million despite the Korean War. But in the next two years it increased by some \$9 billion.

In Chapter II we distinguished the nonfinancial deficit shown in Table 5, the budget deficit, and two other federal deficit concepts. Table 7 gives a comparison of the budget and the nonfinancial computations that covers the entire period during which the factors responsible for the differences between them—chiefly cash surpluses of social insurance funds and changes in government credit—have been important.<sup>12</sup> Most of the time the deficits in column 1 have been smaller (or the surpluses larger) than those in column 2.

When the government extends credit—adds to its portfolio of loans and securities—the addition often counts as a budget expenditure; when it liquidates its portfolio, the liquidation may count as a budget receipt. Column 1 treats all portfolio additions and liquidations as financial transactions; that is, they do not affect the nonfinancial deficit. In an algebraic sense column 2 was larger than column 1, 1918-21, because of portfolio additions. The bulk of these were loans to railroads and War Finance Corporation loans. But the farm credit program which got under way in 1917 was also a factor. And in 1921 the government accepted over \$100 million of securities in part payment for war surplus property.

<sup>11</sup> Loans to other governments after World War II, unlike those during and after World War I, are treated as loans in Table 5; that is, they are not nonfinancial expenditures.

<sup>12</sup> Strictly speaking there was no budget deficit concept for the earlier years of this table. The basis used in column 2 is the same as that used in *Historical Statistics*. See the note on surplus and deficit concepts appended to Chapter I for a discussion of the development of the budget concept.



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TABLE 7

Comparison of the Federal Nonfinancial Deficit with the  
Budget Deficit, 1917-54  
(millions of dollars)

	Nonfinancial Deficit (1)	Budget Deficit (2)
<i>Fiscal year</i>		
1917	800	853
1918	8,680	9,032
1919	12,880	13,363
1920	-380	-291
1921	-980	-509
1922	-600	-736
1923	-620	-713
1924	-960	-963
1925	-640	-717
1926	-1,000	-865
1927	-1,140	-1,155
1928	-880	-939
1929	-840	-734
<i>Calendar year</i>		
1929	-1,250	-912
1930	-1,000	-409
1931	1,500	1,632
1932	1,400	2,899
1933	2,000	2,543
1934	3,450	4,064
1935	2,950	2,854
1936	5,000	4,206
1937	<sup>a</sup>	1,888
1938	1,200	2,670
1939	2,450	4,300
1940	2,200	3,934
1941	9,700	11,762
1942	40,800	41,461
1943	52,900	55,691
1944	50,800	53,650
1945	36,800	43,594
1946	-5,000	2,512
1947	-10,800	-2,434
1948	-9,900	-5,241
1949	-500	3,592
1950	300	422
1951	-700	3,358
1952	300	5,842
1953	6,700	9,157
1954	2,300	3,683

<sup>a</sup> Less than \$50 million.  
Figures in column 2 are on the same basis as those in *Historical Statistics*.

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Sometimes the budget deficit has been the smaller of the two computations. This was true in 1923 and 1925 when the government credit that had been extended during 1918–21 was contracted.<sup>13</sup>

The sharper step-up in the budget deficit figure in 1932 reflects the Treasury's subscription of \$500 million to the capital stock of the Reconstruction Finance Corporation plus nearly \$500 million of loans to the RFC in that year. In 1937 social insurance funds' cash surpluses began to be a substantial factor making for a lower nonfinancial deficit. Surpluses of nearly \$1.5 billion in that year help to explain why during 1936–37 the decrease in column 1 gives a better indication of the fiscal impact on the economy than does that in column 2.<sup>14</sup>

Throughout the 1940's the cash surpluses of the social insurance funds averaged nearly \$3 billion annually. Hence much of the difference between the two deficit series during these years. But the spread widened toward the end of the decade, reaching a peak of over \$8 billion in 1947. The greater width of the spread, 1946–49, was largely due to the portfolio transactions counted as budget expenditures, among them subscriptions of capital to the Export-Import Bank, the International Bank for Reconstruction and Development,<sup>15</sup> and the International Monetary Fund,<sup>16</sup> the British loan, lend-lease credits, credits to finance sales of surplus property overseas,<sup>17</sup> and European Recovery Program credits.

### *2. State and Local Government Receipts, Expenditures, and Deficits*

Table 8 gives nonfinancial sources and uses of state and local government funds beginning in 1910. During the first three or four years of the period covered deficits were small. Judging from Table 1 they must have averaged around \$100 million per year between 1890 and 1913. But they show an upward trend from 1910 to the early 1920's. During the three years 1914–16 less than one-eleventh of the expenditures were deficit financed; during 1921–23 nearly one-seventh. The heavier deficits in the early 1920's reflect the particularly rapid increase in expenditures during these years. The growth of receipts seems not to have been much checked by the postwar business recession. Although construction expenditures were low during World War I and stepped up sharply thereafter, they

<sup>13</sup> An increase in federal accounts payable works in the same direction. Thus in 1942, when there was a large increase in such payables, the excess of column 2 over column 1 was substantially reduced.

<sup>14</sup> Column 1 gives a better indication in part also because column 2, reflecting the effect of a technical accounting procedure on the timing of expenditures, shows the payment of a part of the 1936 veterans' bonus as if it had been made in calendar 1937.

<sup>15</sup> A part of these two subscriptions was carried as a trust account expenditure.

<sup>16</sup> See footnote 14.

<sup>17</sup> Such sales were not counted as budget receipts when the sales were made.

