

15. FEDERAL BORROWING AND DEBT

Debt is the largest legally binding obligation of the Federal Government. At the end of 2003, the Government owed \$3,914 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 \$162 billion of interest on this debt.

The budget shifted from surplus to deficit in 2002, and the deficit then grew sharply in 2003. This was primarily because of the recession, the prolonged de-

cline in the stock market, increased spending in response to terrorism, and several measures of tax relief that were intended to stimulate the economy during the recession and provide an impetus for growth well into the future. As a result, the deficit is estimated to rise to a higher level in 2004 before declining. Debt held by the public as a percentage of GDP increases by small amounts through 2005 and then changes little through 2009.

Table 15-1. TRENDS IN FEDERAL DEBT HELD BY THE PUBLIC

(Dollar amounts in billions)

Fiscal Year	Debt held by the public:		Debt held by the public as a percent of:		Interest on the debt held by the public as a percent of: ³	
	Current Dollars	FY 2000 dollars ¹	GDP	Credit market debt ²	Total outlays	GDP
1946	241.9	1,821.2	108.6	n.a	7.4	1.8
1950	219.0	1,339.6	80.2	53.3	11.4	1.8
1955	226.6	1,217.1	57.2	43.2	7.6	1.3
1960	236.8	1,127.8	45.6	33.8	8.5	1.5
1965	260.8	1,161.6	37.9	26.9	8.1	1.4
1970	283.2	1,047.7	28.0	20.8	7.9	1.5
1975	394.7	1,074.6	25.3	18.4	7.5	1.6
1980	711.9	1,340.7	26.1	18.5	10.6	2.3
1985	1,507.3	2,164.7	36.3	22.3	16.2	3.7
1986	1,740.6	2,443.0	39.5	22.6	16.1	3.6
1987	1,889.8	2,584.8	40.6	22.3	16.0	3.4
1988	2,051.6	2,720.6	40.9	22.2	16.2	3.4
1989	2,190.7	2,796.4	40.6	22.0	16.5	3.5
1990	2,411.6	2,968.1	42.0	22.6	16.1	3.5
1991	2,689.0	3,189.8	45.3	24.1	16.2	3.6
1992	2,999.7	3,471.1	48.1	25.7	15.5	3.4
1993	3,248.4	3,675.5	49.4	26.6	14.9	3.2
1994	3,433.1	3,802.7	49.3	26.8	14.4	3.0
1995	3,604.4	3,910.2	49.2	26.7	15.8	3.3
1996	3,734.1	3,974.5	48.5	26.3	15.8	3.2
1997	3,772.3	3,946.4	46.1	25.3	15.7	3.1
1998	3,721.1	3,846.1	43.1	23.4	15.1	2.9
1999	3,632.4	3,705.7	39.8	21.4	13.8	2.6
2000	3,409.8	3,409.8	35.1	19.1	13.0	2.4
2001	3,319.6	3,243.7	33.1	17.5	11.6	2.1
2002	3,540.4	3,399.3	34.1	17.5	8.9	1.7
2003	3,913.6	3,697.3	36.1	17.8	7.5	1.5
2004 estimate	4,420.8	4,122.3	38.6	n.a	7.1	1.4
2005 estimate	4,791.9	4,413.2	39.8	n.a	7.9	1.6
2006 estimate	5,074.1	4,604.0	40.1	n.a	9.1	1.8
2007 estimate	5,333.0	4,759.9	40.2	n.a	10.1	2.0
2008 estimate	5,589.4	4,894.9	40.0	n.a	10.7	2.1
2009 estimate	5,844.4	5,016.3	39.8	n.a	11.2	2.2

n.a. = not available

¹Debt in current dollars deflated by the GDP chain-type price index with fiscal year 2000 equal to 100.

²Total credit market debt owed by domestic nonfinancial sectors, modified in some 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.

³Interest on debt held by the public is estimated as the interest on Treasury debt securities less the "interest received by trust funds" (subfunction 901 less subfunctions 902 and 903). 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).

Trends in Debt Since World War II

Table 15–1 depicts trends in Federal debt held by the public from World War II to the present and estimates from the present through 2009. (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 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 80.2 percent of GDP to 25.3 percent, and from 53.3 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 declined markedly relative to both GDP and total credit market debt. It fell steadily from 49.4 percent of GDP in 1993 to 33.1 percent in 2001; and it fell more unevenly from 26.6 percent of total credit market debt in 1993 to 17.5 percent in 2001. Interest on this debt, relative to total outlays and GDP, declined as well. Interest as a share of outlays peaked at 16.5 percent in 1989 and then fell to 11.6 percent by 2001; interest as a percentage of GDP fell in a similar proportion.

The recent economic conditions and response to terrorism have stopped the downward trend in debt relative to GDP. The recession, the initially slow recovery, and the decline in the stock market reduced tax receipts; tax relief had the same effect; and spending increased for war and homeland security. As a result of the ensuing deficits, table 15–1 shows a rise in debt held by the public throughout the projection period. Even during this period, however, the increase in debt is estimated to slow down. Debt continues to rise by small amounts as a percentage of GDP in 2004 and 2005 and then changes little through 2009. By that year, debt is estimated to equal 39.8 percent of GDP.

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.¹ 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.”²

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. Regardless of whether 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 credit market sectors for financial resources in the credit market. 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.³

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 that is credited to these funds accounts for the fact that some earmarked taxes and user fees will be spent at a later time than when the funds receive the monies. The debt securities are a liability of the

¹Debt 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 book value equals the sales price. Subsequently, it equals the sales price plus the amount of the discount that has been amortized up to that time. In equivalent terms, the book 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 revised. In 1997 Treasury began to sell inflation-indexed notes and bonds. The book value of these securities includes a periodic adjustment for inflation.

²The 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 15–3 but also the debt of the Government-sponsored enterprises listed in table 7–9 at the end of chapter 7 and certain Government-guaranteed securities.

³The Federal subsector of the national income and product accounts provides a measure of “net government saving” (based on current expenditures and current receipts) 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 subsector and its differences from the budget are discussed in chapter 13 of this volume, “National Income and Product Accounts.”

Table 15-2. FEDERAL GOVERNMENT FINANCING AND DEBT

(In billions of dollars)

	2003 Actual	Estimate					
		2004	2005	2006	2007	2008	2009
Financing:							
Unified budget deficit (-)	-375.3	-520.7	-363.6	-267.6	-241.3	-239.0	-237.1
Financing other than the change in debt held by the public:							
Net purchases (-) of non-Federal securities by the National Railroad Retirement Investment Trust	-20.2	-0.7	0.1	0.1	0.3	0.3	0.5
Changes in: ¹							
Treasury operating cash balance	25.9	-*	.....	.....	.....	.....	.....
Compensating balances ²	-5.2	22.2	.....	.....	.....	.....	.....
Checks outstanding, etc. ³	8.2	.....	.....	.....	.....	.....	.....
Seigniorage on coins	0.6	0.6	0.7	0.7	0.7	0.7	0.7
Less: Net financing disbursements:							
Direct loan financing accounts	-6.5	-11.8	-11.5	-18.8	-20.1	-20.3	-20.7
Guaranteed loan financing accounts	-0.7	3.3	3.2	3.4	1.5	1.8	1.6
Total, financing other than the change in debt held by the public	2.1	13.6	-7.5	-14.6	-17.6	-17.4	-17.9
Total, requirement to borrow from the public	-373.2	-507.2	-371.1	-282.3	-258.9	-256.4	-255.0
Change in debt held by the public	373.2	507.2	371.1	282.3	258.9	256.4	255.0
Change in Debt Subject to Statutory Limitation:							
Change in debt held by the public	373.2	507.2	371.1	282.3	258.9	256.4	255.0
Change in debt held by Government accounts	188.4	219.3	275.4	311.2	332.6	356.8	378.0
Change in other factors	14.6	0.3	0.5	0.2	0.5	0.7	0.7
Total, change in debt subject to statutory limitation	576.2	726.7	647.0	593.6	592.1	613.8	633.7
Debt Subject to Statutory Limitation, End of Year:							
Debt issued by Treasury	6,732.8	7,459.5	8,106.5	8,700.1	9,292.2	9,906.0	10,539.7
Adjustment for Treasury debt not subject to limitation and agency debt subject to limitation	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
Adjustment for discount and premium ⁴	5.1	5.1	5.1	5.1	5.1	5.1	5.1
Total, debt subject to statutory limitation ⁵	6,737.6	7,464.4	8,111.4	8,705.0	9,297.0	9,910.9	10,544.6
Debt Outstanding, End of Year:							
Gross Federal debt: ⁶							
Debt issued by Treasury	6,732.8	7,459.5	8,106.5	8,700.1	9,292.2	9,906.0	10,539.7
Debt issued by other agencies	27.2	27.0	26.5	26.3	25.7	25.1	24.4
Total, gross Federal debt	6,760.0	7,486.4	8,132.9	8,726.4	9,317.9	9,931.1	10,564.1
Held by:							
Debt held by Government accounts	2,846.4	3,065.7	3,341.1	3,652.2	3,984.8	4,341.6	4,719.7
Debt held by the public ⁷	3,913.6	4,420.8	4,791.9	5,074.1	5,333.0	5,589.4	5,844.4

* \$50 million or less.

¹ A decrease in the Treasury operating cash balance or compensating balances (which are assets) would be a means of financing a deficit and therefore has a positive sign. An increase in checks outstanding (which is a liability) would also be a means of financing a deficit and therefore also has a positive sign.² Compensating balances are non-interest bearing Treasury bank deposits that Treasury mainly uses to compensate banks for collecting tax and non-tax receipts under financial agency agreements. Most of the balances at the end of 2003 were required to be invested in nonmarketable Depository Compensation Securities issued by the Treasury; the rest of the balances, and the entire amount in previous years, was invested in the way that the banks decide.³ Besides checks outstanding, 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 and compensating balances), miscellaneous asset accounts, and profit on sale of gold.⁴ 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.⁵ The statutory debt limit is \$7,384 billion.⁶ Treasury securities held by the public and zero-coupon bonds held by Government accounts are almost all measured at sales price plus amortized discount or less amortized premium. Agency debt securities are almost all measured at face value. Treasury securities in the Government account series are otherwise measured at face value less unrealized discount (if any).⁷ At the end of 2003, the Federal Reserve Banks held \$656.1 billion of Federal securities and the rest of the public held \$3,257.5 billion. Debt held by the Federal Reserve Banks is not estimated for future years.

general fund to the fund that holds the securities and are a mechanism for that fund to accumulate interest on its balances. These accounting balances generally provide the fund with authority to draw upon the U.S. Treasury in later years to make future payments on its behalf to the public. Public policy may 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 is not financed by private saving and does not 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, which itself obtains real resources by taxation and borrowing; and its cur-

rent interest does not have to be financed by taxes or other means.

Furthermore, the debt held by Government accounts does not represent the estimated amount of the account's obligations or responsibilities to make future payments to 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 estimated future benefits (or future benefits less taxes) for the current participants in the program; nor does it represent the actuarial present value of estimated future benefits (or future benefits less taxes) for the current participants plus the estimated future participants over some stated time period. The future transactions of Federal social insurance and employee retirement programs, which own 92 percent of the debt held by Government accounts, are important in their own right and need to be analyzed separately. This can be done through information published in the actuarial and financial reports for these programs.⁴

This budget uses a variety of information sources to analyze the condition of Social Security and Medicare, the Government's two largest social insurance programs. Chapter 12 of the present volume, "Stewardship," projects Social Security and Medicare outlays to 2080 relative to GDP. It also discusses in some detail the actuarial projections prepared for the Social Security and Medicare trustees reports to evaluate the long-run actuarial deficiency or shortfall in these programs. A chapter in the main volume of the budget, "Ensuring Fiscal Responsibility," uses the same data in less detail to explain the long-run fiscal problems of Social Security and Medicare revealed by these projections. The actuarial shortfalls are very different in concept and much larger in size than the amount of Treasury debt that these programs hold.

For all these reasons, debt held by the public is 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 liabilities are incurred when the Government guarantees the payment of interest and principal on private loans; and liabilities for future pension and retiree health 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 12 of this volume, "Stewardship." The

⁴Extensive 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 major Federal employee retirement funds. The actuarial estimates for these and other programs are summarized in the *Financial Report of the United States Government*, prepared annually by the Treasury Department.

different types of liabilities are reported annually in the financial statements of Federal agencies and in the *Financial Report of the United States Government*, prepared by the Treasury Department.

Government Surpluses or Deficits and the Change in Debt

Table 13–2 summarizes Federal borrowing and debt from 2003 through 2009. In 2003 the Government borrowed \$373 billion, so the debt held by the public increased to \$3,914 billion. The debt held by Government accounts increased \$188 billion, and gross Federal debt increased by \$562 billion to \$6,760 billion.

Debt held by the public. The Federal Government primarily finances deficits by borrowing from the public, and it primarily uses surpluses to repay debt held by the public. Table 13–2 shows the relationship between the Federal deficit or surplus and the change in debt held by the public. The borrowing or debt repayment 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 11 of this volume, "Economic Assumptions."

The total or unified budget surplus consists of two parts: the on-budget surplus or deficit; 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.⁵ The off-budget totals are virtually the same as Social Security, which had a large surplus in 2003 and is estimated to have large and growing surpluses throughout the projection period. The on-budget and off-budget surpluses or deficits are added together to determine the Government's financing needs.

The Government's need to borrow, or its ability to repay debt held by the public, has always depended on several other factors besides the unified budget surplus or deficit, such as the change in the Treasury operating cash balance. As shown in table 15–2, 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 need to borrow. (An increase in its need to borrow is represented by a negative sign, like the deficit.) Some of these individual factors themselves may be either positive or negative, and some of them vary considerably in size from year to year. In 2003 the deficit was \$375 billion and the "financing other than the change in debt held by the public" was \$2 billion. As a result, the Government borrowed \$373 billion from the public.

Over the long-run, it is a good approximation to say that "the deficit is financed by borrowing from the public" or "the surplus is used to repay debt held by the

⁵For further explanation of the off-budget Federal entities, see chapter 22, "Off-Budget Federal Entities and Non-Budgetary Activities."

public.” Over the last 20 years, the cumulative deficit was \$2,584 billion and the increase in debt held by the public was \$2,776 billion. The other factors added a total of \$192 billion of borrowing, an average of \$10 billion per year. The variation was wide, ranging from additional borrowing (or lower repayment) of \$63 billion to reduced borrowing of \$19 billion.

