FEDERAL BORROWING AND DEBT

12. FEDERAL BORROWING AND DEBT

Debt is the largest legally binding obligation of the Federal Government. At the end of 2000, the Government owed $3,410 billion of principal to the people who had loaned it the money to pay for past deficits. During that year, the Government paid the public around $233 billion of interest on this debt.

After 28 consecutive years of deficits financed mainly by borrowing from the public, the Government had a $69 billion unified budget surplus in 1998. The surplus rose in the following two years, reaching $236 billion in 2000. As a result, the Government reversed the many years of debt accumulation and repaid $363 billion of publicly held debt in the past three years. The budget estimates that debt will be reduced by $236 billion this year and by a historic $2.0 trillion over the following decade. This will be a debt milestone for the nation. Under the assumptions in this budget, a larger debt reduction would be made difficult by the marketable securities that will not have matured by the end of 2011 and by the various issues of non-marketable debt that will not have matured or that serve functions that continue to be needed.

Trends in Debt Since World War II

Table 12–1 depicts trends in Federal debt held by the public from World War II to the present and estimates from the present to 2011. (It is supplemented for earlier years by tables 7.1–7.3 in *Historical Tables,* which is published as a separate volume of the budget.) As this table shows, Federal debt peaked at 108.6 percent of Gross Domestic Product (GDP) in 1946, just after the end of the war. From then until the 1970s, Federal debt grew gradually, but, due to inflation, it declined in real terms. Because of an expanding economy as well as inflation, Federal debt as a percentage of GDP decreased almost every year. With households borrowing large amounts to buy homes and consumer durables, and with businesses borrowing large amounts to buy plant and equipment, Federal debt also decreased almost every year as a percentage of the total credit market debt outstanding. The cumulative effect was impressive. From 1950 to 1975, debt held by the public declined from 80.1 percent of GDP to 25.3 percent, and from 55.3 percent of credit market debt to 18.4 percent. Despite rising interest rates, interest outlays became a smaller share of the budget and were roughly stable as a percentage of GDP.

During the 1970s, large budget deficits emerged as the economy was disrupted by oil shocks and inflation. The nominal amount of Federal debt more than doubled, and Federal debt relative to GDP and credit market debt stopped declining after the middle of the decade. The growth of Federal debt accelerated in the 1980s, and the ratio of Federal debt to GDP grew sharply. The ratio of Federal debt to credit market debt also rose, though to a much lesser extent. Interest outlays on debt held by the public, calculated as a percentage of either total Federal outlays or GDP, increased as well.

The growth of Federal debt held by the public was decelerating by the mid-1990s, however, and the debt has declined markedly relative to both GDP and total credit market debt. It fell from 49.5 percent of GDP in 1993 to 34.7 percent in 2000; and it fell more gradually and unevenly from 26.6 percent of total credit market debt in 1993 to 18.9 percent in 2000. Interest on this debt, whether in absolute terms or relative to total outlays and GDP, has been declining as well. Interest as a share of outlays peaked at 16.5 percent in 1989 and then fell to 13.0 percent by 2000.

Projected Trends in Debt Over the Next Decade

This budget estimates a large surplus again this year, with a $236 billion reduction in publicly held debt. (For the exact relationship between the unified budget surplus and the repayment of debt held by the public, see table 12–3 below and its explanation.) Over the following decade, as table 12–3 shows below, the surpluses (including the contingency reserve) are estimated to remain at roughly similar levels for several years and then to grow larger. As a result, the debt held by the public is estimated to decline from $3.2 trillion at the end of 2001 to $1.2 trillion at the end of 2011, a historic $2.0 trillion reduction. By the end of 2011 debt held by the public is estimated to be 6.7 percent of GDP, the lowest percentage since shortly after the United States entered the First World War in 1917. Interest on this debt is estimated to be only 3.3 percent of total outlays [1] and to equal only 0.5 percent of GDP. [2] These percentages are about one-quarter of the percentages in 2000.

Large though this debt reduction is, its size is limited by the amount of available debt that can reasonably be redeemed. As table 12–2 shows, $1,158 billion of publicly held debt is estimated by the Office of Management and Budget to remain at the end of 2011. The budgetary assumptions behind these estimates do not prejudge future debt management decisions.

At the end of February, $529 billion of Treasury bonds were outstanding that will not mature until after 2011. As of April, Treasury is continuing to sell new 30-year bonds. It is also selling new 10-year notes, and

[1] This measure excludes the earnings on excess balances. If the latter were included, interest would be only 1.3 percent of total outlays.

[2] The macroeconomic assumptions behind these projections are reviewed in chapter 1 of this volume, "Economic Assumptions." The uncertainty in budget projections is discussed in *A Blueprint for New Beginnings: A Responsible Budget for America's Priorities* (February 2001), pp. 14–16.

Table 12–1. TRENDS IN FEDERAL DEBT HELD BY THE PUBLIC

(Dollar amounts in billions)

Fiscal year	Current dollars			Debt held by the public: FY 1996 dollars[1]	Debt held by the public as a percent of:		Interest on the debt held by the public as a percent of:[3]	
	Debt held by the public	Excess balances	Net indebtedness		GDP	Credit market debt[2]	Total outlays	GDP
1946	241.9	....	241.9	1,728.3	108.6	N/A	7.4	1.8
1950	219.0	....	219.0	1,270.7	80.1	53.3	11.4	1.8
1955	226.6	....	226.6	1,154.9	57.3	43.2	7.6	1.3
1960	236.8	....	236.8	1,070.7	45.6	33.8	8.5	1.5
1965	260.8	....	260.8	1,102.4	37.9	26.9	8.1	1.4
1970	283.2	....	283.2	994.2	28.0	20.8	7.9	1.5
1975	394.7	....	394.7	1,020.6	25.3	18.4	7.5	1.6
1980	711.9	....	711.9	1,271.6	26.1	18.5	10.6	2.3
1985	1,507.4	....	1,507.4	2,051.0	36.4	22.3	16.2	3.7
1986	1,740.8	....	1,740.8	2,313.1	39.5	22.6	16.1	3.6
1987	1,889.9	....	1,889.9	2,444.1	40.7	22.3	16.0	3.5
1988	2,051.8	....	2,051.8	2,569.3	40.9	22.2	16.2	3.4
1989	2,191.0	....	2,191.0	2,641.9	40.5	22.0	16.5	3.5
1990	2,411.8	....	2,411.8	2,803.0	42.1	22.6	16.2	3.5
1991	2,689.3	....	2,689.3	3,008.3	45.3	24.1	16.2	3.6
1992	3,000.1	....	3,000.1	3,270.0	48.2	25.7	15.5	3.4
1993	3,248.8	....	3,248.8	3,458.8	49.5	26.6	14.9	3.2
1994	3,433.4	....	3,433.4	3,577.9	49.4	26.8	14.4	3.0
1995	3,604.8	....	3,604.8	3,676.8	49.2	26.6	15.8	3.3
1996	3,734.5	....	3,734.5	3,734.5	48.5	26.2	15.8	3.2
1997	3,772.8	....	3,772.8	3,700.6	46.1	25.2	15.7	3.1
1998	3,721.6	....	3,721.6	3,599.3	42.9	23.3	15.1	2.9
1999	3,632.9	....	3,632.9	3,464.9	39.8	21.2	13.8	2.6
2000	3,410.1	....	3,410.1	3,191.0	34.7	18.9	13.0	2.4
2001 estimate	3,174.2	....	3,174.2	2,908.2	30.8	N/A	11.6	2.1
2002 estimate	2,946.8	....	2,946.8	2,644.6	27.1	N/A	10.1	1.8
2003 estimate	2,719.5	....	2,719.5	2,390.5	23.8	N/A	9.2	1.6
2004 estimate	2,473.2	....	2,473.2	2,129.3	20.5	N/A	8.3	1.4
2005 estimate	2,219.4	....	2,219.4	1,871.4	17.5	N/A	7.2	1.2
2006 estimate	1,928.2	....	1,928.2	1,592.4	14.4	N/A	6.3	1.0
2007 estimate	1,601.7	....	1,601.7	1,295.6	11.4	N/A	5.3	0.9
2008 estimate	1,403.9	161.5	1,242.3	1,112.5	9.5	N/A	4.5	0.7
2009 estimate	1,278.7	442.8	835.9	992.4	8.2	N/A	4.0	0.6
2010 estimate	1,207.9	824.0	383.9	918.0	7.3	N/A	3.5	0.6
2011 estimate	1,157.7	1,287.2	–129.5	861.7	6.7	N/A	3.3	0.5

N/A = Not Available.

[1] Debt in current dollars deflated by the GDP chain-type price index with fiscal year 1996 equal to 100.