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TABLE 8  
 State and Local Government Nonfinancial Receipts,  
 Expenditures, and Net Deficit, 1910-54  
 (millions of dollars)

Year	Receipts	Expenditures	Deficit
THREE-YEAR MOVING AVERAGES			
1910	1,950	2,000	50
1911	2,100	2,200	100
1912	2,200	2,300	100
1913	2,300	2,450	150
1914	2,350	2,600	250
1915	2,450	2,750	300
1916	2,600	2,750	150
1917	2,800	3,000	200
1918	3,000	3,250	250
1919	3,450	3,750	300
1920	4,000	4,600	600
1921	4,700	5,450	750
1922	5,250	6,100	850
1923	5,750	6,550	800
1924	6,250	7,050	800
1925	6,850	7,550	700
1926	7,500	8,100	600
1927	8,100	8,600	500
1928	8,550	8,900	350
YEARLY FIGURES			
1929	8,850	8,950	100
1930	9,150	9,700	550
1931	9,100	9,800	700
1932	8,650	8,900	250
1933	8,550	8,700	150
1934	10,050	9,750	-300
1935	10,600	10,250	-350
1936	10,000	9,900	-100
1937	11,200	11,100	-100
1938	12,500	12,400	-100
1939	13,100	13,000	-100
1940	13,900	13,500	-400
1941	14,700	13,500	-1,200
1942	15,500	13,800	-1,700
1943	15,900	13,500	-2,400
1944	16,500	13,900	-2,600
1945	17,400	14,900	-2,500
1946	19,800	17,900	-1,900
1947	22,700	22,000	-700
1948	25,900	26,300	400
1949	29,400	30,400	1,000
1950	31,900	33,500	1,600
1951	34,700	35,600	900
1952	37,500	37,900	400
1953	40,000	40,400	400
1954	43,000	44,400	1,400

SOURCE: See Appendix A.

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appear to have contributed only a small part of the total expenditure increase.

One reason for the larger recourse to borrowing during 1909-29 than in the 1890's is suggested by Table 9. State and local expenditures were growing more rapidly than gross national product. However, this explanation is subject to a possible qualification. A large part of the borrowing

TABLE 9  
A Comparison of State and Local Government Nonfinancial Expenditures to Gross National Product

Annual Average of GNP (billions of dollars) (1)	<i>Ratio of Total Nonfinancial State and Local Expenditures to Col. 1</i>	<i>Ratio of State and Local GNP Expenditures to Col. 1</i>	<i>Ratio of Transfer-type State and Local Expenditures to Col. 1</i>	<i>Ratio of State and Local Enterprise Payrolls to Col. 1</i>
	(per cent) (2)	(per cent) (3)	(per cent) (4)	(per cent) (5)
KUZNETS ESTIMATES				
1890	12.4	4.6 <sup>a</sup>		
1909-18	40.12	6.3		
1914-23	61.90	6.6		
1919-28	81.20	8.2		
1924-33	79.13	10.9		
1929-38	69.95	14.2		
COMMERCE DEPARTMENT ESTIMATES				
1929-38	77.9	12.7		
1930-39	76.7	13.5	9.2	0.23
1940-45	168.8	8.2	4.6	0.18
1946-48	234.5	9.6	5.5	0.20
1949-50	270.0	11.6	7.0	0.22

<sup>a</sup> The state and local expenditure figure used in computing this percentage is the total shown in the Census.

NOTE: Columns 3, 4, and 5 are based on Department of Commerce income and product estimates. Transfer-type expenditures include transfer payments plus gross interest.

was by urban communities and took place during the 1920's, when the percentage of national income originating in industries other than agriculture was significantly larger than during 1890-1919.<sup>18</sup>

A striking feature of Table 8 is that there is no clear evidence of cyclical variation in receipts prior to 1931. This may well be due in part to inadequacies in the figures,<sup>19</sup> but property taxes which are somewhat

<sup>18</sup> See *Historical Statistics*, A-145. Martin's estimates indicate an increase from about 83.5 per cent to more than 87 per cent.

<sup>19</sup> This statement holds for the annual figures as well as the three-year moving averages. Especially prior to 1929—but to some extent after 1929 also—the basic compilations used in arriving at the annual figures are totals of data for individual units of government that refer to different fiscal years. See note on Table 8 in Appendix A.

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inflexible cyclically accounted for more than 60 per cent of receipts in 1913 and rather more than half of them in 1932. (See Table 13 below.)

The recession years 1930–31 saw a sharp increase in expenditures; there were large deficits in these two years. But expenditures were contracted more rapidly than receipts during 1932–33. And in 1934 the increase in receipts was sufficient to produce a surplus despite additional—and in part depression connected—expenditures. A major factor in this improved financial showing was federal aid. It was \$0.5 billion in 1933; over \$1.6 billion in 1934.<sup>20</sup> Higher taxes played a relatively small part; but the ratio of property taxes to assessments in large cities did increase from 26 mills in 1933 to nearly 30 in 1934.<sup>21</sup> Notwithstanding year-to-year variations in expenditures there were, beginning in 1934, surpluses throughout the rest of the decade.

While the contraction in expenditures in 1932–33 exerted a cyclically perverse effect, it was not a very large one. And against this contraction might be set the fact that the level of state and local expenditures was substantially higher in the decade 1929–38 than in the preceding decade. Moreover, the ratio of these expenditures to gross national product rose substantially. It is reasonable to infer from Table 9 that this ratio during the 1930's was significantly above trend.

During the six years 1939–44 total expenditures were somewhat stable. Costs rose, employment declined slightly, and expenditures on construction and on various equipment items were sharply curtailed. The ratio of total expenditures to gross national product dropped back at least to the level it had reached in the 1920's. At the same time tax yields as well as enterprise revenues and receipts from service charges grew, while total federal aid was not greatly diminished. All nonfinancial receipts were some 26 per cent higher in 1944 than in 1939. Hence the large wartime surpluses.