In individual years it is often a good approximation to say that the deficit and borrowing (or the surplus and debt repayment) are about the same. In 2003, as shown in table 15–2, the difference was only \$2 billion. However, a combination of events may produce a relatively large total for the other factors in a particular year. In 2002, for example, several of the other factors were large, and all added to the need for borrowing. In combination, they accounted for \$63 billion of the \$221 billion increase in debt held by the public, which was an exceptionally large proportion. Four specific factors have recently been especially important.

Change in Treasury operating cash balance.—The operating cash balance decreased \$26 billion during 2003, partly because it was higher than planned at the end of the previous year. It is estimated to be essentially the same at the end of 2004. Changes in the operating cash balance, while occasionally large, are inherently limited. Decreases in cash—a means of financing the Government—are limited by the amount of past accumulations, which themselves required financing when they were built up. Increases are limited because it is more efficient to repay debt.

Change in compensating balances.—Treasury has long used compensating balances to compensate banks for collecting tax and non-tax receipts and providing other services under financial agency agreements. Under these agreements, Treasury deposited a non-interest bearing compensating balance with a bank. The imputed earnings from the compensating balance, calculated at the 91-day Treasury bill rate, were the source of the bank’s compensation for performing the required services. Treasury determined the size of the deposit by balancing the value of the services provided with the imputed earnings of the compensating balance. Banks could use the compensating balances on deposit to make loans or buy investments, and all compensating balances were fully collateralized.

The traditional compensating balances presented difficulties for cash and debt management in recent years. First, any decrease in the interest rate that was applied to compensating balances required Treasury to increase the size of compensating balances on deposit to pay for the services it needed. For example, because interest rates decreased so much during 2002, Treasury had to increase its compensating balances by \$14 billion in that year. Second, when the debt outstanding reached the statutory debt limit, Treasury had to draw down the compensating balances and then make up for this action afterwards by increasing the balances to unusually high levels. These actions were inefficient and disruptive, and they created financial uncertainty for Treasury and the banks.

In large part because of these difficulties, the 2004 budget proposed legislation that would allow Treasury to replace compensating balances by a permanent indefinite appropriation to pay banks directly for their services as depositories and financial agents. This also would simplify Treasury’s cash and debt management, would ensure that payments to financial institutions for services were made in a more predictable manner, and could result in budget savings.

As an interim step, before the legislation could be enacted, Treasury began to replace its traditional compensating balances with depository compensation securities (DCS) in July 2003. The banks hold DCS instead of other acceptable investments, and the Treasury balances are secured by the DCS. The cost of the services provided to Treasury is part of the interest on the debt under either system. Under the traditional system, Treasury paid interest to the general public on the marketable securities sold to acquire the compensating balances; under the interim system, Treasury pays interest to banks on the DCS. By the end of December 2003, the traditional compensating balances had been replaced by DCS.

Congress authorized a permanent indefinite appropriation to pay for the services in October 2003 in the Check Clearing for the 21st Century Act (P.L. 108–100). An appropriation is included in the conference version of the Omnibus Appropriation bill for 2004. At such time as this bill is enacted, Treasury plans to replace the DCS by direct payments as soon as practicable. The total compensating balances at the end of 2003 under both systems were \$22 billion, and table 15–2 estimates that they will be drawn down to zero during 2004.

Net purchases of non-Federal securities by the National Railroad Retirement Investment Trust.—This trust fund was established by the Railroad Retirement and Survivors’ Improvement Act of 2001. Most of the assets in the Railroad Retirement Board trust funds were transferred to the new trust fund in 2003, which invests its assets primarily in private stocks and bonds. The Act ordered special treatment of the purchase or sale of non-Federal assets by this trust fund, treating such purchases as a means of financing rather than an outlay. Therefore, the increased need to borrow from the public to finance the purchase of non-Federal assets is part of the “financing other than the change in debt held by the public” rather than included as an increase in the deficit. This increased borrowing and publicly held debt by \$20 billion in 2003. Net purchases or sales in subsequent years are estimated to be relatively small.⁶

Net financing disbursements of the direct loan and guaranteed loan financing accounts.—The financing accounts were created by the Federal Credit Reform Act of 1990. Budget outlays for direct loans and loan guarantees consist of the estimated subsidy cost of the loans or guarantees at the time when the direct loans or

⁶The budget treatment of this fund is further discussed in chapter 25, “The Budget System and Concepts.”

guaranteed loans are disbursed. The cash flows to and from the public resulting from these loans and guarantees—the disbursement and repayment of loans, the default payments on loan guarantees, the collections of interest and fees, and so forth—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.⁷

The financing accounts also include intra-governmental transactions. In particular, they receive payment from the credit program accounts for the costs of new direct loans and loan guarantees. These collections are offset against the gross disbursements of the financing accounts in determining the accounts' total net cash flows. The total net cash flows of the financing accounts, consisting of transactions with both the public and the budgetary accounts, are called "net financing disbursements." They are defined in the same way as the "outlays" of a budgetary account and therefore affect the requirement for borrowing from the public in the same way as the deficit.

The result is that the intragovernmental transactions of the financing accounts do not affect Federal borrowing from the public. Although the deficit changes because of the budget's outlay or receipt, the net financing disbursement changes in an equal amount with the opposite sign, so the effects cancel out. 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. Likewise, financing account receipts from the public can be used to finance the payment of the Government's obligations, and therefore they reduce the requirement for Federal borrowing from the public in the same way as an increase in budget receipts.

The impact of the financing accounts became large in the mid-1990s. In 2003 they required \$7 billion of financing, which increased borrowing by this amount. They are estimated to require additional financing of \$8 billion in 2005 and from \$15 billion to \$19 billion in each of the following four years. A major part is normally due to the direct student loan program. 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.

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 95 percent of the total Federal debt held by Government accounts at the end of 2003. In 2003, for example, the total trust fund

surplus was \$178 billion, and Government accounts invested \$188 billion in Federal securities. A major reason for the larger investment is that some special funds and revolving funds, as well as the trust funds, invest in Federal debt. This was partially offset because, as explained above, the National Railroad Retirement Investment Trust invested \$20 billion in non-Federal assets. This offset is expected to be relatively minor in the future. Another factor is that the trust funds may change the amount of their cash assets not currently invested. The debt held in major accounts and the annual investments are shown in table 15–4.

Agency Debt

Several Federal agencies, shown in table 15–3, sell debt securities to the public and at times in the past have sold securities to other Government accounts. During 2003, agencies repaid \$0.2 billion of debt held by the public. Agency debt is less than one percent of Federal debt held by the public. Agencies are estimated to repay small amounts of debt in 2004 and 2005.

The reasons for issuing agency debt differ considerably from one agency to another. The predominant agency borrower is the Tennessee Valley Authority, which had borrowed \$26 billion from the public as of the end of 2003, or 96 percent of the total debt of all agencies. In some earlier periods, other agencies accounted for a much higher proportion of agency debt than they do now. TVA sells debt primarily to finance capital expenditures.

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 selling securities to the public and then paying the bills by disbursing the cash borrowed, so the transaction 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.⁸

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 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

⁷The Federal Credit Reform Act of 1990 (sec. 505(b)) requires that the financing accounts be non-budgetary. As explained in chapter 22, "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 25 of this volume, "The Budget System and Concepts," and the other references cited in chapter 22.

⁸For an explanation of the monetary credits issued by the Federal Communications Commission (FCC), see chapter 25 of this volume, "The Budget System and Concepts." The budgetary treatment of some of these securities and other securities inherent in the way programs operate 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.

Table 15-3. AGENCY DEBT
(In millions of dollars)

	Borrowing or repayment (-) of debt			Debt end of 2005 estimate
	2003 actual	2004 estimate	2005 estimate	
Borrowing from the public:				
Housing and Urban Development:				
Federal Housing Administration	-19			279
Small Business Administration:				
Participation certificates: Section 505 development company				7
Architect of the Capitol	-3	-3	-3	160
Farm Credit System Financial Assistance Corporation	-450		-325	
Federal Communications Commission	-59	-56		
National Archives	-7	-8	-8	235
Tennessee Valley Authority:				
Bonds and Notes	-385	-1,621	-65	23,190
Lease/leaseback obligations	677	-69	-35	1,134
Prepayment obligations	47	1,469	-66	1,450
Total, borrowing from the public	-198	-288	-502	26,455
Total, agency borrowing	-198	-288	-502	26,455

Enforcement Act of 1990. Several changes were made. Among other decisions, it was determined that outlays for a lease-purchase without substantial private 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 according to an amortization schedule. This rule was effective starting in 1991.⁹ The new budgetary treatment was reviewed in connection with the Balanced Budget Act of 1997. Some clarifications were made, but no substantive changes.

The Tennessee Valley Authority has traditionally financed its capital construction by selling bonds and notes to the public. Starting in 2000, it has also employed two types of alternative financing methods. The first type of alternative financing method was lease/leasebacks. TVA signed contracts to lease some recently constructed power generators to private investors and simultaneously lease them back. It received a lump sum for leasing out its assets, and then leased them back at fixed annual payments for a set number of years. TVA retains substantially all of the economic benefits and risks related to ownership of the assets, and the lease/leasebacks are reported as liabilities on TVA's balance sheet under generally accepted accounting principles.

The Office of Management and Budget determined that the TVA lease/leasebacks are a means of financing the acquisition of assets owned and used by the Government. The arrangement is at least as governmental as a "lease-purchase without substantial private risk."

⁹The rule addressed all lease-purchases and capital leases from the public, not just those without substantial private risk. For all such contracts, the rule requires that budget authority be recorded up front for the present value of the lease payments. See OMB Circular No. A-11, Appendix B. Also see the section on outlays in chapter 25, "The Budget System and Concepts."

The budget therefore records the upfront cash proceeds from the lease as borrowing from the public, not offsetting collections. Agency debt in the form of a lease obligation is recorded as a type of borrowing. The same budget treatment was applied to the lease/leaseback of qualified technological equipment in 2003. The total amount of the lease obligations beginning in 2000 is shown in table 15-3 separately from TVA bonds and notes to distinguish between the types of borrowing. The obligations for lease/leasebacks increased to \$1.2 billion at the end of 2003 and are estimated to decline steadily in the following years as they are amortized.

The second type of alternative financing method is prepayments for power that TVA sells to its power distributors. Under the Discounted Energy Units program, which began in 2003, distributors may prepay a portion of the price of the power they plan to purchase in the future. In return, they obtain a discount on a specific quantity of the future power they buy from TVA. The quantity varies, depending on TVA's estimated cost of borrowing. Most of the prepayments have been relatively small. However, TVA has entered into a contract with Memphis Light, Gas, and Water, under which that distributor will prepay \$1.5 billion for a large portion of its power needs over the next 15 years in return for a discount on that power. The distributor, in turn, will finance its prepayment by selling tax-exempt bonds.

The Office of Management and Budget has determined that these prepayments are also a means of financing the acquisition of assets owned and used by the Federal Government, or, in effect, are used to refinance debt previously incurred to finance such assets. They are equivalent in concept to other forms of borrowing from the public, although at different terms and conditions. The prepayment obligations are recorded as liabilities, called "unearned revenue," on TVA's balance sheet under generally accepted accounting principles. The budget therefore records the upfront cash proceeds from the prepayment as borrowing from the public, not

offsetting collections. Agency debt in the form of a prepayment obligation is recorded as a type of borrowing. The total amount of prepayment obligations is shown in table 15-3 separately from bonds and notes and lease/leaseback obligations to distinguish between these types of borrowing. The prepayment obligations increased from zero to \$47 million during 2003 and are estimated to be \$1.5 billion at the end of 2004 because of the contract with Memphis Light, Gas, and Water. The obligations are estimated to decline steadily in the following years as they are amortized.

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 sub-

stitute 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.

Debt Held by Government Accounts

Trust funds, and some special funds and public enterprise revolving funds, accumulate cash in excess of current needs in order to meet future obligations. These cash surpluses are generally invested in Treasury debt.

Table 15-4. DEBT HELD BY GOVERNMENT ACCOUNTS¹

(In millions of dollars)

Description	Investment or Disinvestment (-)			Holdings end of 2005 estimate
	2003 actual	2004 estimate	2005 estimate	
Investment in Treasury debt:				
Energy:				
Nuclear waste disposal fund ¹	1,041	1,786	1,752	17,729
Uranium enrichment decontamination fund	423	380	406	4,196
Health and Human Services:				
Federal hospital insurance trust fund	22,401	9,381	10,633	271,321
Federal supplementary medical insurance trust fund	-13,956	-3,557	7,748	29,040
Vaccine Injury compensation fund	138	398	166	2,460
Housing and Urban Development:				
Federal Housing Administration mutual mortgage fund	2,571	.....	4,000	27,819
Other HUD	285	257	283	7,785
Interior: Abandoned Mine Reclamation fund	32	114	7	2,048
Labor:				
Unemployment trust fund	-20,076	-6,377	4,255	46,066
Pension Benefit Guaranty Corporation ¹	-279	776	-636	12,356
State: Foreign Service retirement and disability trust fund	555	567	650	13,506
Transportation:				
Highway trust fund	-5,263	1,712	1,385	16,675
Airport and airway trust fund	-479	864	-1,426	9,956
Homeland Security				
Oil spill liability trust fund	-48	-122	-71	762
Aquatic resources trust fund	46	-110	.....	1,306
Treasury: Exchange stabilization fund	785	211	.....	10,713
Veterans Affairs:				
National service life insurance trust fund	-219	-299	-359	10,588
Other trust funds	53	24	17	2,009
Federal funds	-13	-23	-20	454
Defense-Civil:				
Uniformed Services Retiree Health Care Fund	18,445	20,059	23,833	62,337
Military retirement trust fund	9,966	9,661	7,950	189,973
Harbor maintenance trust fund	139	-110	.....	1,833
Environmental Protection Agency:				
Hazardous substance trust fund	-726	292	-81	2,719
Leaking underground storage tank trust fund	145	197	201	2,436
International Assistance Programs:				
Overseas Private Investment Corporation	194	103	200	3,961
Office of Personnel Management:				
Civil Service retirement and disability trust fund	27,996	29,838	31,121	662,668
Employees life insurance fund	1,428	971	1,573	29,322
Employees health benefits fund	1,482	1,044	1,022	11,103
Social Security Administration:				
Federal old-age and survivors insurance trust fund ²	139,668	138,044	166,977	1,618,448
Federal disability insurance trust fund ²	15,506	11,352	12,133	194,278
Farm Credit System Insurance Corporation:				
Farm Credit System Insurance fund	124	185	-71	1,924
Federal Deposit Insurance Corporation:				
Bank Insurance fund	513	2,163	404	33,621
FSLIC Resolution fund	163	347	.....	3,310

Table 15-4. DEBT HELD BY GOVERNMENT ACCOUNTS¹—Continued
(In millions of dollars)

Description	Investment or Disinvestment (-)			Holdings end of 2005 estimate
	2003 actual	2004 estimate	2005 estimate	
Savings Association Insurance fund	270	963	451	12,837
National Credit Union Administration: Share insurance fund	558	446	484	6,637
Postal Service fund ²	1,221	-1,251	.....	1,400
Railroad Retirement Board trust funds ¹	-17,740	171	-17	2,471
Other Federal funds ³	1,232	-95	747	9,508
Other trust funds	-398	-1,108	-293	5,151
Unrealized discount ¹	218	.....	.....	-1,643
Total, investment in Treasury debt¹	188,401	219,252	275,424	3,341,083
Total, investment in Federal debt¹	188,401	219,252	275,424	3,341,083
MEMORANDUM				
Investment by Federal funds (on-budget)	26,343	27,670	31,840	217,235
Investment by Federal funds (off-budget)	1,221	-1,251	.....	1,400
Investment by trust funds (on-budget)	5,445	43,436	64,474	1,311,365
Investment by trust funds (off-budget)	155,174	149,397	179,110	1,812,726
Unrealized discount ¹	218	.....	.....	-1,643

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, the Pension Benefit Guaranty Corporation (PBGC), 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 \$11.7 billion higher than recorded in this table at the end of 2003; the debt held by PBGC would be \$0.7 billion higher.