[2] Total credit market debt owed by domestic nonfinancial sectors, modified in a few early years to be consistent with budget concepts for the measurement of Federal debt. Financial sectors are omitted to avoid double counting, since financial intermediaries borrow in the credit market primarily in order to finance lending in the credit market. Source: Federal Reserve Board flow of funds accounts. Projections are not available

[3] Interest on debt held by the public for 1946–2007 is estimated as the interest on Treasury debt securities less the "interest received by trust funds" (subfunction 901 less subfunctions 902 and 903). For 2008–2011, in order to maintain comparability with debt held by the public, it does not include interest earnings on excess balances, which are offsetting receipts within subfunction 901. The estimate of interest on debt held by the public does not include the comparatively small amount of interest paid on agency debt or the offsets for interest on Treasury debt received by other Government accounts (revolving funds and special funds).

the maturity of 10-year notes sold after September will extend beyond 2011. Regardless of the size of the surplus, these securities can be redeemed early only if Treasury can buy them back in the market. Some holders of these securities, especially those who place special value on the absence of any credit risk, will not be willing to sell them back to the Treasury except at premiums that are excessively high from the standpoint of the Federal Government. The Congressional Budget Office (CBO) agrees, noting in its January report that "it is unlikely that all, or even a significant share, of the holders of those bonds will choose to sell them at prices that the government is willing to pay."[3]

A second group of Treasury securities that may not readily be redeemable consists of special purpose, non-marketable debt. Savings bonds, the largest component, are thought by many people to encourage private saving by small savers in a convenient and safe investment vehicle. Furthermore, even if the Government decided to terminate this program, many savings bonds, including those now being sold, do not mature until after 2011. State and local government series securities, the second largest type of non-marketable debt, are a way

[3] CBO, *The Budget and Economic Outlook: Fiscal Years 2002–2011* (January 2001), page 15.

Table 12–2. NON-REDEEMABLE DEBT [1]

(In billions of dollars)

	Estimate 2011
Marketable Treasury Debt: [2]	
Coupon issues (non-matured 10- and 30-year notes and bonds)	677
Inflation-indexed issues [3] (non-matured 10- and 30-year notes and bonds)	113
Non-Marketable Treasury Debt:	
Savings bonds	170
State and local government series: securities used temporarily to house proceeds of bond issues	86
Foreign series: bonds that back debt in certain emerging markets, or "Brady Bonds" (mature during 2019–2023)	19
Domestic series: bonds that back REFCORP debt issued as part of the Savings and Loan association clean-up (mature during 2019–2030)	30
Government account series: Thrift Savings Fund (defined-contribution pension plan for Federal civilian employees)	76
Unamortized discounts and premiums (primarily for zero-coupon bonds in the foreign and domestic series)	–33
Agency Debt:	
Tennessee Valley Authority and other agencies	20
Total	**1,158**

[1] Types of debt securities are shown at par values.The total of $1,158 billion includes an adjustment for unamortized discounts and premiums, which is consistent with the measurement of debt held by the public.

[2] This table includes estimates for Treasury buybacks of outstanding securities only through FY 2001. These estimates assume that Treasury will buy back $35 billion (face value) of securities in FY 2001.

[3] Includes indexation adjustments based on the economic assumptions for this budget.

for state and local governments to invest bond proceeds temporarily. The interest rate that states and localities pay on their bonds is reduced by Federal income tax exemption, and Federal legislation restricts them from earning arbitrage profits by investing bond proceeds in higher yielding investments. Other non-marketable Treasury securities with long maturities were issued to back-up certain debt that was issued to resolve financial problems among savings and loan associations, or to back-up debt in the emerging markets of a few foreign countries. Still other non-marketable securities were sold to the Thrift Savings Fund, a defined-contribution pension plan for Federal civilian employees, which offers investment in Treasury securities as one option.

In addition to Treasury securities, Federal debt includes a small amount of securities issued by a few Federal agencies. These securities may not readily be redeemed and in some cases, as discussed in a later section, are inherent in the way the program operates.

It is impossible to know with confidence how much non-redeemable debt will remain in 2008, when for the first time the surplus is estimated to be larger than the maturing debt, or how much will remain in 2011. That will depend on many debt management decisions that have not yet been made and will not be made until the appropriate future occasions. The budget therefore makes a number of simplified assumptions that are not intended to prejudge future debt management decisions. Marketable coupon securities are discontinued after 2005. All bonds that are callable prior to maturity are called on the first call date. Treasury buys back $35 billion of bonds in 2001; consistent with previous budget documents, estimates are not made of buybacks in later years. Savings bonds decline slightly, and the state and local government series declines significantly.

The Congressional Budget Office has also estimated the debt not available for redemption. Their latest estimates, published in January 2001, project that $818 billion of publicly held debt would be unavailable for redemption at the end of 2011. [4] Compared to the assumptions in the budget, CBO assumes that marketable notes and bonds will be discontinued earlier and buybacks will continue beyond 2001. They project "that the Treasury will continue its buyback program at approximately the current level through next year but that after 2002, the amount of debt it repurchases will dwindle." [5]

Based on the budget estimates, the surplus eventually exceeds the debt that can be redeemed in the same year—what happens to the difference? This budget does not make any assumption about how the difference is held and simply calls it "excess balances," a term that does not have any connotations about how the amounts are held. [6] It uses the term "net indebtedness" for the difference between debt held by the public and excess balances. Excess balances start in 2008 and grow to $1.3 trillion in 2011, when net indebtedness becomes negative.

The Government itself does not have any satisfactory way to hold these excess balances as assets. As the Administration stated in *A Blueprint for New Beginnings: A Responsible Budget for America's Priorities* (February 2001): "The Administration believes that Government acquisition of the private economy is utterly unacceptable as a matter of principle. . . . [and] that Government investment of these uncommitted funds in private companies and securities would harm the economy's long run growth prospects." [7] The Administration also believes that it would be impracticable to hold such large amounts in its accounts at the Federal Reserve Banks and other depositories. [8] Indeed, holding such amounts in the Federal Reserve would simply shift to it the need to invest in the private sector.

In fact, it should not be supposed that excess balances will ever actually be accumulated. The projections in this budget are for ten and one-half years, a long period with many inherent uncertainties. The budget has therefore set aside "over $0.8 trillion in reserve funds that can be used for additional needs, contingency purposes, and further debt reduction if this became financially viable." [9] The budget recognizes that a num-

[4] *Ibid.*, pages 14–15.

[5] *Ibid.*, page 15.

[6] The word "excess" means in excess of the amounts held for operational and programmatic purposes. Excess balances are assumed to earn interest. Because no institutional arrangements are assumed regarding how or whether the excess balances might be deposited or invested, the interest earnings on excess balances are included, as offsetting receipts, in the account "interest on Treasury debt securities (gross)."

[7] *A Blueprint for New Beginnings,* page 13.

[8] *Ibid.*, page 31.

[9] *Ibid.*, page 11 footnote. Also see table S–1 of the *Budget* for the place of the contingency reserve in a summary of the President's 10-year plan.

ber of reasons could require the commitment of more resources, such as national defense and entitlement reforms, and that the debt buyback program may remain more cost-effective for some period of time. It also says that unneeded funds should be left with American workers through lower taxes in the future.[10] To be realistic, any plan over ten years must allow for contingencies and other uncertainties in its construction and its interpretation. Excess balances are a recognition that the future is uncertain and many decisions will not be made until later years.

Debt Held by the Public, Gross Federal Debt, and Liabilities Other Than Debt

The Federal Government issues debt securities for two principal purposes. First, it borrows from the public to finance the Federal deficit.[11] Second, it issues debt to Government accounts, primarily trust funds, that accumulate surpluses. By law, trust fund surpluses must generally be invested in Federal securities. The gross Federal debt is defined to consist of both the debt held by the public and the debt held by Government accounts. Nearly all the Federal debt has been issued by the Treasury and is sometimes called "public debt," but a small portion has been issued by other Government agencies and is called "agency debt."[12]

Borrowing from the public, whether by the Treasury or by some other Federal agency, has a significant impact on the economy. Borrowing from the public is normally a good approximation of the Federal demand on credit markets. Even if the proceeds are used productively for tangible or intangible investment, the Federal demand on credit markets has to be financed out of the saving of households and businesses, the State and local sector, or the rest of the world. Federal borrowing thereby competes with the borrowing of other sectors for financial resources in the credit market, and tends to increase interest rates and reduce private capital accumulation. Borrowing from the public thus affects the size and composition of assets held by the private sector and the perceived wealth of the public. It also increases the amount of taxes required to pay interest to the public on Federal debt. Borrowing from the public is therefore an important concern of Federal fiscal policy.[13]

Issuing debt securities to Government accounts performs an essential function in accounting for the operation of these funds. The balances of debt represent the cumulative surpluses of these funds due to the excess of their tax receipts, interest receipts, and other collections compared to their spending. The interest on the debt compensates these funds—and the members of the public who pay earmarked taxes or user fees into these funds—for spending some of the funds' collections at a later time than when they receive the money. The debt securities are a liability of the general fund to the fund that holds the securities and are a mechanism for that fund to accumulate interest on its balances. The fund can use these invested balances in later years to draw upon the U.S. Treasury to make future payments on its behalf to the public. Public policy may deliberately run surpluses and accumulate debt in trust funds and other Government accounts in anticipation of future spending.