The sharp step-up in expenditures after World War II, much sharper than that after World War I, began during 1945. By 1954 expenditures were nearly 3.3 times the 1939–44 average. New construction accounted for almost a quarter of this increase, but nearly every significant type of expenditure contributed to it. However, despite the size of the increase the ratio of total state and local expenditures to gross national product was lower in 1954 than it had been during the 1930's. Despite the sharpness of the increase, too, there were surpluses in 1946 and 1947, and the percentage of total expenditures that was deficit financed was markedly lower in 1949–54 than in the early 1920's. Increases in enterprise revenues and receipts from service charges as well as in tax yields contributed to a growth in total receipts that kept the deficit financing percentage below

<sup>20</sup> National Income and Product Account figures.

<sup>21</sup> *Historical Statistics*, P-251 and P-262.

3 per cent. Federal aid also contributed to the growth in receipts; it was about \$1 billion in 1944, \$4.9 billion in 1954.<sup>22</sup>

The contrast between the growth of debt during and after World War I and that during and after World War II is marked. At the end of 1929 the net indebtedness of state and local governments was approximately \$11 billion; at the end of 1954 only \$8 billion, despite the vastly higher level of expenditures in the years preceding this latter date. To some extent this contrast results from the surpluses during World War II. Participation of our economy in World War I was neither sufficiently extensive nor sufficiently prolonged to yield comparable surpluses. The rest of the contrast is due to the more rapid growth of net debt after World War I—by \$6.5 billion in the eleven years ending 1929, by \$3.5 billion in the nine years ending 1954. We think the relatively small amount of net borrowing after World War II, despite the sharpness of the expenditure step-up, reflects in part the fact that the ratio of expenditures to GNP continued even up to 1954 to be lower than it had been in the 1930's. Hence a close approach to pay-as-you-go financing was not too difficult, so far as tax and service charge increases were concerned. But the larger volume of federal aid was a factor, too. We will give this point further attention in Chapters IV and V.

### 3. *Trends in Receipts, Expenditures, and Employment*

Thus far we have been mainly concerned with year-to-year changes in the sources and uses of government funds, and our analysis has emphasized aggregate nonfinancial sources and uses and annual deficits. It seems advisable, too, to consider the longer-term changes that have been taking place in recent decades, giving particular attention to the composition of total nonfinancial receipts and expenditures and supplementing our expenditure analysis with an analysis of government employment.

As before let us take the federal government first.

Table 10 analyzes longer-term changes in federal nonfinancial receipts. The principal tax sources in 1890 were customs duties and liquor and tobacco excises; postal revenues accounted for a little more than an eighth of nonfinancial receipts. Customs reached a peak in 1927 that has not quite been equaled since. While liquor and tobacco taxes increased more than tenfold in 1916–50, they have grown much less rapidly than total receipts.<sup>23</sup> And while postal revenues kept pace with other sources of funds in 1890–1929, they have not done so since. In 1950 they were less than 4 per cent of the total.

Corporate and personal income and estate and gift taxes were relatively unimportant in 1916. The Payne-Aldrich Act (1909) had established

<sup>22</sup> Including Unemployment Compensation Fund withdrawals.

<sup>23</sup> Liquor tax collections were of course negligible in 1921–32.

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TABLE 10

Federal Nonfinancial Receipts, Selected Years, 1890-1950  
(millions of dollars)

	1890	1916	1929	1940	1950
A. Customs duties	230	213	600	330	550
B. Personal income taxes	0	68	1,240	1,040	18,500
C. Estate and gift taxes	0	0	60	340	650
D. Corporate income and capital stock taxes	0	57	1,250	1,400	9,900
E. Liquor and tobacco taxes	142	335	460	1,370	3,750
F. Taxes on petroleum products, automotive vehicles and parts	0	0	0	430	1,550
G. Miscellaneous taxes, fees, and fines	16	70	110	320	3,025
H. Social insurance taxes	0	0	0	880	3,425
J. State payments into Unemployment Compensation Fund	0	0	0	860	1,225
K. Insurance premiums	0	1	95	180	1,025
L. Interest and dividends	<sup>a</sup>	1	300	400	525
M. Postal revenues	61	312	695	760	1,725
N. All other, including property sales, and miscellaneous enterprise receipts	11	23	140	290	3,250
P. Total nonfinancial receipts	460	1,080	4,950	8,600	49,100

<sup>a</sup> Included with "All other" receipts.

NOTE: Figures for 1890 and 1916 refer to fiscal years; those for 1929, 1940, and 1950 to calendar years. They are based on *Treasury Annual Reports*. "Insurance premiums" include government life insurance premiums, federal civilian employee retirement contributions, and guaranty and insurance premium receipts of government corporations and business-type activities. The "Interest and dividends" item is net of interfund interest receipts on federal obligations.

the corporate tax; the Underwood Act, passed shortly after the ratification of the 16th Amendment in 1913, inaugurated the individual income tax; the inheritance tax did not apply until 1917.<sup>24</sup> But in 1929 these taxes accounted for more than 50 per cent of total nonfinancial receipts; in 1950 for nearly 60 per cent. Although personal incomes taxes decreased in 1929-40 and corporate tax collections grew by only 15 per cent, the yield of estate and gift taxes increased nearly sixfold in this period.

Social insurance premiums paid by veterans and civilian employees amounted to only \$95 million in 1929. Such premiums together with payroll taxes and state contributions into the Unemployment Compensation Fund in 1940 totaled about \$1.9 billion—the general federal social insurance program had gotten under way in 1937; in 1950 some \$5.7 billion of nonfinancial receipts came from these sources.

Miscellaneous excise taxes were an important revenue source after the

<sup>24</sup> An individual income tax levied in 1894 was held unconstitutional. An inheritance tax was levied in 1898 as an emergency measure.

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Spanish-American War and during World War I. This source was tapped again during the 1930's and World War II. In 1950 it (lines F and G) yielded more revenue than customs duties and liquor and tobacco taxes combined. The two largest components of the \$3,025 million recorded on line G—transportation and telephone taxes—accounted for about 40 per cent of this amount.