² Off-budget Federal entity.

³ Retroactively includes debt held by the Telecommunications Development Fund as of the end of 2002. Debt held by Government accounts was increased by \$32 million at the end of 2002 and 2003, and debt held by the public was decreased by identical amounts.

Investment by trust funds and other Government accounts has risen greatly for many years. It was \$188 billion in 2003, as shown in table 15-4, and is estimated to be \$275 billion in 2005. The holdings of Federal securities by Government accounts are estimated to grow to \$3,341 billion by the end of 2005, or 41 percent of the gross Federal debt. This percentage is estimated to rise gradually in the following years, as the trust funds and several major Federal funds continue to accumulate surpluses.

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 \$484 billion during 2003-05, which is 71 percent of the total estimated investment by Government accounts. The two Medicare trust funds—Hospital Insurance and Supplementary Medical Insurance—account for another 5 percent of the total estimated investment.

Apart from these four social insurance funds, the largest investment is by the funds for Federal employee retirement. 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 2003-05. The military retirement trust fund and the special fund for uniformed services retiree health care account for another 13 percent. Altogether, the investment by Social Security, Medicare, and these three Federal employee retirement funds is more than the total invest-

ment by Government accounts during this period. At the end of 2005, they are estimated to own 91 percent of the total debt held by Government accounts.

Many of the other Government accounts also increase their holdings of Federal securities during this period, but three accounts record major decreases. The unemployment trust fund disinvested \$20 billion last year and is estimated to disinvest \$6 billion this year, as the result of the recession and the initially slow recovery. The previously existing trust funds under the Railroad Retirement Board, which were invested in Treasury securities, transferred most of their assets to the National Railroad Retirement Investment Trust, which invested mainly in private stocks and bonds (see previous discussion). The effect in 2003 was a net disinvestment of \$18 billion for the Railroad Retirement Board as a whole. The Supplementary Medical Insurance trust fund is estimated to disinvest \$18 billion in 2003-04, after which it accumulates assets again.

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 13-4 at par value less unamortized discount. The

only three Government accounts that held zero-coupon bonds during the period of this table are the Nuclear Waste Disposal fund in the Department of Energy, the Pension Benefit Guaranty Corporation (PBGC), and the Rail Industry Pension fund under the Railroad Retirement Board. The Rail Industry Pension fund disinvested them in 2003 as it transferred assets to the National Railroad Retirement Investment Trust as discussed above. The total unamortized discount on zero-coupon bonds was \$12.4 billion at the end of 2003.

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 and debt held by the public, the unrealized discount is the discount at the time of issue and is not amortized over the term of the security. In table 15–4 it is shown as a separate item at the end of the table and not distributed by account. The amount was \$1.6 billion at the end of 2003.

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 third part of table 15–2 compares total Treasury debt with the amount of Federal debt that is subject to the limit. Nearly all Treasury debt is subject to the debt limit. The only existing Treasury debt not subject to limit is mostly silver certificates and other currencies no longer being issued. The Federal Financing Bank (FFB), which is within the Treasury Department, is authorized to have outstanding up to \$15 billion of publicly issued debt, and this debt is not subject to the general limit. This amount was issued several years ago to the Civil Service Retirement and Disability fund, redeemed in early 2003, and then issued again for a few months later in 2003 when the debt subject to limit reached the statutory ceiling (for further discussion, see below). It was redeemed before the end of 2003 and is estimated to remain zero.

The sole type of agency debt currently subject to the general limit is the debentures issued by the Federal Housing Administration, which was only \$265 million at the end of 2003. Some of the other agency debt, however, is subject to its own statutory limit. For exam-

ple, the Tennessee Valley Authority is limited to \$30 billion of debt 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 6 to table 15–2. The amount is relatively small: \$5.1 billion at the end of 2003 compared to the total unamortized discount (less premium) of \$50.6 billion on all Treasury securities.

Changes in the debt limit.—The statutory debt limit has been changed many times. Since 1960, Congress has passed 70 separate acts to raise the limit, extend the duration of a temporary increase, or revise the definition. For a long period up to 1990, the debt limit was also changed frequently. Since then, however, the debt limit has been increased three times by amounts large enough to last for two years or more. All three of these increases were enacted as part of a deficit reduction package or a plan to balance the budget and were intended to last a relatively long time: the Omnibus Budget Reconciliation Act of 1990, the Omnibus Budget Reconciliation Act of 1993, and the Balanced Budget Act of 1997.¹⁰

The Balanced Budget Act of 1997 increased the debt limit to \$5,950 billion, which lasted until 2002. The debt reached the limit in April 2002, the Treasury Department took a variety of administrative actions to keep within the limit, and on June 28 the President signed a bill to raise the limit to \$6,400 billion.

This limit did not last quite one year. By December 2002, Treasury wrote Congress that the debt subject to limit might reach the ceiling in the latter half of February 2003. It did run up against the limit on February 20 and stayed there until the limit was increased.

Treasury took several steps at the start to meet the Government’s obligation to pay its bills and invest its trust funds while keeping debt under the statutory limit. The Secretary of Treasury declared that he would not be able to fully invest the Government Securities Investment Fund (G-fund). This fund is one component of the Thrift Savings Fund, a defined contribution pension plan for Federal employees. The Secretary has statutory authority to suspend investment of the G-fund in Treasury securities as needed to prevent the debt from exceeding the debt limit; when he does this, he is required to make the fund whole after the debt limit has been raised by restoring the lost interest and investing the fund fully. Starting on February 20,

¹⁰The Acts and the statutory limits since 1940 are enumerated in *Historical Tables, Budget of the United States Government*, table 7.3.

Table 15-5. FEDERAL FUNDS FINANCING AND CHANGE IN DEBT SUBJECT TO STATUTORY LIMIT

(In billions of dollars)

Description	2003 Actual	Estimate					
		2004	2005	2006	2007	2008	2009
Federal funds deficit (-)	-553.7	-708.6	-606.9	-546.6	-537.1	-559.3	-575.2
Means of financing other than borrowing:							
Change in: ¹							
Treasury operating cash balances	25.9	-*	.....	.....	.....	.....	.....
Compensating balances ²	-5.2	22.2	.....	.....	.....	.....	.....
Checks outstanding, etc. ³	5.8	-5.7	-0.1	0.1	0.3	0.3	0.5
Seignorage on coins	0.6	0.6	0.7	0.7	0.7	0.7	0.7
Less: Net financing disbursements:							
Direct loan financing accounts	-6.5	-11.8	-11.5	-18.8	-20.1	-20.3	-20.7
Guaranteed loan financing accounts	-0.7	3.3	3.2	3.4	1.5	1.8	1.6
Total, means of financing other than borrowing	19.9	8.6	-7.8	-14.6	-17.6	-17.4	-17.9
Decrease or increase (-) in Federal debt held by Federal funds	-27.6	-26.4	-31.8	-32.2	-36.8	-36.4	-39.9
Increase or decrease (-) in Federal debt not subject to limit	-15.2	-0.3	-0.5	-0.2	-0.5	-0.7	-0.7
Total, requirement for Federal funds borrowing subject to debt limit	576.6	726.7	647.0	593.6	592.1	613.8	633.7
Change in discount and premium ⁴	-0.6	.....	.....	.....	.....	.....	.....
Change in unrealized discount ⁵	0.2	.....	.....	.....	.....	.....	.....
Increase in debt subject to limit	576.2	726.7	647.0	593.6	592.1	613.8	633.7
ADDENDUM							
Debt subject to statutory limit ⁶	6,737.6	7,464.4	8,111.4	8,705.0	9,297.0	9,910.9	10,544.6

* \$50 million or less.

¹ A decrease in the Treasury operating cash balance or compensating balances (which are assets) would be a means of financing the deficit and therefore has a positive sign. An increase in checks outstanding (which is a liability) would also be a means of financing the deficit and would therefore also have a positive sign.

² Compensating balances are non-interest bearing Treasury bank deposits that Treasury mainly uses to compensate banks for collecting tax and non-tax receipts under financial agency agreements. Most of the balances at the end of 2003 were required to be invested in nonmarketable Depository Compensation Securities issued by the Treasury; the rest of the balances, and the entire amount in previous years, was invested in the way that the banks decide.

³ Besides checks outstanding, 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 and compensating balances), miscellaneous asset accounts, and profit on the sale of gold.

⁴ 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.

⁵ The unrealized discount is for Government account series securities

⁶ The statutory debt limit is \$7,384 billion.

Treasury determined each day the amount of investments that would allow the fund to be invested as fully as possible without exceeding the debt limit. In addition to this step, Treasury also began to keep its operating cash balances lower than in the absence of a debt limit problem; reduced its compensating balances held in banks to pay for services under financial agency agreements; and discontinued the acceptance of subscriptions to the state and local government series of securities.

As the need for financing grew, Treasury took further steps. In early March, Treasury issued \$15 billion of Federal Financing Bank (FFB) securities to the Civil Service Retirement and Disability fund in exchange for an equivalent amount of regular Treasury securities, which it redeemed. As explained above, the FFB securities are not subject to the debt limit. At the end of March, Treasury began to disinvest the Exchange Stabilization fund to the extent needed. In April, the Secretary declared a debt issuance suspension period, under which he could redeem a limited amount of securities held by the Civil Service Retirement and Dis-

ability fund and stop investing its receipts. He declared an extension of the debt issuance suspension period in May, which allowed him to redeem more securities. All the steps taken during these months had also been taken on previous occasions when the debt had reached the statutory limit, and most of them had been taken in 2002.

Congress passed a bill raising the debt limit to \$7,384 billion on May 23, when the Senate passed a House joint resolution based on the congressional budget resolution (see the next section). The President signed the bill on May 27, and Treasury promptly auctioned new securities in the credit market, restored the lost interest to the G-fund and Civil Service fund, and fully invested these funds and the Exchange Stabilization fund. The FFB securities held by the Civil Service fund were redeemed at the end of June in exchange for regular Treasury securities.

Methods of changing the debt limit.—The statutory limit is usually changed by normal legislative procedures. Under the rules adopted by the House of Rep-

representatives in January 2003, it can also be changed as a consequence of the annual Congressional budget resolution, which is not itself a law. The budget resolution includes a provision specifying the appropriate level of the debt subject to limit at the end of each fiscal year. The new rule provides that, when the budget resolution is adopted by both Houses of the Congress, the vote in the House of Representatives is deemed to have been a vote in favor of a joint resolution setting the statutory limit at the level specified in the budget resolution. The joint resolution is transmitted to the Senate for further action, where it may be amended to change the debt limit provision or in any other way. If it passes both Houses of the Congress, it is sent to the President for his signature.

The House of Representatives first adopted this rule for 1980 and it was used a number of times, but it was not included in the rules for several years before 2003.

Federal funds financing and the change in debt subject to limit.—The change in debt held by the public, as shown in table 15–2, is determined primarily by the total Government deficit or surplus. The debt 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. The effect of debt held by Government accounts on the total debt subject to limit is brought out sharply in the second part of table 15–2. The change in debt held by Government accounts is a large proportion of the change in total debt subject to limit each year and accounts for half of the estimated total increase from 2003 through 2009.

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 receipts earmarked by law for specified purposes, such as paying Social Security benefits or making grants to state governments for highway construction.¹¹

A Federal funds deficit must generally be financed by borrowing, which can be done 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 Treasury securities that are subject to the statutory debt limit. Very little debt subject to statutory limit has been issued for reasons except to finance the Federal funds deficit. 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.

Trust fund surpluses are almost entirely invested in securities subject to the debt limit, and trust funds hold most of the debt held by Government accounts.

Table 15–5 derives the change in debt subject to limit. In 2003 the Federal funds deficit was \$554 billion, and other factors increased the requirement to borrow subject to limit by \$23 billion. The largest of these other factors was the \$28 billion investment in Treasury securities by special funds and revolving funds, of which the largest single investment was \$18 billion for the uniformed services retiree health care fund. The next largest factor was redeeming \$15 billion of Federal Financing Bank securities, which were not subject to the debt limit and were replaced by securities that were subject to the limit. The net financing disbursements of the direct loan financing accounts added \$6 billion to the financing requirements. As explained in an earlier section, the transactions of the credit financing accounts are excluded from the budget by law because they are not a cost to the Government, but they are sizable and have to be financed. As an offset, the Treasury operating cash balance decreased \$26 billion. As a net result of all these factors, debt subject to limit increased by \$576 billion, while debt held by the public increased by \$373 billion.