However, issuing debt to Government accounts does not have any of the economic effects of borrowing from the public. It is an internal transaction of the Government, made between two accounts that are both within the Government itself. It is not a current transaction of the Government with the public; it does not draw upon private saving and compete with the private sector for available funds in the credit market; it does not provide the account with resources other than a legal claim on the U.S. Treasury; its interest does not have to be financed by taxes or other means; and it does not represent the estimated amount of the account's future transactions with the public. For example, if the account records the transactions of a social insurance program, the debt that it holds does not represent the actuarial present value of expected future benefits for either the current participants in the program or the larger group of current participants plus the expected future participants over some stated time period. The future transactions of Federal social insurance and employee retirement programs, which own about three-fourths of the debt held by Government accounts, are important in their own right and need to be considered separately. This can be done through information published in actuarial and financial reports for these programs.[14] Debt held by the public is therefore a better concept than gross Federal debt for analyzing the effect of the budget on the economy.

Debt securities do not encompass all the liabilities of the Federal Government. For example, accounts payable occur in the normal course of buying goods and services; social security benefits are due and payable as of the end of the month but, according to statute, are paid during the next month; loan guarantee liabil-

[10] See generally *ibid.*, chapter III, especially pages 16–17.

[11] Debt held by the public was measured until 1988 as the par value (or face value) of the security, which is the principal amount due at maturity. (The only exception was savings bonds.) However, most Treasury securities are sold at a discount from par, and some are sold at a premium. Treasury debt held by the public is now measured as the sales price plus the amortized discount (or less the amortized premium). At the time of sale, the value equals the sales price. Subsequently, the value equals the sales price plus the amount of the discount that has been amortized up to that time. In equivalent terms, the measured value of the debt equals par less the unamortized discount. (For a security sold at a premium, the definition is symmetrical.) When the measurement was changed, the data in *Historical Tables* were revised as far back as feasible, which was 1956. Agency debt, except for zero-coupon certificates, is recorded at par. For further analysis of these concepts, see Special Analysis E, "Borrowing and Debt," in *Special Analyses, Budget of the United States Government, Fiscal Year 1990,* pages E-5 to E-8, although some of the practices it describes have been changed. In 1997 Treasury began to sell inflation-indexed notes and bonds. The recorded value of these securities includes a periodic adjustment for inflation.

[12] The term "agency debt" is defined more narrowly in the budget than customarily in the securities market, where it includes not only the debt of the Federal agencies listed in table 12–4 but also the debt of the Government-sponsored enterprises listed in table 8–11 at the end of Chapter 8 and certain Government-guaranteed securities.

[13] The Federal sector of the national income and product accounts provides a measure of the current surplus or deficit that can be used to analyze the effect of Federal fiscal policy on national saving within the framework of an integrated set of measures of aggregate U.S. economic activity. The Federal sector and its differences from the budget are discussed in chapter 16 of this volume, "National Income and Product Accounts." Also see chapter 6 of this volume, Part IV, the section on the analysis of saving and investment.

[14] Extensive actuarial analyses of the social security and medicare programs are published in the annual reports of the boards of trustees of these funds. Annual actuarial reports are also prepared for Federal employee retirement funds. A summary of actuarial estimates for these and other programs is included annually in the *Financial Report of the United States Government* (formerly the *Consolidated Financial Statements*), prepared by the Financial Management Service of the Treasury Department.

Table 12–3. FEDERAL GOVERNMENT FINANCING AND DEBT

(In billions of dollars)

	Actual 2000	Estimate 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Financing:												
Unified budget surplus	236	281	231	242	262	269	305	340	373	420	465	526
On-budget surplus/reserve for contingencies [1]	87	125	59	49	52	32	52	69	85	117	142	184
Off-budget surplus	150	156	172	193	211	237	252	270	287	303	323	343
Financing other than the change in debt held by the public:												
Premiums paid (–) on buybacks of Treasury securities [2]	–6	–10	....	....	....	....	....	....	....	....	....	....
Changes in: [3]												
Treasury operating cash balance	4	3	....	....	....	....	....	....	....	....	....	....
Checks outstanding, deposit funds, etc. [4]	3	–*	–1	....	....	....	....	....	....	....	....	....
Seigniorage on coins	2	2	2	2	2	2	2	2	2	2	2	2
Less: Net financing disbursements:												
Direct loan financing accounts	–22	–39	–4	–17	–18	–17	–16	–16	–16	–16	–16	–15
Guaranteed loan financing accounts	4	–1	–1	1	–*	–*	1	1	1	1	1	1
Total, financing other than the change in debt held by the public	–13	–45	–4	–15	–16	–15	–14	–13	–13	–13	–13	–13
Total, amount available to repay debt held by the public	223	236	227	227	246	254	291	326	359	406	452	513
Change in debt held by the public: [5 6]												
Change in debt held by the public	–223	–236	–227	–227	–246	–254	–291	–326	–198	–125	–71	–50
Less change in excess balances	....	....	....	....	....	....	....	....	–162	–281	–381	–463
Change in net indebtedness	–223	–236	–227	–227	–246	–254	–291	–326	–359	–406	–452	–513
Debt Subject to Statutory Limitation, End of Year:												
Debt issued by Treasury	5,601	5,598	5,637	5,698	5,759	5,832	5,890	5,932	6,118	6,395	6,749	7,140
Adjustment for Treasury debt not subject to limitation and agency debt subject to limitation [7]	–15	–15	–15	–15	–15	–15	–15	–15	–15	–15	–15	–15
Adjustment for discount and premium [8]	6	6	6	6	6	6	6	6	6	6	6	6
Total, debt subject to statutory limitation [9]	5,592	5,588	5,627	5,688	5,749	5,822	5,881	5,922	6,108	6,385	6,740	7,130
Debt Outstanding, End of Year:												
Gross Federal debt: [10]												
Debt issued by Treasury	5,601	5,598	5,637	5,698	5,759	5,832	5,890	5,932	6,118	6,395	6,749	7,140
Debt issued by other agencies	28	27	27	26	25	24	23	21	21	21	20	20
Total, gross Federal debt	5,629	5,625	5,664	5,724	5,784	5,856	5,913	5,953	6,138	6,415	6,770	7,160
Held by:												
Debt securities held as assets by Government accounts	2,219	2,451	2,717	3,004	3,310	3,636	3,985	4,352	4,735	5,137	5,562	6,002
Debt securities held as assets by the public: [6]												
Debt held by the public	3,410	3,174	2,947	2,720	2,473	2,219	1,928	1,602	1,404	1,279	1,208	1,158
Less excess balances	....	....	....	....	....	....	....	....	–162	–443	–824	–1,287
Net indebtedness [11]	3,410	3,174	2,947	2,720	2,473	2,219	1,928	1,602	1,242	836	384	–129

*$500 million or less.

[1] The actual amount of annual debt retirement will vary depending upon the availability of eligible redeemable debt, and the use, if any, of the contingency reserve.

[2] This table includes estimates for Treasury buybacks of outstanding securities only through FY 2001.These estimates assume that Treasury will buy back $35 billion (face value) of securities in FY 2001.The premiums paid on buybacks are based on experience to date and the interest rates in the economic assumptions.

[3] A decrease in the Treasury operating cash balance (which is an asset) would be a means of financing a deficit and therefore has a positive sign.An increase in checks outstanding or deposit fund balances (which are liabilities) would also be a means of financing a deficit and therefore would also have a positive sign.

[4] Besides checks outstanding and deposit funds, includes accrued interest payable on Treasury debt, miscellaneous liability accounts, allocations of special drawing rights, and, as an offset, cash and monetary assets other than the Treasury operating cash balance, miscellaneous asset accounts, and profit on sale of gold.

[5] Indian tribal funds that are owned by the Indian tribes and held and managed in a fiduciary capacity by the Government on the tribes' behalf were reclassified from trust funds to deposit funds as of October 1, 1999.Their holdings of Treasury securities were accordingly reclassified from debt held by Government accounts to debt held by the public, which affected the change in debt held by the public without affecting borrowing or the repayment of debt.

[6] The amount of the unified budget surplus that is available to repay debt held by the public is estimated to be more than the amount of debt that is available to be redeemed in 2008 and subsequent years.The difference is assumed to be held as ''excess balances.'' (''Excess'' means in excess of the amounts held for operational and programmatic purposes.) The debt held by the public is the amount of Federal debt securities held by the public. The net indebtedness is the debt held by the public less the excess balances.