It is difficult to present a detailed analysis of total nonfinancial federal expenditures on a comparable basis for a sixty-year span. It is offered here in two stages in Tables 11A and 11B. In 1890 apart from the Post Office the large items were veterans' programs, the military establishment, and interest. These three categories of expenditure—all three may be characterized as war-connected—accounted for 58 per cent of the total in that year. Between 1890 and 1916 their proportionate importance decreased; but World War I substantially restored it. They were responsible for 55 per cent of all nonfinancial expenditures in 1929. Table 11B shows a similar sequence, if we include international aid. The ratio of the total of lines A, B, C, and E to line P is 52 per cent in 1929, 35 per cent in 1940, and 54 per cent in 1950.

In a general way we may think of lines F, G, H, and K in Table 11A as reflecting long-established nonwar types of governmental activities. These items represented nearly 8 per cent of all expenditures in 1890; only about 3.5 per cent in 1929. The civilian nondefense payroll figures in Table 11B cover a somewhat wider range of activities; but they indicate that the declining relative importance of the older activities continued in 1929-50. The ratio of line M to line P drops from 10.5 per cent to 5 per cent. One long-established function not included in these ratio comparisons is the Post Office. The postal expenditures ratio increased from 18 per cent in 1890 to 30 per cent in 1916. But by 1950 it too had declined to less than 5 per cent.

The larger programs reflected in line D of Table 11A are: rivers and harbors, the Panama Canal (especially in 1916), public roads grants-in-aid, and aid to the merchant marine (the last two of these became important during the 1920's). Public roads grants represent five-sixths of the \$0.12 billion shown on line J of Table 11B. While such grants were larger in 1940 and still larger in 1950, they were only a fraction of all grants in these years. The Social Security Act (1935) inaugurated programs that currently account for well over half of aid and transfers. The figures on line J include withdrawals from the Unemployment Compensation Fund. Grants-in-aid proper, exclusive of these withdrawals, totaled \$0.86 billion in 1940—more than 40 per cent of the amount being for public assistance, public health, and employment security<sup>25</sup>—and \$2.34 billion in 1950, over half of this

<sup>25</sup> Grants for administration of unemployment insurance and for employment exchanges.



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for the social security programs. In 1940, too, depression emergency relief grants were still a substantial item. So were work relief wages (line F). The only social insurance benefits in 1929 were those paid out of the United States Life Insurance Fund and the civil service retirement funds. Of the \$6.13 billion in 1950 over \$3 billion came from the two veterans' life

TABLE 11A  
Federal Nonfinancial Expenditures, Fiscal Years  
1890, 1916, and 1929  
(millions of dollars)

	1890	1916	1929
A. War and Navy Departments and Coast Guard	57	294	719
B. Interest on direct debt <sup>a</sup>	56	23	678
C. Veterans' programs	110	161	742
D. Programs for improving transportation	15	66	218
E. Post Office	68	308	825
F. Congress, Department of Justice, and courts	11	17	40
G. State Department	2	6	13
H. Collecting revenues	11	17	54
J. Tax refunds	7	19	213
K. Indian Affairs	7	18	34
L. Agriculture Department	2	23	56
M. Forestry and reclamation services and national parks	<sup>b</sup>	11	32
N. Public buildings	5	18	51
P. All other	29	59	205
Q. Total nonfinancial expenditures	380	1,040	3,880

<sup>a</sup> Includes premium on purchase of bonds of \$20.3 million in 1890 and \$1.3 million in 1929.

<sup>b</sup> Less than half a million dollars.

NOTE: See last note to Table 11B.

insurance funds (mostly special dividends); \$1.43 billion from the Unemployment Compensation Fund; and \$1.29 billion from the Old Age and Railroad Retirement Funds.

The Department of Agriculture budget was a substantial one even in 1916. But it was a smaller percentage of the total in 1929 than in 1916, despite complaints about farm surpluses during the 1920's. It is not easy to summarize the agriculture programs since 1929. Farm benefit payments totaled some \$4 billion during the eight years ending 1940. Commodity purchases were apparently a considerably smaller item during this period than such payments. But they were much larger in 1950.<sup>26</sup> Loan write-offs are not a nonfinancial expenditure, but they are part of the

<sup>26</sup> The Commodity Credit Corporation accounts for most, but not all, of such purchases. In 1950 its receipts from sales were about five-sixths of the cost of goods sold.

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cost of the agriculture programs. In 1950 such write-offs by the Commodity Credit Corporation totaled only a little over half a million.

Nondefense construction and miscellaneous procurement, line N in Table 11B, includes the rivers and harbors and reclamation programs as well as public buildings. Total construction represents about 38 per cent

TABLE 11B  
Federal Nonfinancial Expenditures, Calendar Years  
1929, 1940, and 1950  
(billions of dollars)

	1929	1940	1950
A. International aid <sup>a</sup>	0.00 <sup>b</sup>	0.03	4.30
B. Other national security	0.69	2.17	13.92
C. Interest	0.69	1.09	4.37
D. Social insurance benefits	0.04	0.84	6.13
E. Transfer payments to veterans	0.54	0.50	4.28
F. Work relief payrolls	0.00	1.58	0.00
G. Farm benefits	0.00	0.72	0.28
H. Commodity Credit Corporation, cost of goods sold	0.00	<sup>b</sup>	2.01
J. State and local aid and transfers	0.12	1.38	3.50
K. Tax refunds	0.20	0.10	2.13
L. Post Office operating expense	0.79	0.82	2.28
M. Civilian nondefense wages and salaries <sup>c</sup>	0.39	0.80	2.44
N. All other <sup>d</sup>	0.24	0.77	3.76
P. Total nonfinancial expenditures	3.70	10.80	49.40

<sup>a</sup> Does not include loans.

<sup>b</sup> Included with "All other."