The debt subject to limit is estimated to increase to \$7,464 billion by the end of 2004, which is more than the present statutory debt limit of \$7,384 billion. This is caused by a rise in the Federal funds deficit, supplemented by the other factors shown in table 15–5. Some of these factors are large, especially the investment by Federal special and revolving funds and in particular the special fund for uniformed services retiree health care. As a result, while debt held by the public increases by \$1,931 billion during 2004–09, debt subject to limit increases by \$3,807 billion.

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 15–6, foreign holdings were just over \$10.0 billion, less than 5 percent of the total Federal debt held by the public.

Foreign holdings began to grow significantly starting in 1970. This increase has been almost entirely due to decisions by foreign central banks, corporations, and individuals, rather than the direct marketing of these securities to foreign residents. At the end of 2003 foreign holdings of Treasury debt were \$1,459 billion, which was 37 percent of the total debt held by the public.¹² Foreign central banks owned 56 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

¹¹For further discussion of the trust funds and Federal funds groups, see chapter 21, "Trust Funds and Federal Funds."

¹²The amounts of debt reported by the Bureau of Economic Analysis, Department of Commerce, are different, though similar in size, because of a different method of valuing the securities.

Table 15-6. FOREIGN HOLDINGS OF FEDERAL DEBT
(Dollar amounts in billions)

Fiscal Year	Debt held by the public			Borrowing from the public	
	Total	Foreign ¹	Percentage foreign	Total ²	Foreign ¹
1965	260.8	12.3	4.7	3.9	0.3
1966	263.7	11.6	4.4	2.9	-0.7
1967	266.6	11.4	4.3	2.9	-0.2
1968	289.5	10.7	3.7	22.9	-0.7
1969	278.1	10.3	3.7	-11.4	-0.4
1970	283.2	14.0	5.0	5.1	3.8
1971	303.0	31.8	10.5	19.8	17.8
1972	322.4	49.2	15.2	19.3	17.3
1973	340.9	59.4	17.4	18.5	10.3
1974	343.7	56.8	16.5	2.8	-2.6
1975	394.7	66.0	16.7	51.0	9.2
1976	477.4	69.8	14.6	82.7	3.8
TQ	495.5	74.6	15.1	18.1	4.9
1977	549.1	95.5	17.4	53.6	20.9
1978	607.1	121.0	19.9	58.0	25.4
1979 ³	640.3	120.3	18.8	33.2	n.a
1980	711.9	121.7	17.1	71.6	1.4
1981	789.4	130.7	16.6	77.5	9.0
1982	924.6	140.6	15.2	135.2	9.9
1983	1,137.3	160.1	14.1	212.7	19.5
1984	1,307.0	175.5	13.4	169.7	15.4
1985 ³	1,507.3	222.9	14.8	200.3	n.a
1986	1,740.6	265.5	15.3	233.4	42.7
1987	1,889.8	279.5	14.8	149.1	14.0
1988	2,051.6	345.9	16.9	161.9	66.4
1989	2,190.7	394.9	18.0	139.1	49.0
1990 ³	2,411.6	440.3	18.3	220.8	n.a
1991	2,689.0	477.3	17.7	277.4	37.0
1992	2,999.7	535.2	17.8	310.7	57.9
1993	3,248.4	591.3	18.2	248.7	56.1
1994	3,433.1	655.8	19.1	184.7	64.5
1995 ³	3,604.4	800.4	22.2	171.3	n.a
1996	3,734.1	978.1	26.2	129.7	177.7
1997	3,772.3	1,218.2	32.3	38.3	240.0
1998	3,721.1	1,216.9	32.7	-51.2	-1.2
1999 ³	3,632.4	1,281.4	35.3	-88.7	n.a
2000 ³	3,409.8	1,057.9	31.0	-222.6	n.a
2001	3,319.6	1,005.5	30.3	-90.2	-52.3
2002 ³	3,540.4	1,199.6	33.9	220.8	n.a
2003	3,913.6	1,458.5	37.3	373.2	259.0

n.a. = not available

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 Benchmark revisions reduced the estimated foreign holdings of the Federal debt as of December 1978; increased the estimated foreign holdings as of December 1984 and December 1989; reduced the estimated holdings as of December 1994 and March 2000; and increased the estimated holdings as of June 2002. A conceptual revision increased the estimated foreign holdings as of 1999. The change in debt that is recorded as held by foreign residents in these fiscal years reflects the benchmark or conceptual revisions as well as the net purchases of Federal securities. Borrowing is therefore not shown in these years.

that foreign residents 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 public.¹³ As a result, the Federal debt held

¹³ Table 15-6 does not show a number for the increase in foreign holdings in 1995 because of a benchmark revision. As explained in footnote 5 to that table, a benchmark revision reduced the estimated holdings as of December 1994 (by \$47.9 billion). Because estimates of foreign holdings were not revised retroactively, the increase in 1995 was more than the difference between the beginning and end of year amounts as now calculated. Before the benchmark revision, the increase was estimated to be \$192.6 billion.

by individuals and institutions within the United States decreased in absolute amount during those years, despite further Federal borrowing, 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. In most subsequent years the change in foreign debt holdings was much smaller, but in 2003 the Federal debt held by foreign residents increased by \$259 billion or from 34 to 37 percent of Federal debt.

Foreign holdings of Federal debt are around 14 percent of the foreign-owned assets in the United States,

depending on the method of measuring total assets. 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.

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 Govern-

ment 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; it permits mortgage interest to be deducted in calculating taxable income; 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 7, "Credit and Insurance." Detailed data are presented in tables at the end of that chapter. Table 7-9 summarizes GSE borrowing and lending.

16. FEDERAL BORROWING AND DEBT

Debt is the largest legally binding obligation of the Federal Government. At the end of 2004, the Government owed \$4,296 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 \$168 billion of interest on this debt.

Table 16-1. TRENDS IN FEDERAL DEBT HELD BY THE PUBLIC

(Dollar amounts in billions)

Fiscal Year	Debt held by the public:		Debt held by the public as a percent of:		Interest on the debt held by the public as a percent of: ³	
	Current Dollars	FY 2000 dollars ¹	GDP	Credit market debt ²	Total outlays	GDP
1946	241.9	1,821.2	108.6	N/A	7.4	1.8
1950	219.0	1,339.6	80.2	53.3	11.4	1.8
1955	226.6	1,217.1	57.4	43.2	7.6	1.3
1960	236.8	1,127.8	45.7	33.8	8.5	1.5
1965	260.8	1,161.6	38.0	26.9	8.1	1.4
1970	283.2	1,047.7	28.0	20.8	7.9	1.5
1975	394.7	1,074.6	25.3	18.4	7.5	1.6
1980	711.9	1,340.7	26.1	18.5	10.6	2.3
1985	1,507.3	2,164.7	36.4	22.3	16.2	3.7
1986	1,740.6	2,443.0	39.4	22.6	16.1	3.6
1987	1,889.8	2,584.8	40.7	22.3	16.0	3.5
1988	2,051.6	2,720.6	41.0	22.2	16.2	3.4
1989	2,190.7	2,796.4	40.6	22.0	16.5	3.5
1990	2,411.6	2,968.1	42.0	22.6	16.2	3.5
1991	2,689.0	3,189.8	45.3	24.1	16.2	3.6
1992	2,999.7	3,471.1	48.1	25.7	15.5	3.4
1993	3,248.4	3,675.5	49.4	26.6	14.9	3.2
1994	3,433.1	3,802.7	49.3	26.8	14.4	3.0
1995	3,604.4	3,910.2	49.2	26.7	15.8	3.3
1996	3,734.1	3,974.5	48.5	26.3	15.8	3.2
1997	3,772.3	3,946.4	46.1	25.3	15.7	3.1
1998	3,721.1	3,846.1	43.1	23.5	15.1	2.9
1999	3,632.4	3,705.7	39.8	21.4	13.8	2.6
2000	3,409.8	3,409.8	35.1	19.1	13.0	2.4
2001	3,319.6	3,243.1	33.0	17.6	11.6	2.1
2002	3,540.4	3,395.8	34.1	17.6	8.9	1.7
2003	3,913.4	3,687.1	36.1	18.0	7.5	1.5
2004	4,295.5	3,968.2	37.2	18.3	7.3	1.5
2005 estimate	4,721.2	4,274.5	38.6	N/A	7.4	1.5
2006 estimate	5,120.8	4,547.4	39.7	N/A	8.6	1.7
2007 estimate	5,454.0	4,745.5	40.1	N/A	9.7	1.9
2008 estimate	5,726.7	4,880.0	39.9	N/A	10.4	2.0
2009 estimate	5,981.8	4,992.7	39.6	N/A	10.8	2.1
2010 estimate	6,211.5	5,078.1	39.1	N/A	11.0	2.1

N/A=Not available.

¹Debt in current dollars deflated by the GDP chain-type price index with fiscal year 2000 equal to 100.

²Total credit market debt owed by domestic nonfinancial sectors, modified in some 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.

³Interest on debt held by the public is estimated as the interest on Treasury debt securities less the "interest received by trust funds" (subfunction 901 less subfunctions 902 and 903). 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 budget shifted from surplus to deficit in 2002, and the deficit then grew sharply in 2003 and edged up a little more in 2004. The shift from a surplus to a large deficit in these years was primarily because of several shocks to the economy—which included the bursting of the stock market bubble, the terrorist attack of September 11th, and the recession—together with the additional spending in response to terrorism and several measures of tax relief that were designed to stimulate the economy in the near-term and increase long-term growth. As a result, the deficit is estimated to rise slightly more in 2005 before declining. Debt held by the public as a percentage of GDP has risen since 2001 and is estimated to peak at 40.1 percent in 2007 before starting to decline gradually.

Trends in Debt Since World War II

Table 16–1 depicts trends in Federal debt held by the public from World War II to the present and estimates from the present through 2010. (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 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 80.2 percent of GDP to 25.3 percent, and from 53.3 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 spending surged, but at a slower pace than earlier decades, and 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 at the beginning of the 1980s, due in large part to a deep recession, and the ratio of Federal debt to GDP grew very 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 declined markedly relative to both GDP and total credit market debt. It fell steadily from 49.4 percent of GDP in 1993 to 33.0 percent in 2001; and it fell more un-

evenly from 26.8 percent of total credit market debt in 1994 to 17.6 percent in 2001 and 2002. Interest on this debt, relative to total outlays and GDP, declined as well. Interest as a share of outlays peaked at 16.5 percent in 1989 and then fell to 11.6 percent by 2001; interest as a percentage of GDP fell in a similar proportion.

The downward trend in debt relative to GDP ceased as economic conditions changed and the terrorist attacks occurred. The decline in the stock market, the recession, and the initially slow recovery all reduced tax receipts; tax relief had the same effect; and spending increased for war and homeland security. As a result of the ensuing deficits, table 16–1 shows a rise in debt held by the public throughout the projection period. The increase in debt, however, is estimated to slow down. Debt continues to rise by small amounts as a percentage of GDP in 2004 and 2005 and then is essentially stable, declining a little in the later years of the decade.

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.¹ 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.”²

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. Regardless of whether 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

¹Debt 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 book value equals the sales price. Subsequently, it equals the sales price plus the amount of the discount that has been amortized up to that time. In equivalent terms, the book 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 revised. In 1997 Treasury began to sell inflation-indexed notes and bonds. The book value of these securities includes a periodic adjustment for inflation.

²The 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 16–3 but also the debt of the Government-sponsored enterprises listed in table 7–9 at the end of chapter 7 and certain Government-guaranteed securities.

Table 16-2. Federal Government Financing and Debt
(In billions of dollars)

	Actual 2004	Estimate					
		2005	2006	2007	2008	2009	2010
Financing:							
Unified budget deficit (-)	-412.1	-426.6	-390.1	-312.1	-250.8	-232.9	-207.3
Financing other than the change in debt held by the public:							
Net purchases (-) of non-Federal securities by the National Railroad Retirement Investment Trust	-2.5	-0.9	0.7	0.5	0.3	0.5	0.5
Changes in: ¹							
Treasury operating cash balance	-1.4	1.3					
Compensating balances ²	22.2						
Checks outstanding, etc. ³	6.5						
Seigniorage on coins	0.7	0.6	0.7	0.7	0.7	0.7	0.7
Less: Net financing disbursements:							
Direct loan financing accounts	-4.9	-9.1	-12.8	-20.0	-20.7	-20.1	-20.7
Guaranteed loan financing accounts	9.4	8.9	1.8	-2.3	-2.1	-3.2	-2.9
Total, financing other than the change in debt held by the public	30.0	0.9	-9.5	-21.1	-21.8	-22.2	-22.5
Total, requirement to borrow from the public	-382.1	-425.7	-399.6	-333.2	-272.6	-255.1	-229.8
Change in debt held by the public	382.1	425.7	399.6	333.2	272.6	255.1	229.8
Changes in Debt Subject to Limitation:							
Change in debt held by the public	382.1	425.7	399.6	333.2	272.6	255.1	229.8
Change in debt held by Government accounts	212.6	251.0	276.6	309.2	325.9	339.8	364.0
Change in other factors	1.1	-13.4	0.2	0.5	0.7	2.8	2.4
Total, change in debt subject to statutory limitation	595.8	663.3	676.4	643.0	599.2	597.7	596.1
Debt Subject to Statutory Limitation, End of Year:							
Debt issued by Treasury	7,327.8	8,005.1	8,681.5	9,324.5	9,923.7	10,519.4	11,113.8
Less: Treasury debt not subject to limitation (-) ⁴	-0.5	-14.5	-14.5	-14.5	-14.5	-12.4	-10.8
Agency debt subject to limitation	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Adjustment for discount and premium ⁵	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Total, debt subject to statutory limitation ⁶	7,333.4	7,996.6	8,673.0	9,316.0	9,915.3	10,512.9	11,109.1
Debt Outstanding, End of Year:							
Gross Federal debt: ⁷							
Debt issued by Treasury	7,327.8	8,005.1	8,681.5	9,324.5	9,923.7	10,519.4	11,113.8
Debt issued by other agencies	26.8	26.3	26.1	25.6	24.9	24.2	23.5
Total, gross Federal debt	7,354.7	8,031.4	8,707.6	9,350.1	9,948.6	10,543.5	11,137.3
Held by:							
Debt held by Government accounts	3,059.1	3,310.2	3,586.8	3,896.1	4,222.0	4,561.8	4,925.8
Debt held by the public ⁸	4,295.5	4,721.2	5,120.8	5,454.0	5,726.7	5,981.8	6,211.5

¹ A decrease in the Treasury operating cash balance or compensating balances (which are assets) is a means of financing a deficit and therefore has a positive sign. An increase in checks outstanding (which is a liability) is also a means of financing a deficit and therefore also has a positive sign.