[7] Consists primarily of Federal Financing Bank debt.

[8] Consists of unamortized discount (less premium) on public issues of Treasury notes and bonds (other than zero-coupon bonds) and unrealized discount on Government account series securities.

[9] The statutory debt limit is $5,950 billion.

[10] Treasury securities held by the public and zero-coupon bonds held by Government accounts are almost entirely measured at sales price plus amortized discount or less amortized premium.Agency debt is almost entirely measured at face value.Treasury securities in the Government account series are measured at face value less unrealized discount (if any).

[11] At the end of 2000, the Federal Reserve Banks held $511 billion of Federal securities and the rest of the public held $2,899 billion.Debt held by the Federal Reserve Banks is not estimated for future years.

ities are incurred when the Government guarantees the payment of interest and principal on private loans; and liabilities for future pension payments are incurred as part of the current compensation for the services performed by Federal civilian and military employees in producing Government outputs. Like debt securities sold in the credit market, these liabilities have their own distinctive effects on the economy. Federal liabilities are analyzed within the broader conceptual framework of Federal resources and responsibilities in chapter 2 of this volume, "Stewardship: Toward a Federal Balance Sheet." The different types of liabilities are reported annually in the financial statements of the major Federal agencies and in the *Financial Report of the United States Government*, prepared by the Treasury Department.

Government Surpluses and Debt Repayment

Table 12–3 summarizes Federal borrowing and debt from 2000 through 2011. In 2000 the Government repaid $223 billion of debt held by the public, and the debt outstanding decreased to $3,410 billion. The debt held by Government accounts increased $246 billion, and gross Federal debt increased by $23 billion to a level of $5,629 billion.

Debt held by the public.—Table 12–3 shows the relationship between the Federal surplus and the repayment of debt held by the public. The repayment of publicly held debt depends on the Federal Government's expenditure programs and tax laws, on the economic conditions that influence tax receipts and outlays, and on debt management policy. The sensitivity of the budget to economic conditions is analyzed in chapter 1 of this volume.

The total or unified budget surplus consists of the on-budget surplus and the surplus of the off-budget Federal entities, which have been excluded from the budget by law. Under present law, the off-budget Federal entities are the social security trust funds (old-age and survivors insurance and disability insurance) and the Postal Service fund.[15] The off-budget totals consist almost entirely of social security, which had a large surplus in 2000 and is estimated to have large and growing surpluses throughout the projection period. The on-budget surplus is labeled "on-budget surplus/reserve for contingencies" in table 12–3, because the budget has set aside $0.8 trillion that can be used for additional needs and contingency purposes. To the extent it is used for such purposes, outlays would be higher or receipts lower than estimated for this table, and the realized on-budget surplus would be correspondingly lower.

The Government's ability to repay debt held by the public depends not only on the size of the total surplus but also on two other considerations—financing other than the change in debt held by the public, and the availability of redeemable debt.

Financing other than the change in debt held by the public.—The Government's ability to repay debt held by the public, or its need to borrow, has always depended on several other factors besides the unified budget surplus or deficit, such as the change in Treasury cash balances or, in recent years, the net financing disbursements of credit programs. As shown in table 12–3, these other factors—which in this table are called "financing other than the change in debt held by the public"—can either increase or decrease the Government's repayment of debt. (An increase in its ability to repay debt is represented by a positive sign, like the surplus; a decrease is represented by a negative sign, like a deficit.) In 2000 the total surplus was $236 billion and the "financing other than the change in debt held by the public" was -$13 billion. As a result, the Government was able to repay $223 billion of publicly held debt. The sum of the surplus and the other financing is roughly stable over the next few years and then rises sharply, as a result of which the Government repays large and generally increasing amounts of debt each year until limited by the availability of redeemable debt.

When the surplus or deficit is large, it is usually a good approximation to say that "the surplus is used to repay debt held by the public" or "the deficit is financed by borrowing from the public." Over the last 10 years, the cumulative deficit was $882 billion and the increase in debt held by the public was $998 billion. The other factors added a total of $116 billion of borrowing over that period, an average of $12 billion per year. The variation was wide, ranging from additional borrowing (or lower repayment) of $36 billion to reduced borrowing of $19 billion. The other factors that affect borrowing do not depend on the size of the surplus or deficit. Thus, when the surplus or deficit is moderate in size, the other factors that affect borrowing may account for a large proportion of the change in Federal debt held by the public.

Many of these other factors are small in most years compared to borrowing from the public, even when the surplus or deficit is relatively small. This is because they are limited by their own nature. Decreases in cash balances, for example, while they may occasionally be large, are inherently limited by past accumulations, which themselves required financing when they were built up.

However, two other factors in the financing may be relatively large for extended periods. The first is premiums on debt buybacks—the excess of the price paid over the book value. As discussed earlier, the Treasury Department is buying back some outstanding bonds as part of its work to manage the reduction of the publicly held debt. The premiums at present are the result of interest rates having fallen since the bonds were sold and are recorded outside the budget totals as a separate entry in the "financing other than the change in debt held by the public." It is important to note, however, that the volume of buybacks to date has been small relative to the outstanding stock of debt. The premiums were $5.5 billion in 2000 on bonds with a book value of $21.2 billion and are estimated to be $10 billion in 2001, when buybacks are assumed to be made over the entire year. (Discounts would be recorded in the same way, if interest rates were to rise above the rates at the time of sale.) This classification is explained in a section of chapter 24, "Budget System and Concepts and Glossary."

The second such factor was created by the Federal Credit Reform Act of 1990. Budget outlays for direct loans and loan guarantees consist of the estimated sub-

[15] For further explanation of the off-budget Federal entities, see chapter 19, "Off-Budget Federal Entities and Non-Budgetary Activities."

sidy cost of the loans or guarantees at the time when the direct loans or guaranteed loans are disbursed. The cash flows to and from the public resulting from these loans and guarantees are not costs to the Government except for those costs already included in budget outlays. Therefore, they are non-budgetary in nature and are recorded as transactions of the non-budgetary financing account for each credit program.[16] The net cash flows of the financing accounts, including intragovernmental transactions as well as transactions with the public, are called "net financing disbursements." They are defined in the same way as the "outlays" of a budgetary account and therefore affect the ability to repay debt held by the public, or the requirements for borrowing from the public, in the same way as the surplus or deficit.

The net financing disbursements are partly due to intragovernmental transactions with budgetary accounts (the receipt of subsidy payment and the receipt or payment of interest), and partly due to transactions with the public (disbursement and repayment of loans, receipt of interest and fees, payment of default claims, and so forth). The intragovernmental transactions do not affect Federal borrowing from the public. (Although the surplus or deficit changes, the net financing disbursement changes in an equal amount with the opposite sign, so the effects cancel out on a net basis.) On the other hand, financing account disbursements to the public increase the requirement for borrowing from the public in the same way as an increase in budget outlays that are disbursed to the public in cash. Financing account receipts from the public can be used to finance the payment of the Government's obligations, and therefore reduce the requirement for Federal borrowing from the public in the same way as an increase in budget receipts.

In the early years of credit reform, the financing accounts had little net effect on borrowing requirements, but their impact began to become large in the middle 1990s. By 2000 they required $17 billion of financing, and thus reduced the repayment of debt by this amount; they are estimated to reduce debt repayment by $40 billion in 2001, by $5 billion in 2002, and by $15–18 billion each year subsequently. The expansion from the early years was mainly because of the growth of the direct student loan program; the wide swings between 2000 and 2002 are due partly to the direct student loan program but even more to reestimates and recoveries on the loans that financed the sale of the spectrum. Since direct loans require cash disbursements equal to the full amount of the loans when the loans are made, Federal borrowing requirements are initially increased. Later, when the loans are repaid, Federal borrowing requirements will decrease.

Availability of redeemable debt.—A surplus can be used to reduce publicly held debt only to the extent that debt securities can be retired whether because they mature, the owners exercise a right to redeem them on demand (as in the case of savings bonds), the Treasury calls them (as it may do at stated dates for a few issues of bonds), or the Treasury buys them back. As discussed in an earlier section of this chapter, the budget estimates that by 2008 so much debt will have been repaid that the amount available for redemption in that year will be much less than the unified budget surplus. As the estimates in table 12–3 show, the surplus in 2008 is $373 billion and other financing requirements due to the factors discussed above are $13 billion, so $359 billion is available to repay debt held by the public. However, only $198 billion of debt can be redeemed. Therefore, the remaining $162 billion of the surplus is accumulated as "excess balances." (The term "excess" means that the balances are in excess of the amounts held for operational and programmatic purposes.) In the following three years the amount of debt available to be redeemed diminishes, so despite growing surpluses the reduction in debt held by the public becomes progressively smaller.