<sup>c</sup> Does not include Post Office.

<sup>d</sup> Essentially procurement and construction, n.e.c.

NOTE: The reader may wish to compare this table with the rather more detailed functional classification of federal expenditures Fabricant presents for six selected years, *op.cit.*, Table 16. We have attempted to analyze total nonfinancial expenditures here. In fiscal 1949 the total of such expenditures was approximately \$45 billion (average of two calendar year figures in Table 5 above); the expenditure total for that year in Fabricant's table is \$35.96 billion.

of this item in 1950: conservation and development construction about 23 per cent.<sup>27</sup>

In 1913 federal payrolls were about 45 per cent of total nonfinancial expenditures; in 1950 they were just under 25 per cent.<sup>28</sup> Table 12 shows the growth of federal employment since 1900. The legislative and judicial branches of the government accounted for 1.3 per cent of all federal employees in 1900, only a little over 0.3 per cent in 1950. The military establishment represented 53 per cent of the total in the former years,

<sup>27</sup> New construction only.

<sup>28</sup> See Fabricant, *op.cit.*, for the 1913 estimate of payrolls. For 1950 see *Flow of Funds in the United States, 1939-1953*, Table 17.

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67.5 per cent in the latter. The ratio of civilians in the establishment to the armed forces increased from 1:3.1 to 1:2.1 during the half-century. What may be called the executive civil service proper, line E, was about the same proportion of the total in 1950 as in 1900, 17 per cent. The enterprise employment proportion declined from 28 per cent in 1900 to 15 per cent in 1950.

TABLE 12  
Federal Employment at Selected Dates, 1900-50  
(thousands of persons)

	1900	1910	1920	1930	1940	1950
A. Legislative and judicial	4	6	6	6	8	12
B. Armed forces	126	140	344	261	549	1,694
C. Civil national defense	40	58	237	116	276	798
D. Enterprises	89	163	195	300	385	560
E. Other civil.	53	117	175	198	369	628
F. Total	312	484	957	881	1,587	3,692

NOTE: These figures are on a full-time equivalent basis. They exclude work-relief employees and, beginning 1930, civil employees stationed abroad. Line D, 1900-20, covers only postal employees.

Table 13 analyzes longer-term changes in the nonfinancial receipts of state and local governments. In 1890 property taxes accounted for some 90 per cent of all local taxes and for 70 per cent of state taxes. Four-fifths of all nonfederal taxes went to local governments. None of the present main nontax sources of current receipts was of much consequence. By 1939 state taxes had become more important than local taxes. One factor that helped to bring this change about was the establishment of unemployment insurance; this meant state payroll taxes. Another factor was the growth of state aid; to some extent states collected taxes so local governments could spend. Larger state taxes do not imply larger state employment. There were somewhat more than twice as many local as state nonschool employees in 1950.

State property taxes increased gradually in 1890-1950, but the ratio of these to total state taxes has steadily declined. By 1913 this ratio was hovering around the 50 per cent mark. States were taxing various things including mortgages and securities, banks and insurance companies, railroads and utilities. And they were beginning to levy motor vehicle and operator's license taxes and income and inheritance taxes. Gasoline taxes came a few years later. In 1932 taxes on motor vehicle fuel sales were the largest single source of state tax receipts; and vehicle and operator licenses yielded more than state property taxes. In 1942 payroll taxes represented 23 per cent of the \$5.03 billion total. Motor fuel taxes were the second

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largest item. But general sales and receipts taxes had come to be a very substantial source of tax receipts. These and income taxes each accounted for about one-eighth of the \$5.03 billion. The yield of taxes on alcoholic

TABLE 13  
State and Local Government Nonfinancial Receipts,  
Selected Years, 1890-1950  
(billions of dollars)

	1890	1913	1932	1942	1950
A. State property taxes	0.07	0.14	0.32	0.27	0.31
B. State sales and gross receipts taxes	<sup>a</sup>	<sup>a</sup>	0.55	2.22	4.67
C. State unemployment compensation taxes	0.00	0.00	0.00	1.16	1.23
D. State income taxes	0.00	<sup>b</sup>	0.12	0.62	1.61
E. Other state taxes	0.03	0.16	0.85	0.76	1.12
F. Total state taxes	0.10	0.30	1.84	5.03	8.94
G. Local property taxes	0.37	1.28	4.25	4.28	7.07
H. Other local taxes	0.03	0.15	0.11	0.41	0.48
J. Total local taxes	0.40	1.43	4.36	4.69	7.55
K. Total tax receipts, state and local	0.50	1.73	6.20	9.72	16.49
L. Federal aid to state and local governments plus withdrawals from Unemployment Compensation Fund	<sup>c</sup>	0.01	0.13	1.23 <sup>d</sup>	3.71 <sup>d</sup>
M. State aid to local governments	<sup>c</sup>	0.09 <sup>e</sup>	0.76 <sup>e</sup>	1.79	4.01
N. State alcoholic beverage monopoly receipts and enterprise receipts of cities over 100,000	<sup>e,f</sup>	0.07 <sup>f</sup>	0.24 <sup>f</sup>	0.87	1.64
P. Employee contributions to retirement systems	<sup>c</sup>	<sup>c</sup>	0.06	0.12	0.38
Q. Interest	<sup>c</sup>	<sup>c</sup>	0.19	0.20	0.33
R. Current charges (state general governments)	<sup>c</sup>	<sup>c</sup>	0.15	0.22	0.58
S. Other nonfinancial receipts	0.09	0.35	0.92	1.15	4.76
T. Total nonfinancial receipts	0.59	2.25	8.65	15.30	31.90

<sup>a</sup> Included with other state taxes.

<sup>b</sup> Less than \$5 million.

<sup>c</sup> Included with "Other nonfinancial receipts."