² Compensating balances were non-interest bearing Treasury bank deposits that Treasury mainly used to compensate banks for collecting tax and non-tax receipts under financial agency agreements. Most of the balances at the end of 2003 were required to be invested in nonmarketable Depository Compensation Securities issued by the Treasury; the rest of the balances, and the entire amount in previous years, was invested in the way that the banks decided. The use of compensating balances was discontinued in 2004, and the amounts were drawn down to zero.

³ Besides checks outstanding, includes accrued interest payable on Treasury debt, uninvested deposit fund balances, allocations of special drawing rights, and other liability accounts; and, as an offset, cash and monetary assets (other than the Treasury operating cash balance and compensating balances), other asset accounts, and profit on sale of gold.

⁴ Consists primarily of Federal Financing Bank debt after 2004.

⁵ Consists mainly 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 \$8,184 billion.

⁷ Treasury securities held by the public and zero-coupon bonds held by Government accounts are almost all measured at sales price plus amortized discount or less amortized premium. Agency debt securities are almost all measured at face value. Treasury securities in the Government account series are otherwise measured at face value less unrealized discount (if any).

⁸ At the end of 2004, the Federal Reserve Banks held \$700.3 billion of Federal securities and the rest of the public held \$3,595.2 billion. Debt held by the Federal Reserve Banks is not estimated for future years.

of other credit market sectors for financial resources in the credit market. 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 future taxes required

to pay interest to the public on Federal debt. Borrowing from the public is therefore an important concern of Federal fiscal policy.³

³The Federal subsector of the national income and product accounts provides a measure of "net government saving" (based on current expenditures and current receipts) that can

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 that is credited to these funds accounts for the fact that some earmarked taxes and user fees will be spent at a later time than when the funds receive the monies. The debt securities are a liability of the general fund to the fund that holds the securities and are a mechanism for crediting interest to that fund on its recorded balances. These accounting balances generally provide the fund with authority to draw upon the U.S. Treasury in later years to make future payments on its behalf to the public. Public policy may 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 is not financed by private saving and does not 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, which itself obtains real resources by taxation and borrowing; and its current interest does not have to be financed by taxes or other means.

Furthermore, the debt held by Government accounts does not represent the estimated amount of the account's obligations or responsibilities to make future payments to 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 estimated future benefits (or future benefits less taxes) for the current participants in the program; nor does it represent the actuarial present value of estimated future benefits (or future benefits less taxes) for the current participants plus the estimated future participants over some stated time period. The future transactions of Federal social insurance and employee retirement programs, which own 92 percent of the debt held by Government accounts, are important in their own right and need to be analyzed separately. This can be done through information published in the actuarial and financial reports for these programs.⁴

This Budget uses a variety of information sources to analyze the condition of Social Security and Medicare, the Government's two largest social insurance programs. Chapter 13 of the present volume, "Steward-

ship," projects Social Security and Medicare outlays to 2080 relative to GDP. It also discusses in some detail the actuarial projections prepared for the Social Security and Medicare trustees reports to evaluate the long-run actuarial deficiency or shortfall in these programs. A chapter in the main volume of the budget, "The Nation's Fiscal Outlook," uses the same data in less detail to explain the long-run fiscal problems of Social Security and Medicare revealed by these projections. The actuarial shortfalls are very different in concept and much larger in size than the amount of Treasury debt that these programs hold.

For all these reasons, debt held by the public is 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 liabilities are incurred when the Government guarantees the payment of interest and principal on private loans; and liabilities for future pension and retiree health 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 13 of this volume, "Stewardship." The different types of liabilities are reported annually in the financial statements of Federal agencies and in the *Financial Report of the United States Government*, prepared by the Treasury Department.

Government Surpluses or Deficits and the Change in Debt

Table 16–2 summarizes Federal borrowing and debt from 2004 through 2010. In 2004 the Government borrowed \$382 billion, so the debt held by the public increased to \$4,296 billion. The debt held by Government accounts increased \$213 billion, and gross Federal debt increased by \$595 billion to \$7,355 billion.

Debt held by the public. The Federal Government primarily finances deficits by borrowing from the public, and it primarily uses surpluses to repay debt held by the public. Table 16–2 shows the relationship between the Federal deficit or surplus and the change in debt held by the public. The borrowing or debt repayment 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 12 of this volume, "Economic Assumptions."

The total or unified budget surplus consists of two parts: the on-budget surplus or deficit; and the surplus of the off-budget Federal entities, which have been ex-

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 subsector and its differences from the budget are discussed in chapter 14 of this volume, "National Income and Product Accounts."

⁴Extensive 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 major Federal employee retirement funds. The actuarial estimates for these and other programs are summarized in the *Financial Report of the United States Government*, prepared annually by the Treasury Department.

cluded 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.⁵ The off-budget totals are virtually the same as Social Security, which had a large surplus in 2004 and is estimated to have large and growing surpluses throughout the projection period. The on-budget and off-budget surpluses or deficits are added together to determine the Government's financing needs.

The Government's need to borrow, or its ability to repay debt held by the public, has always depended on several other factors besides the unified budget surplus or deficit, such as the change in the Treasury operating cash balance. As shown in table 16-2, 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 need to borrow. (An increase in its need to borrow is represented by a negative sign, like the deficit.) Some of these individual factors themselves may be either positive or negative, and some of them vary considerably in size from year to year. In 2004 the deficit was \$412 billion and the "financing other than the change in debt held by the public" was \$30 billion. As a result, the Government borrowed \$382 billion from the public.

Over the long-run, it is a good approximation to say that "the deficit is financed by borrowing from the public" or "the surplus is used to repay debt held by the public." Over the last 20 years, the cumulative deficit was \$2,812 billion and the increase in debt held by the public was \$2,989 billion. The other factors added a total of \$177 billion of borrowing, an average of \$9 billion per year.

In individual years it is also often a good approximation to say that the deficit and borrowing (or the surplus and debt repayment) are about the same. The variation, however, can be wide, ranging over the last 20 years from additional borrowing (or lower repayment) of \$63 billion in 2002 to reduced borrowing of \$30 billion in 2004. In 2004, as shown in table 16-2, \$22 billion of the \$30 billion difference was attributable to a one-time change in compensating balances. In 2003, on the other hand, the difference was only \$5 billion, whereas in 2002 several factors were large and in combination accounted for \$63 billion of the \$221 billion increase in debt held by the public. Four specific factors have recently been especially important.

Change in Treasury operating cash balance.—The operating cash balance decreased \$26 billion during 2003, partly because it was higher than planned at the end of the previous year. During 2004, however, the initial cash balance was at about the level that had been planned. The operating cash balance then ended at essentially the same amount—only \$1 billion more. It is estimated to again be essentially the same at the end of 2005. Changes in the operating cash balance, while occasionally large, are inherently limited. De-

creases in cash—a means of financing the Government—are limited by the amount of past accumulations, which themselves required financing when they were built up. Increases are limited because it is more efficient to repay debt.

Change in compensating balances.—Treasury used compensating balances for many years to compensate banks for collecting tax and non-tax receipts and providing other services under financial agency agreements. Under these agreements, Treasury deposited a non-interest bearing compensating balance with a bank. The imputed earnings from the compensating balance, calculated at the 91-day Treasury bill rate, were the source of the bank's compensation for performing the required services. Treasury determined the size of the deposit by balancing the value of the services provided with the imputed earnings of the compensating balance. Banks could use the compensating balances on deposit to make loans or buy investments, and all compensating balances were fully collateralized.

The traditional compensating balances presented difficulties for cash and debt management in recent years. First, any decrease in the interest rate that was applied to compensating balances required Treasury to increase the size of compensating balances on deposit to pay for the services it needed. For example, because interest rates decreased so much during 2002, Treasury had to increase its compensating balances by \$14 billion in that year. Second, when the debt outstanding reached the statutory debt limit, Treasury had to draw down the compensating balances and then make up for this action afterwards by increasing the balances to unusually high levels. These actions were inefficient and disruptive, and they created financial uncertainty for Treasury and the banks.

In large part because of these difficulties, the 2004 budget proposed legislation that would allow Treasury to replace compensating balances by a permanent indefinite appropriation to pay banks directly for their services as depositories and financial agents. This also would simplify Treasury's cash and debt management, would ensure that payments to financial institutions for services were made in a more predictable manner, and could result in budget savings.

As an interim step, before the legislation could be enacted, Treasury began to replace its traditional compensating balances with depository compensation securities (DCS) in July 2003. The banks held DCS instead of other acceptable investments, and the Treasury balances were secured by the DCS. The cost of the services provided to Treasury was part of the interest on the debt under either system. Under the traditional system, Treasury paid interest to the general public on the marketable securities sold to acquire the compensating balances; under the interim system, Treasury paid interest to banks on the DCS. By the end of December 2003, the traditional compensating balances had been replaced by DCS.

Congress authorized a permanent indefinite appropriation to pay for the services in October 2003 in the

⁵For further explanation of the off-budget Federal entities, see chapter 23, "Off-Budget Federal Entities and Non-Budgetary Activities."

Check Clearing for the 21st Century Act (P.L. 108-100). A permanent indefinite appropriation was then included in the Consolidated Appropriation Act of 2004 (P.L. 108-199). Treasury replaced the DCS by direct payments in March 2004. The total compensating balances at the end of 2003 under both systems were \$22 billion, so table 16-2 shows that they were drawn down to zero during 2004.

Net purchases of non-Federal securities by the National Railroad Retirement Investment Trust.—This trust fund was established by the Railroad Retirement and Survivors' Improvement Act of 2001. Most of the assets in the Railroad Retirement Board trust funds were transferred to the new trust fund in 2003, which invests its assets primarily in private stocks and bonds. The Act ordered special treatment of the purchase or sale of non-Federal assets by this trust fund, treating such purchases as a means of financing rather than an outlay. Therefore, the increased need to borrow from the public to finance the purchase of non-Federal assets is part of the "financing other than the change in debt held by the public" rather than included as an increase in the deficit. This increased borrowing and publicly held debt by \$20 billion in 2003. Net purchases were relatively small in 2004 and are estimated to remain relatively small in future years.⁶

Net financing disbursements of the direct loan and guaranteed loan financing accounts.—The financing accounts were created by the Federal Credit Reform Act of 1990. Under this Act, budget outlays for direct loans and loan guarantees consist of the estimated subsidy 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—the disbursement and repayment of loans, the default payments on loan guarantees, the collections of interest and fees, and so forth—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.⁷

The financing accounts also include several types of intra-governmental transactions. In particular, they receive payment from the credit program accounts for the costs of new direct loans and loan guarantees; they also receive payment for any upward reestimate of the costs of direct loans and loan guarantees outstanding. These collections are offset against the gross disbursements of the financing accounts in determining the accounts' total net cash flows. The total net cash flows of the financing accounts, consisting of transactions with both the public and the budgetary accounts, are called "net financing disbursements." They are defined in the same way as the "outlays" of a budgetary account

and therefore affect the requirement for borrowing from the public in the same way as the deficit.

The result is that the intragovernmental transactions of the financing accounts do not affect Federal borrowing from the public. Although the deficit changes because of the budget's outlay or receipt, the net financing disbursement changes in an equal amount with the opposite sign, so the effects cancel out. 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. Likewise, financing account receipts from the public can be used to finance the payment of the Government's obligations, and therefore they reduce the requirement for Federal borrowing from the public in the same way as an increase in budget receipts.

The impact of the financing accounts became large in the mid-1990s. In 2003 they required \$7 billion of financing, which increased borrowing by this amount. In 2004, on the other hand, a large upward reestimate was made in the cost of outstanding Federal Housing Administration (FHA) housing mortgages. The credit program account in the budget made a large outlay to the guaranteed loan financing account, which in turn had an equal offsetting collection and therefore a large negative net financing disbursement. The result is shown as a positive amount in table 16-2, canceling out the effect of a higher budget deficit on the Government's borrowing requirement. Large upward reestimates of guarantees are also estimated for 2005, after which the pattern is expected to be more normal. The financing accounts are estimated to require additional financing of \$11 billion in 2006 and from \$17 billion to \$18 billion in each of the following four years. A major part of this financing is normally due to the direct student loan program. 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.

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 2004. In 2004, for example, the total trust fund surplus was \$193 billion, and Government accounts invested \$213 billion in Federal securities. A major reason for the larger investment is that some special funds and revolving funds, as well as the trust funds, invest in Federal debt. Another factor is that the trust funds may change the amount of their cash assets not currently invested. The debt held in major accounts and the annual investments are shown in table 16-4.

Agency Debt

Several Federal agencies, shown in table 16-3, sell debt securities to the public and at times in the past

⁶The budget treatment of this fund is further discussed in chapter 26, "The Budget System and Concepts."

⁷The Federal Credit Reform Act of 1990 (sec. 505(b)) requires that the financing accounts be non-budgetary. As explained in chapter 23, "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 26 of this volume, "The Budget System and Concepts," and the other references cited in chapter 23.

have sold securities to other Government accounts. During 2004, agencies repaid \$0.4 billion of debt held by the public. Agency debt is less than one percent of Federal debt held by the public. Agencies are estimated to repay small amounts of debt in 2005 and 2006.

The reasons for issuing agency debt differ considerably from one agency to another. The predominant agency borrower is the Tennessee Valley Authority, which had borrowed \$26 billion from the public as of the end of 2004, or 97 percent of the total debt of all agencies. In some earlier periods, other agencies accounted for a much higher proportion of agency debt than they do now. TVA sells debt primarily to finance capital expenditures.

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 selling securities to the public and then paying the bills by disbursing the cash borrowed, so the transaction 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.⁸

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 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 without substantial private 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 according to an amortization schedule. This rule was effective starting in 1991.⁹ The new budgetary treatment was reviewed in connection with the Balanced Budget Act of 1997. Some clarifications were made, but no substantive changes.