Debt held by Government accounts.—The amount of Federal debt issued to Government accounts depends largely on the surpluses of the trust funds, both on-budget and off-budget, which owned 94 percent of the total Federal debt held by Government accounts at the end of 2000. In 2002, for example, the total trust fund surplus is estimated to be $257 billion, and Government accounts are estimated to invest $266 billion in Federal securities. The difference is mainly because some revolving funds and special funds also hold Federal debt. In addition, the trust funds may change the amount of their cash assets not currently invested. The amounts of debt held in major accounts and the annual investments are shown in table 12–5.

Agency Debt

Several Federal agencies, shown in table 12–4, sell debt securities to the public and at times in the past have sold securities to other Government accounts. During 2000, agencies repaid $0.2 billion to the public. Agency debt is only one percent of Federal debt held by the public. Agency borrowing and repayment of debt is estimated to remain small in 2001 and 2002.

The reasons for issuing agency debt differ considerably from one agency to another. The predominate agency borrower is the Tennessee Valley Authority, which had borrowed $26.0 billion from the public as of the end of 2000, or 95 percent of the total for all agencies. TVA sells debt primarily to finance capital expenditures and to refund other issues of its existing debt.

The Federal Housing Administration, on the other hand, has for many years issued both checks and debentures as means of paying claims to the public that arise from defaults on FHA-insured mortgages. Issuing debentures to pay the Government's bills is equivalent to borrowing from the public and then paying the bills by disbursing the cash borrowed, so the transaction

[16] The Federal Credit Reform Act of 1990 (sec. 505(b)) requires that the financing accounts be non-budgetary. As explained in chapter 19, "Off-Budget Federal Entities and Non-Budgetary Activities," they are non-budgetary in concept because they do not measure cost. For additional discussion of credit reform, see chapter 24 of this volume, "Budget System and Concepts and Glossary," and the other references cited in chapter 19.

Table 12–4. AGENCY DEBT

(In millions of dollars)

	Borrowing or repayment (–) of debt: 2000 Actual	Borrowing or repayment (–) of debt: 2001 Estimate	Borrowing or repayment (–) of debt: 2002 Estimate	Debt end of 2001 estimate
Borrowing from the public:				
Housing and Urban Development:				
Federal Housing Administration	112	–84	....	143
Small Business Administration:				
Participation certificates: Section 505 development company	....	....	....	7
Architect of the Capitol	–2	–2	–3	168
Farm Credit System Financial Assistance Corporation	–89	....	....	775
Federal Communications Commission	125	....	–125	....
Federal Deposit Insurance Corporation:				
FSLIC Resolution Fund	....	....	....	63
National Archives	–6	–6	–7	258
Tennessee Valley Authority	–390	–452	–208	25,327
Total, borrowing from the public	–249	–545	–343	26,741
Borrowing from other funds:				
Postal Service Fund [1]	–583	–51	....	....
Total, borrowing from other funds	**–583**	**–51**	....	....
Total, agency borrowing	**–832**	**–596**	**–343**	**26,741**

[1] The Postal Service debt held by other funds is the result of the FFB swapping Postal Service securities with the Civil Service Retirement and Disability trust fund during 1996 in exchange for Treasury securities having an equal present value. See the narrative for further explanation.

is recorded as being simultaneously an outlay and a borrowing. The debentures are therefore classified as agency debt. The borrowing by FHA and a few other agencies that have engaged in similar transactions is thus inherent in the way that their programs operate.[17]

Some types of lease-purchase contracts are equivalent to direct Federal construction financed by Federal borrowing. A number of years ago, the Federal Government guaranteed the debt used to finance the construction of buildings for the National Archives and the Architect of the Capitol, and has subsequently exercised full control over the design, construction, and operation of the buildings. The construction expenditures and interest were therefore classified as Federal outlays, and the borrowing was classified as Federal agency borrowing from the public.

The proper budgetary treatment of lease-purchases was further examined in connection with the Budget Enforcement Act of 1990. Several changes were made. Among other decisions, it was determined that outlays for a lease-purchase in which the Government assumes substantial risk will be recorded in an amount equal to the asset cost over the period during which the contractor constructs, manufactures, or purchases the asset; if the asset already exists, the outlays will be recorded when the contract is signed. Agency borrowing will be recorded each year to the extent of these outlays. The agency debt will subsequently be redeemed over the lease payment period by a portion of the annual lease payments. This rule was effective starting in 1991.[18] However, no lease-purchase agreements in which the Government assumes substantial risk have yet been authorized or are estimated for 2001 or 2002. The new budgetary treatment was reviewed in connection with the Balanced Budget Act of 1997. Some clarifications were made, but there were no substantive changes from existing practice.

The amount of agency securities sold to the public has been reduced by borrowing from the Federal Financing Bank (FFB). The FFB is an entity within the Treasury Department, one of whose purposes is to substitute Treasury borrowing for agency borrowing from the public. It has the authority to purchase agency debt and finance these purchases by borrowing from the Treasury. Agency borrowing from the FFB is not included in gross Federal debt. It would be double counting to add together (a) the agency borrowing from the FFB and (b) the Treasury borrowing from the public that was needed to provide the FFB with the funds to lend to the agencies.

The debt of the agencies that borrow from the FFB is not subject to the statutory debt limitation. This enabled Treasury to raise additional cash to avoid default during the dispute with Congress over the budget and the debt limit five years ago. In February 1996, FFB swapped most of its holdings of TVA and Postal Service debt to the Civil Service Retirement and Disability trust fund (CSRDF) in exchange for Treasury securities. The TVA and most of the Postal Service securities acquired by CSRDF were redeemed before this year, but the remaining Postal Service securities

[17] The debt securities of the FSLIC Resolution fund were also issued as a means of paying specified bills. The budgetary treatment of these and similar securities is further explained in Special Analysis E of the 1989 *Budget,* pp. E-25 to E-26; and Special Analysis E of the 1988 *Budget,* pp. E-27 to E-28.

[18] The rule was not only about lease-purchases in which the Government assumes substantial risk. For all lease-purchases and other capital leases, the rule required that budget authority be recorded up front for the present value of these payments.

are included in gross Federal debt shown in table 12–3, are included in table 12–4 as amounts that agencies borrowed from other funds, and are included in table 12–5 as agency debt held by Government accounts. Including agency debt held by Government accounts in gross Federal debt is not double counting, because Treasury did not have to borrow from the public in order for these accounts to buy the securities. Moreover, the TVA and Postal Service securities acquired by CSRDF replaced Treasury securities, which had been counted in gross Federal debt. It is assumed the remaining Postal Service securities held by CSRDF will be redeemed in 2001, at which time CSRDF will invest the principal repayment in Treasury securities. [19]

Debt Held by Government Accounts

Trust funds, and some public enterprise revolving funds and special funds, accumulate cash in excess of current requirements in order to meet future obligations. These cash surpluses are invested mostly in Treasury debt and, to a very small extent, in agency debt.

Investment by trust funds and other Government accounts has risen greatly over the past two decades. It was $246 billion in 2000, as shown in table 12–5, and it is estimated to be $266 billion in 2002. The holdings of Federal securities by Government accounts are estimated to grow to $2.7 trillion billion by the end of 2002, or 48 percent of the gross Federal debt. This percentage is estimated to rise further in the following years as the budget surpluses reduce the debt held by the public and the trust funds continue to accumulate surpluses. By 2011, debt held by Government accounts is estimated to be 84 percent of the gross Federal debt.

The large investment by Government accounts is concentrated among a few trust funds. The two social security trust funds—old-age and survivors insurance and disability insurance—have a large combined surplus and invest an increasing amount each year: a total of $486 billion during 2000–02, which is 65 percent of the total estimated investment by Government accounts.

In addition to these two funds, the largest investment is by the Federal employee retirement and disability trust funds. The principal trust fund for Federal civilian employees is the civil service retirement and disability trust fund, which accounts for 13 percent of the total investment by Government accounts during 2000–02. The military retirement trust fund accounts for 2 percent. Altogether, social security and these two retirement funds account for 80 percent of the investment by all Government accounts during this period. At the end of 2002, they are estimated to own 76 percent of the total debt held by Government accounts. The largest other holdings are by the hospital insurance trust fund and the unemployment trust fund.