<sup>d</sup> Unemployment Compensation withdrawals were \$0.34 billion in 1942 and \$1.37 billion in 1950.

<sup>e</sup> Chiefly school and highway grants. Some grants during these years cannot be separated from other state operating expenditures in the tabulations.

<sup>f</sup> No alcoholic beverage monopolies.

SOURCE: See Appendix A

beverage sales and licenses—about one-sixteenth of the 1942 total—exceeded that of property taxes. Of the 1950 total of nearly \$9 billion general sales taxes accounted for 19 per cent, income and estate taxes for 18 per cent, motor fuel taxes for 17 per cent, and unemployment compensation taxes for 14 per cent.

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For local governments property has continued to be the main object of taxation. Indeed 1913 is the only year shown in Table 13 in which other taxes amounted to more than 10 per cent of the total. But it is significant that in recent years there has been increased resort to sales taxes and other types of taxes which are essentially new revenue sources for local governments.

TABLE 14  
State and Local Government Nonfinancial Expenditures,  
Selected Years, 1915-50  
(billions of dollars)

	1915	1929	1939	1950
A. Education, operation and capital outlay	0.65	2.50	2.58	7.00
B. Highway construction and maintenance	0.46	1.99	2.29	3.64
C. Sewer and water system construction and maintenance	0.13	0.33	0.50	0.86
D. New construction (other than in A, B, and C)	0.10	0.43	0.87	1.35
E. Fire departments (cities over 25,000) and police department (states plus cities over 25,000)	0.12	0.37	0.44	0.85
F. Hospital operation (states plus cities over 25,000)	0.06	0.17	0.26	0.78
G. General control (states plus cities over 25,000)	0.09	0.24	0.32	0.58
H. State development and conservation of natural resources	0.01	0.06	0.10	0.32
J. Interest	0.24	0.78	0.75	0.62
K. Public assistance and direct and work relief	0.00	0.07	1.02 <sup>a</sup>	2.35
L. Social insurance benefits	0.04	0.07	0.59	1.75
M. Payments to veterans and miscellaneous transfer payments	<sup>b</sup>	0.08	0.09	0.68
N. State aid to local governments	0.11 <sup>c</sup>	0.65 <sup>c</sup>	1.50	4.01
P. Payments into Unemployment Compensation Fund	0.00	0.00	0.86	1.23
Q. Enterprise payrolls	<sup>b</sup>	0.18	0.20	0.61
R. Alcoholic beverages (states, cost of goods sold)	0.00	0.00	0.19	0.61
S. All other	0.74	1.03	0.44	6.26
T. Total nonfinancial expenditures	2.75	8.95	13.00	33.50
U. Total for new construction	0.65	2.25	1.67	4.98

<sup>a</sup> Excludes federally financed work relief.

<sup>b</sup> Included in "All other."

<sup>c</sup> Chiefly school and highway grants. Some grants during these years cannot be separated from other operating expenditures in the tabulations.

NOTE: The reader may wish to compare this table with the slightly less detailed functional classification of state and local government expenditures Fabricant presents for 1903 and 1939, *op.cit.*, Table 14. The total of nonfinancial expenditures which we have attempted to analyze here is \$13 billion for 1939; the expenditure total for that year in his table is \$9.11 billion.

SOURCE: See Appendix A.

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Table 14 analyzes total nonfinancial expenditures of state and local governments somewhat along functional lines; Table 15 analyzes the general government expenditures (excluding expenditures from trust and enterprise funds) by levels of government.

TABLE 15  
State and Local Government Expenditures by Level of  
Government, Selected Years, 1890-1950

	1890	1902	1913	1932	1942	1950
MILLIONS OF DOLLARS						
A. All state and local governments	560	1,070	2,190	9,235	11,880	28,750
B. All state and local governments excluding interunit aid	560	1,016	2,103	8,406	10,034	24,580
C. States	72	182	378	2,734	5,558	12,907
D. Local governments in larger communities	488	330	672	2,455	2,690	5,380
E. Local governments in smaller communities						
AS A PERCENTAGE OF ALL STATE AND LOCAL GOVERNMENT EXPENDITURES						
F. State expenditures	12.9	17.0	17.3	29.6	46.7	45.0
PER CAPITA EXPENDITURES IN DOLLARS						
G. Local units in larger communities	—	21.40	30.40	66.80	68.50	121.00
H. Local units in smaller communities	—	8.75	15.55	46.00	37.70	98.30
J. State and local units excluding interunit aid	8.90	12.80	21.60	69.50	74.30	162.00

NOTE: Lines D and G refer to cities of over 100,000 population, 1902-42. For 1902-32 the census tabulations on which these figures are based include the computed portions of the expenditures of overlying counties and school and special districts. The 1942 figure here used is that for the city corporations raised on the basis of data for 1940. The 1950 figure is based on the percentage change, 1942-50, for cities of over 25,000 population. See Appendix A.

In 1929 total state and local expenditures were somewhat more than three times what they had been in 1915. State aid increased sixfold, and expenditures on highway and miscellaneous construction (lines B and D in Table 14) quadrupled. The percentage increase in education expenditures was nearly that large. Other items showing large increases were: fire and police departments, hospital operation, transfer payments to veterans, and state development and conservation of natural resources.

In general, during the 1930's the growth of those expenditures that had previously been expanding most rapidly was somewhat checked. Particularly was this true of education. The case of highways is a less striking example; highway construction expenditures increased by some

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10 per cent. But there was one expenditure program that had previously been expanding that was not checked by the depression. State grants-in-aid stepped up sharply—just how sharply cannot be precisely determined from available compilations of financial data.

On the other hand four items that were either small or zero in 1915 became of considerable importance during the 1930's: public assistance and direct and work relief, social insurance benefits, payments into the Unemployment Compensation Fund, and cost of goods sold by alcoholic beverage monopolies. By 1939 the main component of line K was special assistance to the aged, to the blind, and to dependent children, financed in part by federal aid under the Social Security Act (1935). And the main component of line L was unemployment compensation (financed by withdrawals from the Unemployment Compensation Fund). But civil service pension payments doubled during the decade 1929-39.