The Tennessee Valley Authority has traditionally financed its capital construction by selling bonds and notes to the public. Starting in 2000, it has also employed two types of alternative financing methods. The first type of alternative financing method was lease/leasebacks. TVA signed contracts to lease some recently constructed power generators to private investors and simultaneously lease them back. It received a lump sum for leasing out its assets, and then leased them back at fixed annual payments for a set number of years. TVA retains substantially all of the economic benefits and risks related to ownership of the assets, and the

⁸For an explanation of the monetary credits issued by the Federal Communications Commission (FCC), see chapter 26 of this volume, "The Budget System and Concepts." The budgetary treatment of some of these securities and other securities inherent in the way programs operate 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.

⁹The rule addressed all lease-purchases and capital leases from the public, not just those without substantial private risk. For all such contracts, the rule requires that budget authority be recorded up front for the present value of the lease payments. See OMB Circular No. A-11, Appendix B. Also see the section on outlays in chapter 26, "The Budget System and Concepts."

Table 16-3. AGENCY DEBT

(In millions of dollars)

	Borrowing or repayment (-) of debt			Debt end of 2006 estimate
	2004 actual	2005 estimate	2006 estimate	
Borrowing from the public:				
Housing and Urban Development:				
Federal Housing Administration	-79	*	.....	200
Small Business Administration:				
Participation certificates: Section 505 development company .....	.....	-*	.....	7
Architect of the Capitol	-3	-3	-4	156
Farm Credit System Financial Assistance Corporation .....	.....	-325	.....	.....
Federal Communications Commission	-56	*	.....	.....
National Archives	-8	-8	-10	225
Tennessee Valley Authority:				
Bonds and Notes	-1,623	-88	-10	23,155
Lease/leaseback obligations	-60	-35	-33	1,110
Prepayment obligations	1,424	-105	-106	1,260
Total, borrowing from the public	-405	-563	-163	26,113

* \$500 thousand or less.

lease/leasebacks are reported as liabilities on TVA's balance sheet under generally accepted accounting principles.

The Office of Management and Budget determined that the TVA lease/leasebacks are a means of financing the acquisition of assets owned and used by the Government. The arrangement is at least as governmental as a "lease-purchase without substantial private risk." The budget therefore records the upfront cash proceeds from the lease as borrowing from the public, not offsetting collections. Agency debt in the form of a lease obligation is recorded as a type of borrowing. The same budget treatment was applied to the lease/leaseback of qualified technological equipment in 2003. The total amount of the lease obligations beginning in 2000 is shown in table 16-3 separately from TVA bonds and notes to distinguish between the types of borrowing. The obligations for lease/leasebacks were \$1.2 billion at the end of 2004 and are estimated to decline steadily in the following years as they are amortized.

The second type of alternative financing method is prepayments for power that TVA sells to its power distributors. Under the Discounted Energy Units program, which began in 2003, distributors may prepay a portion of the price of the power they plan to purchase in the future. In return, they obtain a discount on a specific quantity of the future power they buy from TVA. The quantity varies, depending on TVA's estimated cost of borrowing. Most of the prepayments have been relatively small. However, TVA also entered into a contract with Memphis Light, Gas, and Water (MLGW), under which that distributor prepaid \$1.5 billion in 2004 for a large portion of its power needs over the next 15 years in return for a discount on that power. MLGW, in turn, financed its prepayment by selling tax-exempt bonds.

The Office of Management and Budget determined that these prepayments are also a means of financing the acquisition of assets owned and used by the Federal Government, or, in effect, are used to refinance debt previously incurred to finance such assets. They are equivalent in concept to other forms of borrowing from the public, although at different terms and conditions. The prepayment obligations are recorded as liabilities, called "unearned revenue," on TVA's balance sheet under generally accepted accounting principles. The budget therefore records the upfront cash proceeds from the prepayment as borrowing from the public, not offsetting collections. Agency debt in the form of a prepayment obligation is recorded as a type of borrowing. The total amount of prepayment obligations is shown in table 16-3 separately from bonds and notes and lease/leaseback obligations to distinguish among the types of borrowing. The prepayment obligations increased from zero to \$47 million during 2003 and to \$1,471 billion at the end of 2004 because of the contract with Memphis Light, Gas, and Water. The obligations are estimated to decline steadily in the following years as TVA provides electric power under the contracts.

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.

Debt Held by Government Accounts

Trust funds, and some special funds and public enterprise revolving funds, accumulate cash in excess of current needs in order to meet future obligations. These cash surpluses are generally invested in Treasury debt.

Investment by trust funds and other Government accounts has risen greatly for many years. It was \$213 billion in 2004, as shown in table 16-4, and is estimated to rise to \$277 billion in 2006. The holdings of Federal securities by Government accounts are estimated to grow to \$3,587 billion by the end of 2006, or 41 percent of the gross Federal debt. The percentage is estimated to rise gradually in the following years, as the trust funds and several major revolving funds and special funds continue to accumulate surpluses.

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 \$486 billion during 2004-06, which is 66 percent of the total estimated investment by Government accounts. The two Medicare trust funds—Hospital Insurance and Supplementary Medical Insurance—account for another 7 percent of the total estimated investment.

Apart from these four social insurance funds, the largest investment is by the funds for Federal employee retirement. 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 2004-06. The military retirement trust fund and the special fund for uniformed services retiree health care account for another 12 percent. Altogether, the investment by Social Security, Medicare, and these three Federal employee retirement funds is almost as much as the total investment by Government accounts during this period. At the end of 2006, they are estimated to own 91 percent of the total debt held by Government accounts. Many of the other Government accounts also increase their holdings of Federal securities during this period.

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 re-

corded 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 16–4 at par value less unamortized discount. The only two Government accounts that held zero-coupon bonds during the period of this table are the Nuclear Waste Disposal fund in the Department of Energy and the Pension Benefit Guaranty Corporation (PBG). The total unamortized discount on zero-coupon bonds was \$15.1 billion at the end of 2004.

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 and debt held by the public, the unrealized discount is the discount at the time of issue and is not amortized over the term of the security. In table 16–4 it is shown as a separate item at the end of the table and not distributed by account. The amount was \$1.4 billion at the end of 2004.

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 third part of table 16–2 compares total Treasury debt with the amount of Federal debt that is subject to the limit. Nearly all Treasury debt is subject to the debt limit. Most of the Treasury debt not subject to the general statutory limit was issued by the Federal

Financing Bank (FFB). The FFB, which is within the Treasury Department, is authorized to have outstanding up to \$15 billion of publicly issued debt. It issued \$14 billion of securities to the Civil Service Retirement and Disability fund on November 15, 2004, in exchange for an equal amount of regular Treasury securities, as explained below in the section on changes in the debt limit. The FFB securities have the same interest rates and maturities as the regular Treasury securities for which they were exchanged. The first maturity date is June 30, 2009, nearly five year after issuance; the final maturity date is June 30, 2019. The securities are expected to remain outstanding until they mature, and this assumption is reflected in tables 16–2 and 16–5. The other Treasury debt not subject to the general limit consists almost entirely of silver certificates and other currencies no longer being issued. It was \$513 million at the end of 2004 and gradually declines over time.

The sole type of agency debt currently subject to the general limit is the debentures issued by the Federal Housing Administration, which were \$200 million at the end of 2004.¹⁰ 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 bonds and notes 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 7 to table 16–2 (and footnote 4 of table 16–5). The amount is relatively small: \$5.8 billion at the end of 2004 compared to the total unamortized discount (less premium) of \$51.2 billion on all Treasury securities.

¹⁰ For purposes of the debt limit, the FHA debt was calculated to be \$184 million.

Table 16-4. DEBT HELD BY GOVERNMENT ACCOUNTS¹
(In millions of dollars)

Description	Investment or Disinvestment (-)			Holdings end of 2006 estimate
	2004 actual	2005 estimate	2006 estimate	
Investment in Treasury debt:				
Energy:				
Nuclear waste disposal fund ¹	1,894	957		17,043
Uranium enrichment decontamination fund	247	453	270	4,380
Health and Human Services:				
Federal hospital insurance trust fund	13,068	9,809	17,583	291,767
Federal supplementary medical insurance trust fund	-7,410	1,164	14,868	33,471
Vaccine Injury compensation fund	118	148	166	2,329
Housing and Urban Development:				
Federal Housing Administration mutual mortgage fund	-499	4,400	2,603	30,324
Other HUD	321	345	308	8,219
Interior:Abandoned Mine Reclamation fund	118	3		2,048
Labor:				
Unemployment trust fund	-2,949	827		46,066
Pension Benefit Guaranty Corporation ¹	264	514	299	13,293
State:Foreign Service retirement and disability trust fund	538	582	96	13,506
Transportation:				
Highway trust fund	-3,366	2,980	450	13,642
Airport and airway trust fund	-626	-35	-629	9,228
Homeland Security:				
Oil spill liability trust fund	-126	-132	-187	510
Aquatic resources trust fund	34	-144		1,306
Treasury:Exchange stabilization fund	-184	394		10,713
Veterans Affairs:				
National service life insurance trust fund	-298	-395	-476	10,078
Other trust funds	37	16	12	2,033
Federal funds	-24	-25	-33	415
Other Defense-Civil:				
Uniformed Services Retiree Health Care Fund	17,418	22,209	23,626	81,699
Military retirement trust fund	4,918	10,319	8,370	195,969
Harbor maintenance trust fund	295	-404		1,833
Environmental Protection Agency:				
Hazardous substance trust fund	-281	143	150	2,520
Leaking underground storage tank trust fund	195	203		2,436
International Assistance Programs:				
Overseas Private Investment Corporation	137	166		3,961
Office of Personnel Management:				
Civil Service retirement and disability trust fund	30,151	31,941	31,290	695,091
Employees life insurance fund	1,329	1,280	1,319	30,706
Employees health benefits fund	1,737	1,316	1,344	13,434
Social Security Administration:				
Federal old-age and survivors insurance trust fund ²	139,172	151,016	164,948	1,768,563
Federal disability insurance trust fund ²	12,007	9,982	8,979	201,760
Farm Credit System Insurance Corporation:				
Farm Credit System Insurance fund	205	-92		1,924
Federal Deposit Insurance Corporation:				
Bank Insurance fund	1,035	1,276	37	33,402
FSLIC Resolution fund	50	297		3,310
Savings Association Insurance fund	430	625	340	12,817
National Credit Union Administration:Share insurance fund	352	441	409	6,909
Postal Service fund ²	-1,368	-1		1,282
Railroad Retirement Board trust funds ¹	-555	-212	490	2,042
Other Federal funds ³	4,584	454	11	13,874
Other trust funds ³	-384	-1,790	2	4,381
Unrealized discount, ³	-28	*		-1,477
Total, investment in Treasury debt¹	212,559	251,032	276,645	3,586,806

Table 16-4. DEBT HELD BY GOVERNMENT ACCOUNTS¹—Continued
(In millions of dollars)

Description	Investment or Disinvestment (-)			Holdings end of 2006 estimate
	2004 actual	2005 estimate	2006 estimate	
Total, investment in Federal debt¹	212,559	251,032	276,645	3,586,806
MEMORANDUM				
Investment by Federal funds (on-budget)	26,350	32,417	27,870	244,331
Investment by Federal funds (off-budget)	-1,368	-*	.....	1,282
Investment by trust funds (on-budget)	36,426	57,617	74,848	1,372,348
Investment by trust funds (off-budget)	151,178	160,998	173,927	1,970,323
Unrealized discount ¹	-28	*	.....	-1,477

* \$500 thousand or less.

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 Pension Benefit Guaranty Corporation (PBGC), 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 \$14.4 billion higher than recorded in this table at the end of 2004; the debt held by PBGC would be \$0.7 billion higher.

² Off-budget Federal entity.

³ Retroactive adjustments were made as of the end of 2003. The debt held by the Telecommunications Development Fund is not recorded as Federal debt (\$32 million); the debt held by the Railroad Retirement Board trust funds is increased by \$2 million; and the absolute value of the unrealized discount is decreased by \$193 million.

Changes in the debt limit.—The statutory debt limit has been changed many times. Since 1960, Congress has passed 71 separate acts to raise the limit, extend the duration of a temporary increase, or revise the definition. For a long period up to 1990, the debt limit was also changed frequently. During the 1990s, however, the debt limit was increased three times by amounts large enough to last for two years or more. All three of these increases were enacted as part of a deficit reduction package or a plan to balance the budget and were intended to last a relatively long time: the Omnibus Budget Reconciliation Act of 1990, the Omnibus Budget Reconciliation Act of 1993, and the Balanced Budget Act of 1997.¹¹

The Balanced Budget Act of 1997 increased the debt limit to \$5,950 billion, which lasted until 2002. The debt reached the limit in April 2002, the Treasury Department took a variety of administrative actions to keep within the limit, and on June 28 the President signed a bill to raise the limit to \$6,400 billion. This process was repeated within less than one year. The debt reached the limit in February 2003, the Treasury Department again responded with various administrative actions, and on May 27, 2003, the President signed a bill that raised the limit to \$7,384 billion.

This limit did not last much longer than the previous limit. By August 2004, the Secretary of Treasury wrote Congress that the debt subject to limit might reach the ceiling in September or October 2004. It did reach the limit on October 14 and stayed there until the limit was increased.

Treasury took a number of administrative steps to meet the Government's obligation to pay its bills and invest its trust funds while keeping debt under the statutory limit. On October 14, 2004, the Secretary of

Treasury declared that he would not be able to fully invest the Government Securities Investment Fund (G-fund) as of that day. This fund is one component of the Thrift Savings Fund, a defined contribution pension plan for Federal employees. The Secretary has statutory authority to suspend investment of the G-fund in Treasury securities as needed to prevent the debt from exceeding the debt limit. When he does this, he is required to make the fund whole after the debt limit has been raised by restoring the forgone interest and investing the fund fully. Starting on October 14, Treasury determined each day the amount of investments that would allow the fund to be invested as fully as possible without exceeding the debt limit. That amount was invested, and no more. The balances not invested varied throughout the period. In addition to this step, Treasury discontinued the acceptance of subscriptions to the state and local government series of securities.