Technical note on debt reclassifications.—A small part of gross Federal debt was reclassified in 1999 from debt held by Government accounts to debt held by the public as the result of reclassifying some investments from trust funds (within the budget) to deposit funds. Deposit funds are non-budgetary accounts that record amounts held by the Government temporarily until ownership is determined (such as earnest money paid by bidders for mineral leases) or held by the Government as an agent for others (such as State income taxes withheld from Federal employees' salaries and not yet paid to the States). Because the amounts are not owned by the Government, the transactions of deposit funds are not included in the unified budget receipts, outlays, and surplus or deficit, and the Treasury securities held by deposit funds have normally been included in debt held by the public rather than debt held by Government accounts. [20]

The reclassified funds were Indian tribal funds that are owned by Indian tribes and held and managed by the Government in a fiduciary capacity on the tribes' behalf. They were reclassified to deposit funds as of October 1, 1999, and their holdings of Treasury securities were accordingly reclassified from debt held by Government accounts to debt held by the public. The amount of the securities reclassified was $355 million, which, as noted in footnote 5 to table 12–3, means that the decrease in publicly held debt in 2001 was $355 million less than the amount available to repay debt. The reason for the change in classification is explained in chapter 15, "Trust Funds and Federal Funds," in *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2001* (pages 347–51).

[19] For further discussion of the debt limit dispute and the swap of securities between the FFB and CSRDF, see *Analytical Perspectives, Budget of the United States Government, Fiscal Year 1998,* pages 222 and 225.

[20] Deposit funds are further discussed in a section of chapter 24, "Budget System and Concepts and Glossary."

Table 12–5. DEBT HELD BY GOVERNMENT ACCOUNTS [1]

(In millions of dollars)

Description	Investment or disinvestment (–)			Holdings end of 2002 estimate
	2000 Actual	2001 Estimate	2002 Estimate	
Investment in Treasury debt:				
Energy:				
Nuclear waste disposal fund [1]	1,301	1,034	1,140	11,409
Uranium enrichment decontamination fund	509	418	491	3,072
Health and Human Services:				
Federal hospital insurance trust fund	15,092	28,319	33,692	230,870
Federal supplementary medical insurance trust fund	18,547	–5,601	–202	39,272
Vaccine injury compensation trust fund	146	103	113	1,793
Housing and Urban Development:				
Federal Housing Administration mutual mortgage fund	2,318	500	4,000	21,760
Other HUD	205	420	439	7,055
Interior: Abandoned Mine Reclamation fund	82	–22	139	1,964
Labor:				
Unemployment trust fund	9,042	6,462	6,668	99,529
Pension Benefit Guaranty Corporation	1,204	1,109	1,603	13,212
State: Foreign Service retirement and disability trust fund	527	533	543	11,734
Transportation:				
Highway trust fund	2,940	1,601	103	32,727
Airport and airway trust fund	683	2,536	1,066	16,699
Oil spill liability trust fund	136	–92	–142	965
Aquatic resources trust fund	43	–8	96	1,280
Treasury: Exchange stabilization fund	–4,204	–998	....	10,031
Veterans Affairs:				
National service life insurance trust fund	–149	–243	–327	11,234
Other trust funds	44	24	30	1,894
Federal funds	–8	–15	–18	510
Defense-Civil:				
Military retirement trust fund	8,074	2,640	6,190	158,178
Harbor maintenance trust fund	67	....	162	1,833
Environmental Protection Agency:				
Hazardous substance trust fund	–467	–475	–430	3,221
Leaking underground storage tank trust fund	211	176	213	2,058
International Assistance Programs:				
Overseas Private Investment Corporation	43	46	132	3,305
Office of Personnel Management:				
Civil Service retirement and disability trust fund [3]	31,347	31,198	31,184	574,368
Employees life insurance fund	1,617	1,326	1,297	24,995
Employees health benefits fund	154	759	1,171	7,919
Social Security Administration:				
Federal old-age and survivors insurance trust fund [2]	131,293	137,096	151,417	1,182,032
Federal disability insurance trust fund [2]	21,041	21,680	23,134	158,521
Farm Credit System Insurance Corporation:				
Farm Credit Insurance Fund	145	96	94	1,711
Federal Deposit Insurance Corporation:				
Bank Insurance fund	967	–302	290	29,314
FSLIC Resolution fund	204	242	220	2,970
Savings Association Insurance fund	603	162	78	10,987
National Credit Union Administration: Share insurance fund	218	283	271	4,900
Postal Service fund [2]	277	....	....	1,086
Railroad Retirement Board trust funds [1]	1,235	1,217	1,158	20,877
Other Federal funds	1,515	20	383	7,205
Other trust funds	–262	–307	–302	6,618
Unrealized discount [1]	–422	....	....	–2,230
Total, investment in Treasury debt [1]	**246,319**	**231,937**	**266,096**	**2,716,878**
Investment in agency debt:				
Office of Personnel Management:				
Civil Service retirement and disability trust fund [3]	–583	–51	....	....
Total, investment in agency debt	**–583**	**–51**	....	....
Total, investment in Federal debt [1]	**245,736**	**231,886**	**266,096**	**2,716,878**

Table 12–5. DEBT HELD BY GOVERNMENT ACCOUNTS [1]—Continued

(In millions of dollars)

Description	Investment or disinvestment (–)			Holdings end of 2002 estimate
	2000 Actual	2001 Estimate	2002 Estimate	
MEMORANDUM				
Investment by Federal funds (on-budget)	5,102	2,994	9,262	129,405
Investment by Federal funds (off-budget)	277	....	....	1,086
Investment by trust funds (on-budget)	88,444	70,116	82,283	1,248,064
Investment by trust funds (off-budget)	152,334	158,776	174,551	1,340,553
Unrealized discount [1]	–422	....	....	–2,230

[1] Debt held by Government accounts is measured at face value except for the Treasury zero-coupon bonds held by the Nuclear Waste Disposal fund and the Railroad Retirement Board (Rail Industry Pension Fund), which are recorded at market or redemption price; and the unrealized discount on Government account series, which is not distributed by account. Changes are not estimated in the unrealized discount. If recorded at face value, the debt held by the Nuclear Waste Disposal fund would be $8.3 billion higher than recorded in this table at the end of 2000 and the debt held by the Railroad Retirement Board would be $6.3 billion higher.

[2] Off-budget Federal entity.

[3] The FFB swapped Treasury securities with the Civil Service retirement and disability trust fund (CSRDF) in 1996 in exchange for agency securities having an equal present value. The result is shown in this table as agency debt held by CSRDF.

Technical note on measurement.—The Treasury securities held by Government accounts consist almost entirely of the Government account series. Most were issued at par value (face value), and the securities issued at a discount or premium were traditionally recorded at par in the OMB and Treasury reports on Federal debt. However, there are two kinds of exceptions. First, in 1991, Treasury began to issue zero-coupon bonds to a very few Government accounts. Because the purchase price is a small fraction of par value and the amounts are large, the holdings are recorded in table 12–5 at purchase price plus amortized discount. The only two Government accounts that currently hold zero-coupon bonds are the Nuclear Waste Disposal fund in the Department of Energy and the Rail Industry Pension fund under the Railroad Retirement Board. The total unamortized discount of these zero-coupon bonds was -$14.6 billion at the end of 2000.

Second, in September 1993 Treasury began to subtract the unrealized discount on other Government account series securities in calculating "net federal securities held as investments of government accounts." Unlike the discount recorded for zero-coupon bonds or for any debt held by the public, this discount is the amount at the time of issue and is not amortized over the term of the security. In table 12–5 it is shown as a separate item at the end of the table and not distributed by account. The amount was -$2.2 billion at the end of 2000.

Limitations on Federal Debt

Definition of debt subject to limit.—Statutory limitations have usually been placed on Federal debt. Until World War I, the Congress ordinarily authorized a specific amount of debt for each separate issue. Beginning with the Second Liberty Bond Act of 1917, however, the nature of the limitation was modified in several steps until it developed into a ceiling on the total amount of most Federal debt outstanding. This last type of limitation has been in effect since 1941. The limit currently applies to most debt issued by the Treasury since September 1917, whether held by the public or by Government accounts; and other debt issued by Federal agencies that, according to explicit statute, is guaranteed as to principal and interest by the United States Government.

The middle part of Table 12–3 compares total Treasury debt with the amount of Federal debt that is subject to the limit. Most of the Treasury debt not subject to limit was issued by the FFB (Federal Financing Bank). The FFB is authorized to have outstanding up to $15 billion of publicly issued debt, and this amount was issued several years ago to the Civil Service Retirement and Disability trust fund. The remaining Treasury debt not subject to limit consists almost entirely of silver certificates and other currencies no longer being issued.

The sole type of agency debt currently subject to the general limit is the debentures issued by the Federal Housing Administration, which were only $227 million at the end of 2000. Some of the other agency debt, however, is subject to its own statutory limit. For example, the Tennessee Valley Authority is limited to $30 billion of securities outstanding.

The comparison between Treasury debt and debt subject to limit also includes an adjustment for measurement differences in the treatment of discounts and premiums. As explained elsewhere in this chapter, debt securities may be sold at a discount or premium, and the measurement of debt may take this into account rather than recording the face value of the securities. However, the measurement differs between gross Federal debt (and its components) and the statutory definition of debt subject to limit. An adjustment is needed to derive debt subject to limit (as defined by law) from Treasury debt, and this adjustment is defined in footnote 8 to table 12–3. The amount is relatively small: $5.6 billion at the end of 2000 compared to the total discount (less premium) of $72.8 billion on all Treasury securities.