Presumably many expenditures that were held in check during the 1930's did not have time to expand fully before they were checked again by World War II. Hence the backlogs that help to explain the greater postwar expansion. In 1950 every expenditure category shown in Table 14 except interest was substantially above the 1939 level. The increase in expenditures on construction and at least in part those on education, fire and police departments, hospitals, and conservation and development reflect accumulated backlogs. But there were very large percentage increases in several nonbacklogs items: payments to veterans, social insurance benefits, public assistance, and enterprise operating expenses.

Between 1915 and 1950 state and local government expenditures expanded somewhat more than tenfold. But among the old established programs education is the only one identified in the table that showed such an increase. If we count state grants-in-aid and social insurance benefits (these consisted exclusively of civil service pensions in 1915) as new programs, it is the new programs that were responsible for the bulk of the increase in the total.

The expansion of functions is reflected in Table 15 as well as in Table 14. However, a substantial part of the increase in the relative importance of state expenditures indicated by line F is, as already noted, a reflection of the marked growth of state grants. In 1950 approximately 31 per cent of the \$12.9 billion of state general government expenditures (i.e. expenditures other than those of state enterprises and trust funds) was for aid to local governments. Lines D and E attempt to apportion the general expenditures of local government units of all kinds between the larger urban communities—or rather the parts of such communities located inside the municipal corporate limits of larger cities—and the rest of the United States. When these local government outlays are put on a per capita basis the result is a striking one. In 1902 expenditures

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per person in the smaller communities were only a little more than 40 per cent of those in places of over 100,000 population. Since then, except during 1932-42, the disparity between the two groups of communities has been narrowing. The ratio of line H to line G in 1950 was 81 per cent.

State and local per capita government expenditures were small in 1890. Even with a generous allowance for the rise of prices they increased

TABLE 16  
State and Local Government Employment at Selected  
Dates, 1900-1950  
(thousands of persons)

	1900	1930	1940	1950
A. School	467	1,110	1,228	1,430
B. State nonschool	68	280	456	673
C. City, village, and town nonschool	194	706	752	959
D. County nonschool	123	347	286	377
E. Other nonschool			158	177
F. Total (lines A + B + C + D + E)	852	2,443	2,880	3,616
G. Enterprises	40	116	146	184
H. Firemen (fire department)	15	73	78	110
J. Law enforcement officers	48	150	152	197
K. Other than A, G, H, and J	282	994	1,276	1,695
L. Total nonschool (line F - line A = lines G + H + J + K)	385	1,333	1,652	2,186

NOTE: Figures are on a full-time equivalent basis. They exclude work relief. Line J includes policemen, detectives, marshals, sheriffs, and constables.

fivefold or sixfold during the following sixty years. If local government services were somewhat concentrated in the cities at the turn of the century, by 1950 they had come to be not so far from evenly distributed between larger and smaller communities.

The table does not show the general government expenditures of counties and of school and other special districts. County general expenditures were about one-fifth of the total shown on line B in 1890; about one-seventh in 1950. School and special districts were of little consequence in 1890. In 1950 the expenditures of these units that were assuming functions previously performed by counties, cities, towns, and villages were about 22 per cent of the \$24.6 billion total shown on line B.

In 1913 payrolls were about 37 per cent of all state and local non-financial expenditures; in 1950 about 31 per cent.<sup>29</sup> Table 16 analyzes the growth of state and local government employment. A comparison of lines C and L in Table 16 confirms the decline in the relative importance of cities. They represented 50 per cent of the nonschool total in 1900,

<sup>29</sup> For payrolls in 1913 see Fabricant, *op.cit.*, pp. 228-34. For 1950 see *Flow of Funds in the United States*, Table 23.



45.5 per cent in 1940, and 43.7 per cent in 1950. On the other hand the relative importance of states, as measured by the ratio of line B to line L, increased from 17.5 per cent to 30.5 per cent during the half-century. School employment was nearly 55 per cent of the total (line F) in 1900, 40 per cent in 1950. The rapid growth in number of firemen in 1900–1930 suggests that paid employees were replacing volunteer workers. No doubt this was true also of other categories of employment for which we lack detailed information. During the 1930's the percentage increase in numbers of firemen and law enforcement officers appears to have been somewhat smaller than that in total nonschool employment. Between 1900 and 1950 the relative importance of enterprise employees declined from 10.4 per cent of line L to 8.4 per cent.

#### 4. *Summary*

Our historical review of changes in the sources and uses of government funds in recent decades does not give us a complete answer to the question of why governments have engaged in deficit financing as much as they have. But it provides a good deal of significant background information for dealing with this question and it suggests several pertinent propositions.

Total nonfinancial expenditures have greatly increased during the past sixty-odd years, reflecting the expansion of government functions. Government functions have grown more rapidly than the rest of the economy. In the 1890's government nonfinancial expenditures were something like 8 per cent of gross national product; in the relatively peaceful recent years 1946–50 they were about 28 per cent of that product.<sup>30</sup>

During the last twenty years of the nineteenth century, government nonfinancial receipts must, on the average, have roughly matched government nonfinancial expenditures. During 1946–50 receipts were slightly larger than expenditures. It seems reasonable to say that, on the whole and apart from the major step-ups in federal expenditures during the two world wars and the depression of the 1930's, it was possible approximately to match the sharp upward trend in government expenditures in the last five or six decades with an upward trend in tax revenues and other nonfinancial receipts.