As the need for financing grew, Treasury took further steps. On November 15, the Federal Financing Bank (FFB) issued \$14 billion of FFB securities to the Civil Service Retirement and Disability fund in exchange for an equal amount of regular Treasury securities, which FFB then exchanged with Treasury at market value in return for the extinguishment of an equal market value of FFB debt owed to Treasury. The FFB securities are not subject to the debt limit, as explained above, whereas the regular Treasury securities are subject to the limit. The Secretary also declared a debt issuance suspension period from November 17 to December 2. This allowed him to redeem a limited amount of securities held by the Civil Service Retirement and Disability fund and stop investing its receipts. Treasury disinvested part of the Exchange Stabilization fund for one day. Treasury also delayed the announcement of auctions of marketable securities.

¹¹ The Acts and the statutory limits since 1940 are listed in *Historical Tables, Budget of the United States Government*, table 7.3.

All the steps taken during October and November had also been taken on previous occasions when the debt had reached the statutory limit, including 2002 or 2003. When the debt limit was reached in those

years, Treasury also reduced its compensating balances held in banks to pay for services under financial agency agreements. However, compensating balances were discontinued in 2004, as explained in a previous section.

Table 16-5. FEDERAL FUNDS FINANCING AND CHANGE IN DEBT SUBJECT TO STATUTORY LIMIT

(In billions of dollars)

Description	Actual 2004	Estimate					
		2005	2006	2007	2008	2009	2010
Federal funds deficit (-)	-604.8	-653.0	-657.0	-583.5	-537.4	-530.7	-526.4
Means of financing other than borrowing:							
Change in: ¹							
Treasury operating cash balances	-1.4	1.3	.....	.....	.....	.....	.....
Compensating balances ²	22.2	.....	.....	.....	.....	.....	.....
Checks outstanding, etc. ³	9.1	6.9	18.9	0.5	0.3	0.5	0.5
Seignorage on coins	0.7	0.6	0.7	0.7	0.7	0.7	0.7
Less: Net financing disbursements:							
Direct loan financing accounts	-4.9	-9.1	-12.8	-20.0	-20.7	-20.1	-20.7
Guaranteed loan financing accounts	9.4	8.9	1.8	-2.3	-2.1	-3.2	-2.9
Total, means of financing other than borrowing	35.1	8.7	8.6	-21.1	-21.8	-22.2	-22.5
Decrease or increase (-) in Federal debt held by Federal funds	-25.0	-32.4	-27.9	-37.9	-39.3	-42.0	-44.9
Increase or decrease (-) in Federal debt not subject to limit	-0.3	13.4	-0.2	-0.5	-0.7	-2.8	-2.4
Total, requirement for Federal funds borrowing subject to debt limit	595.0	663.3	676.4	643.0	599.2	597.7	596.1
Change in discount and premium ⁴	0.7	.....	.....	.....	.....	.....	.....
Change in unrealized discount ⁵ .....	-*	.....	.....	.....	.....	.....	.....
Increase in debt subject to limit	595.7	663.3	676.4	643.0	599.2	597.7	596.1
ADDENDUM							
Debt subject to statutory limit ⁶	7,333.4	7,996.6	8,673.0	9,316.0	9,915.3	10,512.9	11,109.1

*\$50 million or less

¹ A decrease in the Treasury operating cash balance or compensating balances (which are assets) is a means of financing the deficit and therefore has a positive sign. An increase in checks outstanding (which is a liability) is also a means of financing the deficit and therefore also has a positive sign.

² Compensating balances were non-interest bearing Treasury bank deposits that Treasury mainly used to compensate banks for collecting tax and non-tax receipts under financial agency agreements. Most of the balances at the end of 2003 were required to be invested in nonmarketable Depository Compensation Securities issued by the Treasury; the rest of the balances, and the entire amount in previous years, was invested in the way that the banks decided. The use of compensating balances was discontinued in 2004 and the amounts were drawn down to zero.

³ Besides checks outstanding, 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 and compensating balances), miscellaneous asset accounts, and profit on the sale of gold.

⁴ 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. The unrealized discount is for Government account series securities.

⁶ The statutory debt limit is \$8,184 billion.

These Treasury actions were used for a little more than one month. Congress passed a bill raising the debt limit to \$8,184 billion on November 18, and the President signed the bill on November 19. Treasury promptly invested the G-fund and Civil Service Retirement and Disability fund fully and restored the forgone interest as prescribed by law. The securities whose auctions were postponed were issued on time, except for one issue of 4-week bills that was delayed a few days, and subscriptions to the state and local government series were accepted again.

Methods of changing the debt limit.—The statutory limit is usually changed by normal legislative procedures. Under the rules adopted by the House of Representatives, it can also be changed as a consequence

of the annual Congressional budget resolution, which is not itself a law. The budget resolution includes a provision specifying the appropriate level of the debt subject to limit at the end of each fiscal year. The rule provides that, when the budget resolution is adopted by both Houses of the Congress, the vote in the House of Representatives is deemed to have been a vote in favor of a joint resolution setting the statutory limit at the level specified in the budget resolution. The joint resolution is transmitted to the Senate for further action, where it may be amended to change the debt limit provision or in any other way. If it passes both Houses of the Congress, it is sent to the President for his signature.

The House of Representatives first adopted this rule for 1980, although it was not included in the rules for several years before 2003.

Federal funds financing and the change in debt subject to limit.—The change in debt held by the public, as shown in table 16–2, is determined primarily by the total Government deficit or surplus. The debt 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. The effect of debt held by Government accounts on the total debt subject to limit is brought out sharply in the second part of table 16–2. The change in debt held by Government accounts is a large proportion of the change in total debt subject to limit each year and accounts for half of the estimated total increase from 2005 through 2010.

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 receipts earmarked by law for specified purposes, such as paying Social Security benefits or making grants to state governments for highway construction.¹²

A Federal funds deficit must generally be financed by borrowing, which can be done 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 Treasury securities that are subject to the statutory debt limit. Very little debt subject to statutory limit has been issued for reasons except to finance the Federal funds deficit. 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. Trust fund surpluses are almost entirely invested in securities subject to the debt limit, and trust funds hold most of the debt held by Government accounts.

Table 16–5 derives the change in debt subject to limit. In 2004 the Federal funds deficit was \$605 billion, and other factors reduced the requirement to borrow subject to limit by \$9 billion. The largest of these factors was ending the use of compensating balances, which allowed borrowing to be reduced by \$22 billion. The net financing disbursements of the guaranteed loan financing accounts reduced the financing requirements by \$9 billion, as explained in an earlier section. As an offset, special funds and revolving funds, which are part of the Federal funds group, invested \$25 billion in Treasury securities. The largest single investment was \$17 billion for the uniformed services retiree health care fund. As a net result of all these factors, debt

subject to limit increased by \$596 billion, while debt held by the public increased by \$382 billion.

The debt subject to limit is estimated to increase to \$7,997 billion by the end of 2005, which begins to approach the present statutory debt limit of \$8,184 billion. This is caused by a rise in the Federal funds deficit, supplemented by the other factors shown in table 16–5. Some of these factors are large, especially the investment by Federal special and revolving funds and in particular the special fund for uniformed services retiree health care. As a result, while debt held by the public increases by \$1,916 billion from the end of 2004 through 2010, debt subject to limit increases by \$3,776 billion.

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 16–6, foreign holdings were just over \$10.0 billion, less than 5 percent of the total Federal debt held by the public.

Foreign holdings began to grow significantly starting in 1970. This increase has been almost entirely due to decisions by foreign central banks, corporations, and individuals, rather than the direct marketing of these securities to foreign residents. At the end of 2004 foreign holdings of Treasury debt were \$1,886 billion, which was 44 percent of the total debt held by the public.¹³ Foreign central banks owned 64 percent of the Federal debt held by foreign residents; private investors owned nearly all the rest. The percentage held by foreign central banks is up from 56 percent at the end of 2003, because they bought much greater quantities of Treasury securities than did private investors. All the Federal debt held by foreign residents is denominated in dollars.

Although the amount of Federal debt held by foreign residents has grown greatly over this period, the proportion that foreign residents own, after increasing abruptly in the very early 1970s, remained about 15–20 percent 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 public.¹⁴ As a result, the Federal debt held by individuals and institutions within the United States decreased in absolute amount during those years, despite further Federal borrowing, 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. In the next few years the change in foreign debt holdings was much smaller. However, the Federal debt held by foreign residents increased by \$255 billion in 2003 and by \$430 billion in 2004.

¹³The debt calculated by the Bureau of Economic Analysis, Department of Commerce, is different, though similar in size, because of a different method of valuing the securities.

¹⁴Table 16–6 does not show the increase in foreign holdings in 1995 because of a benchmark revision. As explained in footnote 3 to that table, a benchmark revision reduced the estimated holdings as of December 1994 (by \$47.9 billion). Because estimates of foreign holdings were not revised retroactively, the increase in 1995 was more than the difference between the beginning and end of year amounts as now calculated. Before the benchmark revision, the increase was estimated to be \$192.6 billion.

¹²For further discussion of the trust funds and Federal funds groups, see chapter 22, "Trust Funds and Federal Funds."

The percentage of Federal debt held by foreign residents increased from 34 percent to 44 percent during these two years. In 2004, the increase in foreign holdings was more than the total Federal borrowing from the public.

Table 16-6. FOREIGN HOLDINGS OF FEDERAL DEBT

(Dollar amounts in billions)

Fiscal Year	Debt held by the public			Borrowing from the public	
	Total	Foreign ¹	Percentage foreign	Total ²	Foreign ¹
1965	260.8	12.3	4.7	3.9	0.3
1966	263.7	11.6	4.4	2.9	-0.7
1967	266.6	11.4	4.3	2.9	-0.2
1968	289.5	10.7	3.7	22.9	-0.7
1969	278.1	10.3	3.7	-11.4	-0.4
1970	283.2	14.0	5.0	5.1	3.8
1971	303.0	31.8	10.5	19.8	17.8
1972	322.4	49.2	15.2	19.3	17.3
1973	340.9	59.4	17.4	18.5	10.3
1974	343.7	56.8	16.5	2.8	-2.6
1975	394.7	66.0	16.7	51.0	9.2
1976	477.4	69.8	14.6	82.7	3.8
TQ	495.5	74.6	15.1	18.1	4.9
1977	549.1	95.5	17.4	53.6	20.9
1978	607.1	121.0	19.9	58.0	25.4
1979 ³	640.3	120.3	18.8	33.2	N/A
1980	711.9	121.7	17.1	71.6	1.4
1981	789.4	130.7	16.6	77.5	9.0
1982	924.6	140.6	15.2	135.2	9.9
1983	1,137.3	160.1	14.1	212.7	19.5
1984	1,307.0	175.5	13.4	169.7	15.4
1985 ³	1,507.3	222.9	14.8	200.3	N/A
1986	1,740.6	265.5	15.3	233.4	42.7
1987	1,889.8	279.5	14.8	149.1	14.0
1988	2,051.6	345.9	16.9	161.9	66.4
1989	2,190.7	394.9	18.0	139.1	49.0
1990 ³	2,411.6	440.3	18.3	220.8	N/A
1991	2,689.0	477.3	17.7	277.4	37.0
1992	2,999.7	535.2	17.8	310.7	57.9
1993	3,248.4	591.3	18.2	248.7	56.1
1994	3,433.1	655.8	19.1	184.7	64.5
1995 ³	3,604.4	800.4	22.2	171.3	N/A
1996	3,734.1	978.1	26.2	129.7	177.7
1997	3,772.3	1,218.2	32.3	38.3	240.0
1998	3,721.1	1,216.9	32.7	-51.2	-1.2
1999 ³	3,632.4	1,281.4	35.3	-88.7	N/A
2000 ³	3,409.8	1,057.9	31.0	-222.6	N/A
2001	3,319.6	1,005.5	30.3	-90.2	-52.3
2002 ³	3,540.4	1,200.8	33.9	220.8	N/A
2003	3,913.4	1,455.8	37.2	373.0	255.0
2004	4,295.5	1,885.9	43.9	382.1	430.2

N/A = Not available.

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 Benchmark revisions reduced the estimated foreign holdings of the Federal debt as of December 1978; increased the estimated foreign holdings as of December 1984 and December 1989; reduced the estimated holdings as of December 1994 and March 2000; and increased the estimated holdings as of June 2002. A conceptual revision increased the estimated foreign holdings as of 1999. The change in debt that is recorded as held by foreign residents in these fiscal years reflects the benchmark or conceptual revisions as well as the net purchases of Federal securities. Borrowing is therefore not shown in these years.

Foreign holdings of Federal debt are around 15 percent of the foreign-owned assets in the United States, depending on the method of measuring total assets. 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.

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; it permits mortgage interest to be deducted in calculating taxable income; 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 7 of this volume, "Credit and Insurance." Detailed data are presented in tables at the end of that chapter.

16. FEDERAL BORROWING AND DEBT

Debt is the largest legally binding obligation of the Federal Government. At the end of 2005, the Government owed \$4,592 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 \$191 billion of interest on this debt.