Changes in the debt limit.—The statutory debt limit has frequently been changed. Since 1960, Congress has passed 68 separate acts to raise the limit, extend the duration of a temporary increase, or revise the definition.[21] Major increases in the debt limit were enacted as part of the deficit reduction packages in the Omnibus Budget Reconciliation Acts of 1990 and 1993. Both changes in law were preceded by one or more temporary increases in the limit before agreement was reached on the debt and the deficit reduction measures together. Both increases in the debt limit were large enough to last over two years without a further change in law, the longest times without an increase since the period from 1946 to 1954.

The debt again approached the limit in 1995, and the limit again became part of the larger issue of deficit reduction. During an extended period of dispute between the President and the Congress, the Treasury Department took a number of administrative actions to keep within the limit and the Congress passed two acts providing temporary exemptions from the limit. In March 1996, although agreement had not been reached on deficit reduction, Congress passed an act that increased the debt limit from $4,900 billion to $5,500 billion.

During 1997, unlike 1996, the President and the Congress reached agreement on a plan to balance the budget. This included a sufficient increase in the debt limit to accommodate Government finances for longer than possible under the limit enacted in the previous year, even though the amount of debt at that time was considerably under the limit. As a result, the Balanced Budget Act of 1997, which the President signed into law on August 5, 1997, increased the debt limit to $5,950 billion. According to the estimates in tables 12–3 and 12–6, the debt limit will not be reached until 2008.

Federal funds financing and the change in debt subject to limit.—The change in debt held by the public, as shown in table 12–3, is determined primarily by the total Government deficit or surplus. The debt

[21] The Acts and the statutory limits since 1940 are enumerated in *Historical Tables, Budget of the United States Government,* table 7.3.

Table 12–6. FEDERAL FUNDS FINANCING AND CHANGE IN DEBT SUBJECT TO STATUTORY LIMIT

(In billions of dollars)

Description	2000 Actual	Estimate										
		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Federal funds surplus or deficit (–)	**2**	**49**	**–25**	**–45**	**–44**	**–57**	**–44**	**–27**	**–10**	**17**	**40**	**86**
Means of financing other then borrowing:												
Premiums paid (–) on buybacks of Treasury securities[1]	–6	–10	....	....	....	....	....	....	....	....	....	....
Change in:[2]												
Treasury operating cash balances	4	3	....	....	....	....	....	....	....	....	....	....
Checks outstanding, deposit funds, etc.[3]	–3	2	–1	....	....	....	....	....	....	....	....	....
Seignorage on coins	2	2	2	2	2	2	2	2	2	2	2	2
Less: Net financing disbursements												
Direct loan financing accounts	–22	–39	–4	–17	–18	–17	–16	–16	–16	–16	–16	–15
Guaranteed loan financing accounts	4	–1	–1	1	–*	–*	1	1	1	1	1	1
Total, means of financing other than borrowing	**–20**	**–42**	**–4**	**–15**	**–16**	**–15**	**–14**	**–13**	**–13**	**–13**	**–13**	**–13**
Decrease or increase (–) in Federal debt held by Federal funds	–5	–3	–9	....	....	....	....	....	....	....	....	....
Increase or decrease (–) in Federal debt not subject to limit	–1	–1	–*	–1	–1	–1	–1	–1	–*	–*	–*	–*
Total, requirement for Federal funds borrowing subject to debt limit	**–24**	**4**	**–39**	**–61**	**–61**	**–73**	**–58**	**–42**	**–24**	**4**	**27**	**73**
Increase in excess balances[4]	....	....	....	....	....	....	....	....	162	281	381	463
Adjustment for change in discount and premium[5]	–*	....	....	....	....	....	....	....	....	....	....	....
Increase in debt subject to limit	**24**	**–4**	**39**	**61**	**61**	**73**	**58**	**42**	**185**	**277**	**355**	**390**
ADDENDUM												
Debt subject to statutory limit[6]	5,592	5,588	5,627	5,688	5,749	5,822	5,881	5,922	6,108	6,385	6,740	7,130

* $500 million or less

[1] This table includes estimates for Treasury buybacks of outstanding securities only through FY 2001. These estimates assume the Treasury will buy back $35 billion (face value) of securities in FY 2001. The premium paid on buybacks are based on experience to date and the interest rates in the economic assumptions.

[2] A decrease in the Treasury operating cash balances (which is an asset) would be a means of financing the deficit and therefore has a positive sign An Increase in checks outstanding or deposit fund balances (which are liabilities) would also be a means of financing the deficit and would therefore also have a positive sign.

[3] Besides checks outstanding and deposit funds, includes accrued interest payable on Treasury debt, miscellaneous liability accounts, allocations of special drawing rights, and as an offset, cash and monetary assets other than the Treasury operating cash balance, miscellaneous asset accounts, and profit on the sale of gold.

[4] The amount of the unified budget surplus that is available to repay debt held by the public is estimated to be more than the amount of debt that is available to be redeemed in 2008 and subsequent years The difference is assumed to be held as "excess balances". ("Excess" means in excess of the amounts held for operational and programmatic purposes).

[5] Consists of increase in the amount of unamortized discount (less premium) on public issues of Treasury notes and bonds (other than zero-coupon bonds) and unrealized discount on Government account series securities.

[6] The statutory debt limit is $5,950 billion.

subject to limit, however, includes not only debt held by the public but also debt held by Government accounts. The change in debt subject to limit is therefore determined both by the factors that determine the total Government deficit or surplus and by the factors that determine the change in debt held by Government accounts. During 2008–11, the change in debt held by the public and the change in debt subject to limit are both affected by the limited amount of debt that is available to be redeemed.

The budget is composed of two groups of funds, Federal funds and trust funds. The Federal funds, in the main, are derived from tax receipts and borrowing and are used for the general purposes of the Government. The trust funds, on the other hand, are financed by taxes or other collections earmarked by law for specified purposes, such as paying social security benefits or making grants to State governments for highway construction.[22]

A Federal funds deficit must generally be financed by borrowing, either by selling securities to the public or by issuing securities to Government accounts that are not within the Federal funds group. Federal funds borrowing consists almost entirely of the Treasury issuing securities that are subject to the statutory debt limit. Trust fund surpluses are almost entirely invested in these securities, and trust funds hold most of the debt held by Government accounts. Very little debt subject to statutory limit is issued for other reasons. Under ordinary circumstances, the change in debt subject to limit is therefore determined primarily by the Federal funds deficit, which is equal to the difference between the total Government surplus and the trust fund surplus. The only major exception, as explained below, is when excess balances are accumulated because of the limited amount of debt available to be redeemed.

Table 12–6 derives the change in debt subject to limit. In 2002 the Federal funds deficit is estimated to be $25 billion, and other factors increase the requirement to borrow subject to limit by $14 billion. The largest of these other factors ($9 billion) is investment in Treasury securities by revolving funds and special funds in the Federal funds group. The next largest factor ($4 billion) is the net financing disbursements of the direct loan financing accounts. As explained in an earlier section, they are excluded from the budget by law because they do not represent a cost to the Government, but they have to be financed and in most years they are sizable. As a net result of all these factors, debt subject to limit is estimated to increase by $39 billion, in contrast to a $227 billion decrease in debt held by the public.

The change in debt subject to limit during 2008–11 is determined not only by the factors above but also by the availability of publicly held debt that can be redeemed. Because the unified budget surplus is more than the estimate of the debt that can be redeemed, as explained previously, additional amounts of publicly held debt remain outstanding beyond the amounts needed for the Government's financing. The difference is accumulated as excess balances.[23] The additional amount of publicly held debt is subject to the limit. Therefore, because publicly held debt is higher than it would have been if the unified budget surplus could have been fully used to reduce debt, the debt subject to limit is also higher. This effect is shown in table 12–6 by the line item "increase in excess balances," which raises the amount of debt subject to statutory limit.

The debt subject to limit increased by a small amount in 2000. It is estimated to decrease by a very small amount in 2001 and then increase by small amounts each year during 2002–07. During 2000, the Federal funds had a surplus, but the surplus was small and was outweighed by the other factors that determine debt subject to limit; during 2002–07, the Federal funds have a deficit. The largest other factor during most of these years is the net financing disbursements of the direct loan financing accounts. As a result, while debt held by the public decreases by $2,031 billion during 2000–07, debt subject to limit increases by $355 billion.

During 2008–11 the Federal funds have surpluses in three of the four years. However, due to the accumulation of excess balances ($1,287 billion during the four years), debt subject to limit increases by a large amount, $1,208 billion. Debt held by the public decreases by the amount of the redeemable debt, which is $444 billion over these years.