The increase in receipts meant recourse to a wide variety of new nonfinancial sources of funds. The federal and state governments have come to rely largely on types of taxes that were of little or no consequence in 1890. And local governments are currently exploring new forms of

<sup>30</sup> For the earlier ratio see Tables 6 and 9. The numerator of the 1946–50 ratio is total expenditures, Tables 5 and 8, minus federal and state aid and Unemployment Fund withdrawals. The denominator is from the special compilation made by Simon Kuznets for the series of monographs of which this is one.

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taxation. In part, also, the expansion of functions has been financed on a *quid pro quo* basis—through service charges, enterprise revenues, and nontax (as well as tax) social insurance premiums. More and more, too, state and local governments have come to rely on grants-in-aid as a means of financing some of their expenditures.

Broadly speaking, the two world wars and the depression of the 1930's that so greatly increased the federal debt had a somewhat opposite effect on state and local debts. While there was some net state and local borrowing during World War I, the rate of borrowing seems to have been retarded. And between 1929 and 1939 state and local net debt increased by only about 6 per cent. Then during World War II net state and local debt was reduced to a negligible amount. Even in 1950 it was less than it had been before World War I.

This negative relationship is one reason for suggesting that government financial requirements are in a sense an organic whole—that there is need to consider the requirements of all the various levels of government together.

Another reason for suggesting joint consideration is that there have been changes in the allocation of functions among the different levels and in the allocation of the responsibilities for financing government functions. Thus school and special districts have taken on functions formerly performed by other local government units. And there has been a marked growth in both federal and state aid programs. We will examine these developments further in Chapter V.

The point that stands out most prominently in our analysis of year-to-year changes in nonfinancial sources and uses of funds is the impact of sharp and substantial changes in the latter on deficits. Particularly in the case of the federal government the lagging adjustment of tax rates and other means of meeting nonfinancial expenditures helps to explain not only wartime and depression deficits but also the surpluses of the 1920's. Something has been done to reduce the lag by technical improvements in tax procedures, most importantly by putting the individual income tax on a pay-as-you-go basis. But we will need to inquire into other factors making for the lag in Chapter VIII.

Lags in tax increases are explanations of deficits that run in terms of the mechanics of fiscal procedures. Sharp increases in nonfinancial expenditures may bring deficits, too, for what may be called substantive political reasons. At all events, when government expenditures grow faster than the GNP, governments are likely to have to resort to deficit financing. And contrariwise, when receipts grow with a general expansion in personal income and business volume and with but little change in tax rates, while expenditures do not grow rapidly enough to use up all of these receipts—this was the case with state and local governments during World

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War II—government debt retirement is the result.<sup>31</sup> Further, when government expenditures increase sharply, even though they include a substantial volume of construction expenditures, the amount of deficit financing may be small if the ratio of the level of nonfinancial expenditures to GNP is lower than that to which the economy has become accustomed.

We have elected to mean by deficit financing the increase in a government's net debt and by its net debt the excess of its total debt outstanding over its total financial assets. In the case of the federal government the deficit that is so financed differs from the budget deficit for two main reasons: (a) It is smaller by the amount of increases in financial assets held by social insurance funds.<sup>32</sup> (b) It is smaller by the amount of increases in other financial assets—chiefly loans to foreign governments and to private parties in this country.<sup>33</sup> In Chapter VII we will consider the growth of government financial assets, state and local as well as federal.

Two lines in Table 15 reveal a very suggestive trend. Per capita expenditures in smaller communities have been increasing more rapidly than those in larger communities, and so the levels of expenditures in the smaller communities have been catching up with the levels of the larger communities. There is a somewhat parallel development in per capita debts that we will examine in Chapter IV.

The comparisons drawn between the two world wars hint at the possibility of two pertinent trends in federal finance. One is the relatively smaller recourse during World War II to deficit financing. We will see in Chapter VIII that this actually is part of a longer-term trend. The other is the increase in the ratio of costs of munitions, nonmilitary personnel, and the like to the pay of the armed forces. Despite the fact that this ratio was only 1.8 for the Korean War, it seems quite reasonable to suppose that, when allowance is made for differences in the scale of war effort, war cost as measured by such a ratio has been trending upward.

At the start of this chapter it was noted that our historical review could be expected to turn up facts not relevant to our present purpose as well as relevant ones. Perhaps it is in order to mention two not-very-relevant facts that seem to stand out: One is the growth of the military establishment; or, since this establishment exerts a pervasive influence, it seems fair to refer to its growth as a trend toward militarization. Expenditures on the military establishment were definitely less than one-half of one per cent of gross national product in 1890; almost 5 per cent in 1950.<sup>34</sup> The other

<sup>31</sup> And something like this sequence seems to be the explanation of various surpluses during the nineteenth century. See below, Chapter VIII, Section 3.

<sup>32</sup> Or larger by the amount of decreases in financial assets held.

<sup>33</sup> See footnote 32.

<sup>34</sup> The ratio of line B in Table 11B to the Department of Commerce figure for 1950 is 4.9 per cent. (The corresponding ratio for 1957 was 9.3 per cent.) The ratio of the slightly too large figure on line A of Table 11A to the slightly netter Kuznets GNP figure for 1890 is 0.46 per cent.

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not-very-relevant fact is the upward trend in the number of different taxes. No doubt this trend reflects a series of concessions to political expediency. For from a strictly economic point of view the increase in the ratio of the volume of tax and other nonfinancial receipts to GNP—from something like 8 per cent in 1890 to 28 per cent in 1950<sup>35</sup>—is not a reason for an increase in the number of taxes, and each added tax means added collection expense and an added tax-return-making burden for taxpayers.

<sup>35</sup> The ratio of federal receipts (Table 5) plus the census figure for state and local receipts to the Kuznets GNP figure for 1890 is 8.25 per cent. The ratio of total government receipts (Tables 5 and 8) to the Department of Commerce figure for 1950 is 28.3 per cent. But compare also the comment on expenditures above. See the text accompanying footnote 30.