Debt Held by Foreign Residents

During most of American history, the Federal debt was held almost entirely by individuals and institutions within the United States. In the late 1960s, as shown in table 12–7, foreign holdings were just over $10.0 billion, less than 5 percent of the total Federal debt held by the public.

[22] For further discussion of the trust funds and Federal funds groups, see chapter 15, "Trust Funds and Federal Funds."

[23] As defined previously, the term "excess" means that the balances are in excess of the amounts held for operational and programmatic purposes.

Table 12–7. FOREIGN HOLDINGS OF FEDERAL DEBT

(Dollar amounts in billions)

Fiscal year	Debt held by the public			Borrowing from the public		Interest on debt held by the public		
	Total	Foreign [1]	Percentage foreign	Total [2]	Foreign [1]	Total [3]	Foreign [4]	Percentage foreign
1965	260.8	12.3	4.7	3.9	0.3	9.6	0.5	4.9
1966	263.7	11.6	4.4	2.9	–0.7	10.1	0.5	5.1
1967	266.6	11.4	4.3	2.9	–0.2	11.1	0.6	5.1
1968	289.5	10.7	3.7	22.9	–0.7	11.9	0.7	5.6
1969	278.1	10.3	3.7	–11.4	–0.4	13.5	0.7	5.3
1970	283.2	14.0	5.0	5.1	3.8	15.4	0.8	5.5
1971	303.0	31.8	10.5	19.8	17.8	16.2	1.3	7.9
1972	322.4	49.2	15.2	19.3	17.3	16.8	2.4	14.2
1973	340.9	59.4	17.4	18.5	10.3	18.7	3.2	17.2
1974	343.7	56.8	16.5	2.8	–2.6	22.7	4.1	17.9
1975	394.7	66.0	16.7	51.0	9.2	25.0	4.5	18.1
1976	477.4	69.8	14.6	82.7	3.8	29.3	4.4	15.1
TQ	495.5	74.6	15.1	18.1	4.9	7.8	1.2	14.9
1977	549.1	95.5	17.4	53.6	20.9	33.8	5.1	15.0
1978	607.1	121.0	19.9	58.0	25.4	40.2	7.9	19.5
1979 [5]	640.3	120.3	18.8	33.2	–0.7	49.9	10.7	21.5
1980	711.9	121.7	17.1	71.6	1.4	62.8	12.0	19.1
1981	789.4	130.7	16.6	77.5	9.0	81.7	16.4	20.1
1982	924.6	140.6	15.2	135.2	9.9	101.2	18.7	18.5
1983	1,137.3	160.1	14.1	212.7	19.5	111.6	19.2	17.2
1984	1,307.0	175.5	13.4	169.7	15.4	133.5	20.3	15.2
1985 [5]	1,507.4	222.9	14.8	200.3	47.4	152.9	23.0	15.1
1986	1,740.8	265.5	15.3	233.4	42.7	159.3	24.2	15.2
1987	1,889.9	279.5	14.8	149.2	14.0	160.4	25.7	16.0
1988	2,051.8	345.9	16.9	161.9	66.4	172.3	29.9	17.4
1989	2,191.0	394.9	18.0	139.1	49.0	189.0	37.1	19.6
1990 [5]	2,411.8	440.3	18.3	220.9	45.4	202.4	40.2	19.9
1991	2,689.3	477.3	17.7	277.5	37.0	214.8	41.3	19.2
1992	3,000.1	535.2	17.8	310.8	57.9	214.5	39.3	18.3
1993	3,248.8	591.3	18.2	248.7	56.1	210.2	39.0	18.6
1994	3,433.4	655.8	19.1	184.7	64.5	210.6	41.9	19.9
1995 [5]	3,604.8	800.4	22.2	171.3	144.6	239.2	54.5	22.8
1996	3,734.5	978.1	26.2	129.7	177.7	246.6	63.7	25.8
1997	3,772.8	1,218.2	32.3	38.3	240.0	250.8	84.2	33.6
1998	3,721.6	1,216.9	32.7	–51.2	–1.2	250.0	91.3	36.5
1999 [5]	3,632.9	1,281.4	35.3	–88.7	64.5	234.9	92.7	39.5
2000	3,410.1	1,225.2	35.9	–222.8	–56.2	233.1	105.5	45.3

[1] Estimated by Treasury Department. These estimates exclude agency debt, the holdings of which are believed to be small. The data on foreign holdings are recorded by methods that are not fully comparable with the data on debt held by the public. Projections of foreign holdings are not available.
[2] Borrowing from the public is defined as equal to the change in debt held by the public from the beginning of the year to the end, except to the extent that the amount of debt is changed by reclassification.
[3] Estimated as interest on Treasury debt securities less ''interest received by trust funds'' (subfuction 901 less subfunction 902 and 903). Does not include the comparatively small amount of interest on agency debt or the offsets for interest on Treasury debt received by other Government accounts (revolving funds and special funds).
[4] Estimates by the Bureau of Economic Analysis, Department of Commerce. These estimates include small amounts of interest from other sources, including the debt of Government-sponsored enterprises, which are not part of the Federal Government.
[4] Benchmark revisions reduced the estimated foreign holdings of the Federal debt as of December 1978; increase the estimated foreign holdings as of December 1984 and December 1989; and reduced the estimated holdings as of December 1994. As a result, the data on foreign holdings in different time periods are not strictly comparable, and the ''borrowing'' from foreign residents in 1979, 1985, 1989, and 1995 reflects the benchmark revision as well as the net purchase of Federal debt securities. A conceptual revision likewise increased the estimated foreign holdings as of 1999, and the ''borrowing'' from foreign residents in 1999 reflects this revision as well as the net purchases of Federal debt securities.

Foreign holdings began to grow significantly starting in 1970. This increase has been almost entirely due to decisions by foreign governments, corporations, and individuals, rather than the direct marketing of these securities to foreign residents. At the end of fiscal year 2000 foreign holdings of Treasury debt were $1,225 billion, which was 36 percent of the total debt held by the public.[24] Foreign central banks owned 48 percent of the Federal debt held by foreign residents; private investors owned nearly all the rest. All the Federal debt held by foreign residents is denominated in dollars.

Although the amount of Federal debt held by foreign residents grew greatly over this period, the proportion they own, after growing abruptly in the very early 1970s, did not change much again until the mid-1990s. During 1995–97, however, foreign holdings increased on average by around $200 billion each year, considerably more than total Federal borrowing from the pub-

[24] The amounts of debt reported by the Bureau of Economic Analysis, Department of Commerce, are different, but similar in size, due to a different method of valuing the securities.

lic.[25] As a result, the Federal debt held by individuals and institutions within the United States decreased in absolute amount during those years, and the percentage of Federal debt held by foreign residents grew from 19 percent at the end of 1994 to 32 percent at the end of 1997. The rapid growth of foreign debt holdings ceased in 1998 and turned into a slight decline, one of the rare years with a decrease since 1970. In 1999, the debt held by foreigners increased considerably again, but in 2000 it fell. Total debt held by the public decreased in all three years, and in 1998 and 2000 it deceased at a faster rate than the decline in foreign holdings. As a result, the percentage held by foreigners continued to rise.

Foreign holdings of Federal debt are a little less than one-fifth of the foreign-owned assets in the United States. The foreign purchases of Federal debt securities do not measure the full impact of the capital inflow from abroad on the market for Federal debt securities. The capital inflow supplies additional funds to the credit market generally, and thus affects the market for Federal debt. For example, the capital inflow includes deposits in U.S. financial intermediaries that themselves buy Federal debt.

[25] Table 12–7 shows foreign holdings increasing by only $144.6 billion in 1995. However, as explained in footnote 5 to that table, a benchmark revision reduced the estimated holdings as of December 1994 (by $47.9 billion). Because debt estimates were not revised retroactively, the increase in 1995 was more than the table shows. Before the benchmark revision, the increase was estimated to be $192.6 billion.

Federal, Federally Guaranteed, and Other Federally Assisted Borrowing

The effect of the Government on borrowing in the credit market arises not only from its own borrowing to finance Federal operations but also from its assistance to certain borrowing by the public. The Government guarantees borrowing by private and other non-Federal lenders, which is another term for guaranteed lending. In addition to its guarantees, it has established private corporations called "Government-sponsored enterprises," or GSEs, to provide financial intermediation for specified public purposes; it exempts the interest on most State and local government debt from income tax; and it insures the deposits of banks and thrift institutions, which themselves make loans.

Federal credit programs and other forms of assistance are discussed in chapter 8, "Credit and Insurance." Detailed data are presented in tables at the end of that chapter. Tables 8–11 and 8–12 in chapter 8 summarize GSE borrowing and lending.