Table 16-1. TRENDS IN FEDERAL DEBT HELD BY THE PUBLIC

(Dollar amounts in billions)

Fiscal Year	Debt held by the public:		Debt held by the public as a percent of:		Interest on the debt held by the public as a percent of: ³	
	Current Dollars	FY 2000 dollars ¹	GDP	Credit market debt ²	Total outlays	GDP
1946	241.9	1,821.3	108.6	N/A	7.4	1.8
1950	219.0	1,339.9	80.2	53.3	11.4	1.8
1955	226.6	1,217.3	57.4	43.2	7.6	1.3
1960	236.8	1,128.0	45.7	33.8	8.5	1.5
1965	260.8	1,161.4	38.0	26.9	8.1	1.4
1970	283.2	1,047.8	28.0	20.8	7.9	1.5
1975	394.7	1,074.6	25.3	18.4	7.5	1.6
1980	711.9	1,340.7	26.1	18.5	10.6	2.3
1985	1,507.3	2,164.6	36.4	22.3	16.2	3.7
1990	2,411.6	2,968.1	42.0	22.6	16.1	3.5
1991	2,689.0	3,190.0	45.3	24.1	16.2	3.6
1992	2,999.7	3,471.2	48.1	25.7	15.5	3.4
1993	3,248.4	3,675.4	49.4	26.6	14.9	3.2
1994	3,433.1	3,802.6	49.3	26.8	14.4	3.0
1995	3,604.4	3,910.1	49.2	26.7	15.8	3.3
1996	3,734.1	3,974.6	48.5	26.3	15.8	3.2
1997	3,772.3	3,946.3	46.1	25.4	15.7	3.1
1998	3,721.1	3,846.1	43.1	23.5	15.1	2.9
1999	3,632.4	3,705.9	39.8	21.5	13.8	2.6
2000	3,409.8	3,409.8	35.1	19.2	13.0	2.4
2001	3,319.6	3,243.1	33.0	17.7	11.6	2.1
2002	3,540.4	3,393.9	34.1	17.7	8.9	1.7
2003	3,913.4	3,678.7	36.2	18.0	7.5	1.5
2004	4,295.5	3,943.5	37.2	18.3	7.3	1.5
2005	4,592.2	4,102.8	37.4	17.9	7.7	1.6
2006 estimate	5,018.9	4,373.6	38.5	N/A	8.5	1.8
2007 estimate	5,391.5	4,597.6	39.2	N/A	9.4	1.9
2008 estimate	5,633.4	4,701.8	38.8	N/A	10.2	2.0
2009 estimate	5,859.4	4,789.6	38.3	N/A	10.5	2.0
2010 estimate	6,060.8	4,852.5	37.6	N/A	10.6	2.0
2011 estimate	6,285.9	4,927.6	37.1	N/A	10.6	2.0

N/A=Not available.

¹Debt in current dollars deflated by the GDP chain-type price index with fiscal year 2000 equal to 100.

²Total credit market debt owed by domestic nonfinancial sectors, modified in some 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.

³Interest on debt held by the public is estimated as the interest on Treasury debt securities less the "interest received by trust funds" (subfunction 901 less subfunctions 902 and 903). 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 deficit was \$318 billion in 2005. This deficit, partially offset by other financing transactions totaling \$22 billion, required the Government to increase its borrowing from the public by \$297 billion last year. Debt held by the public rose from 37.2 percent of GDP at the end of 2004 to 37.4 percent at the end of 2005. The deficit is estimated to rise in 2006 before declining. Debt as a percentage of GDP is estimated to rise through 2007 before starting to decline gradually through 2011.

Trends in Debt Since World War II

Table 16-1 depicts trends in Federal debt held by the public from World War II to the present and estimates from the present through 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 GDP in 1946, just after the end of the war. From then until the 1970s, 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 80.2 percent of GDP to 25.3 percent, and from 53.3 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 spending surged and 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 at the beginning of the 1980s, due in large part to a deep recession, and the ratio of Federal debt to GDP grew sharply. The ratio of Federal debt to credit market debt also rose, though to a 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 declined markedly relative to both GDP and total credit market debt. The decline accelerated as surpluses emerged from 1997 to 2001. Debt fell steadily from 49.4 percent of GDP in 1993 to 33.0 percent in 2001; and it fell more unevenly from 26.8 percent of total credit market debt in 1994 to 17.7 percent in 2001 and 2002. Interest on this debt, relative to total outlays and GDP, declined as well. Interest as a share of outlays peaked at 16.5 percent in 1989 and then fell to 8.9 percent by 2002; interest as a percentage of GDP fell in a similar proportion.

The downward trend in debt relative to GDP ceased as economic conditions changed and the September 11 terrorist attacks occurred. The decline in the stock market, the recession, and the initially slow recovery all reduced tax receipts; tax relief had the same effect; and spending increased for war and homeland security. As a result of the ensuing deficits, debt began to rise, both in nominal terms and as a percentage of GDP. Spending is also increasing in 2006, due in part to the rebuilding after Hurricane Katrina, but deficits are expected to begin to decline in 2007. As deficits are reduced, the increase in debt is estimated to slow. Debt is estimated to continue rising in nominal dollars, but to begin declining gradually after 2007 as a percent of GDP.

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.¹ 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."²

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. Regardless of whether 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 credit market sectors for financial resources in the credit market. 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 future taxes required to pay interest to the public on Federal debt. Borrowing

¹Debt 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 book value equals the sales price. Subsequently, it equals the sales price plus the amount of the discount that has been amortized up to that time. In equivalent terms, the book 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 revised. In 1997 Treasury began to sell inflation-indexed notes and bonds. The book value of these securities includes a periodic adjustment for inflation.

²The 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 16-3 but also the debt of the Government-sponsored enterprises listed in table 7-9 at the end of Chapter 7 of this volume and certain Government-guaranteed securities.

Table 16-2. FEDERAL GOVERNMENT FINANCING AND DEBT

(In billions of dollars)

	Actual 2005	Estimate					
		2006	2007	2008	2009	2010	2011
Financing:							
Unified budget deficit (-)	-318.3	-423.2	-354.2	-223.3	-207.6	-182.7	-204.9
Financing other than the change in debt held by the public:							
Net purchases (-) of non-Federal securities by the National Railroad Retirement Investment Trust	-2.1	0.3	*	*	0.1	0.2	0.6
Changes in: ¹							
Treasury operating cash balance	0.7						
Checks outstanding, etc. ²	16.5						
Seigniorage on coins	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Less: Net financing disbursements:							
Direct loan financing accounts	-4.9	-16.1	-18.3	-18.8	-19.2	-19.4	-21.0
Guaranteed loan financing accounts	10.7	11.6	-0.8	-0.5	-0.1	-0.2	-0.5
Total, financing other than the change in debt held by the public	21.7	-3.5	-18.3	-18.6	-18.5	-18.7	-20.2
Total, requirement to borrow from the public	-296.7	-426.7	-372.6	-241.9	-226.0	-201.4	-225.1
Change in debt held by the public	296.7	426.7	372.6	241.9	226.0	201.4	225.1
Changes in Debt Subject to Limitation:							
Change in debt held by the public	296.7	426.7	372.6	241.9	226.0	201.4	225.1
Change in debt held by Government accounts	254.0	279.5	311.4	328.0	345.6	344.3	328.9
Change in other factors	-13.0	0.4	0.6	0.6	2.8	2.4	2.5
Total, change in debt subject to statutory limitation	537.7	706.5	684.5	570.5	574.4	548.1	556.5
Debt Subject to Statutory Limitation, End of Year:							
Debt issued by Treasury	7,879.2	8,585.7	9,270.2	9,840.7	10,413.0	10,959.4	11,514.2
Less: Treasury debt not subject to limitation(-) ³	-14.5	-14.5	-14.5	-14.5	-12.4	-10.7	-8.9
Agency debt subject to limitation	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Adjustment for discount and premium ⁴	6.3	6.3	6.3	6.3	6.3	6.3	6.3
Total, debt subject to statutory limitation ⁵	7,871.0	8,577.6	9,262.1	9,832.5	10,406.9	10,955.1	11,511.6
Debt Outstanding, End of Year:							
Gross Federal debt: ⁶							
Debt issued by Treasury	7,879.2	8,585.7	9,270.2	9,840.7	10,413.0	10,959.4	11,514.2
Debt issued by other agencies	26.2	25.8	25.2	24.7	24.0	23.2	22.5
Total, gross Federal debt	7,905.3	8,611.5	9,295.4	9,865.3	10,436.9	10,982.7	11,536.7
Held by:							
Debt held by Government accounts	3,313.1	3,592.6	3,904.0	4,231.9	4,577.5	4,921.8	5,250.8
Debt held by the public ⁷	4,592.2	5,018.9	5,391.5	5,633.4	5,859.4	6,060.8	6,285.9

* \$50 million or less.

¹ A decrease in the Treasury operating cash balance (which is an asset) is a means of financing a deficit and therefore has a positive sign. An increase in checks outstanding (which is a liability) is also a means of financing a deficit and therefore also has a positive sign.² Besides checks outstanding, includes accrued interest payable on Treasury debt, uninvested deposit fund balances, allocations of special drawing rights, and other liability accounts; and, as an offset, cash and monetary assets (other than the Treasury operating cash balance), other asset accounts, and profit on sale of gold.³ Consists primarily of Federal Financing Bank debt.⁴ Consists mainly 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.⁵ The statutory debt limit is \$8,184 billion, enacted on November 19, 2004.⁶ Treasury securities held by the public and zero-coupon bonds held by Government accounts are almost all measured at sales price plus amortized discount or less amortized premium. Agency debt securities are almost all measured at face value. Treasury securities in the Government account series are otherwise measured at face value less unrealized discount (if any).⁷ At the end of 2005, the Federal Reserve Banks held \$736.4 billion of Federal securities and the rest of the public held \$3,855.9 billion. Debt held by the Federal Reserve Banks is not estimated for future years.

from the public is therefore an important concern of Federal fiscal policy.³

Issuing debt securities to Government accounts performs an essential function in accounting for the oper-

³The Federal subsector of the national income and product accounts provides a measure of "net government saving" (based on current expenditures and current receipts) 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 subsector and its differences from the budget are discussed in Chapter 14 of this volume, "National Income and Product Accounts."

ation 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 that is credited to these funds accounts for the fact that some earmarked taxes and user fees will be spent at a later time than when the funds receive the monies. The debt securities are a liability of the general fund to the fund that holds the securities and

are a mechanism for crediting interest to that fund on its recorded balances. These accounting balances generally provide the fund with authority to draw upon the U.S. Treasury in later years to make future payments on its behalf to the public. Public policy may 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 is not financed by private saving and does not 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, which itself obtains real resources by taxation and borrowing; and its current interest does not have to be financed by taxes or other means.

Furthermore, the debt held by Government accounts does not represent the estimated amount of the account's obligations or responsibilities to make future payments to 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 estimated future benefits (or future benefits less taxes) for the current participants in the program; nor does it represent the actuarial present value of estimated future benefits (or future benefits less taxes) for the current participants plus the estimated future participants over some stated time period. The future transactions of Federal social insurance and employee retirement programs, which own 91 percent of the debt held by Government accounts, are important in their own right and need to be analyzed separately. This can be done through information published in the actuarial and financial reports for these programs.⁴

This Budget uses a variety of information sources to analyze the condition of Social Security and Medicare, the Government's two largest social insurance programs. Chapter 13 of the present volume, "Stewardship," projects Social Security and Medicare outlays to 2080 relative to GDP. It also discusses in some detail the actuarial projections prepared for the Social Security and Medicare trustees reports to evaluate the long-run actuarial deficiency or shortfall in these programs. A chapter in the main volume of the Budget, "The Nation's Fiscal Outlook," uses the same data in less detail to explain the long-run fiscal problems of Social Security and Medicare revealed by these projections. The actuarial shortfalls are very different in concept and much larger in size than the amount of Treasury debt that these programs hold.

⁴ 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 major Federal employee retirement funds. The actuarial estimates for these and other programs are summarized in the *Financial Report of the United States Government*, prepared annually by the Treasury Department.

For all these reasons, debt held by the public is 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 liabilities are incurred when the Government guarantees the payment of interest and principal on private loans; and liabilities for future pension and retiree health 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 the "Stewardship" Chapter of this volume. The different types of liabilities are reported annually in the financial statements of Federal agencies and in the *Financial Report of the United States Government*, prepared by the Treasury Department.

Government Surpluses or Deficits and the Change in Debt

Table 16–2 summarizes Federal borrowing and debt from 2005 through 2011. In 2005 the Government borrowed \$297 billion, so the debt held by the public increased to \$4,592 billion. The debt held by Government accounts increased \$254 billion, and gross Federal debt increased by \$551 billion to \$7,905 billion.

Debt held by the public. The Federal Government primarily finances deficits by borrowing from the public, and it primarily uses surpluses to repay debt held by the public. Table 16–2 shows the relationship between the Federal deficit or surplus and the change in debt held by the public. The borrowing or debt repayment 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 12 of this volume, "Economic Assumptions."

The total or unified budget surplus consists of two parts: the on-budget surplus or deficit; 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.⁵ The off-budget totals are virtually the same as Social Security, which had a large surplus in 2005 and is estimated to have large surpluses throughout the projection period. The on-budget and off-budget surpluses or deficits are added together to determine the Government's financing needs.

⁵ For further explanation of the off-budget Federal entities, see Chapter 23 of this volume, "Off-Budget Federal Entities and Non-Budgetary Activities."

The Government's need to borrow, or its ability to repay debt held by the public, has always depended on several other factors besides the unified budget surplus or deficit, such as the change in the Treasury operating cash balance. As shown in Table 16–2, 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 need to borrow. (An increase in its need to borrow is represented by a negative sign, like the deficit.) Some of these individual factors themselves may be either positive or negative, and some of them vary considerably in size from year to year. In 2005 the deficit was \$318 billion and the “financing other than the change in debt held by the public” was \$22 billion. As a result, the Government borrowed \$297 billion from the public.

Over the long-run, it is a good approximation to say that “the deficit is financed by borrowing from the public” or “the surplus is used to repay debt held by the public.” Over the last 20 years, the cumulative deficit was \$2,918 billion and the increase in debt held by the public was \$3,085 billion. Thus, the other factors added a total of \$167 billion of borrowing, an average of \$8 billion per year.

In individual years it is also often a good approximation to say that the deficit and borrowing (or the surplus and debt repayment) are about the same. The variation, however, can be wide, ranging over the last 20 years from additional borrowing (or lower repayment) of \$63 billion in 2002 to reduced borrowing of \$30 billion in 2004. The other factors are estimated to increase borrowing in each of the years from 2006 through 2011, by amounts ranging from \$4 billion in 2006 to \$20 billion in 2011. Three specific factors presented in Table 16–2 have recently been especially important.

Change in Treasury operating cash balance.—The operating cash balance decreased \$26 billion during 2003, partly because it was higher than planned at the end of the previous year. Since then, however, changes in the operating cash balance have been much smaller, with a \$1 billion increase in 2004 and a \$1 billion decrease in 2005. The operating cash balance is estimated to again be essentially the same at the end of 2006. Changes in the operating cash balance, while occasionally large, are inherently limited. Decreases in cash—a means of financing the Government—are limited by the amount of past accumulations, which themselves required financing when they were built up. Increases are limited because it is more efficient to repay debt.

Net purchases of non-Federal securities by the National Railroad Retirement Investment Trust.—This trust fund was established by the Railroad Retirement and Survivors' Improvement Act of 2001. Most of the assets in the Railroad Retirement Board trust funds were transferred to the new trust fund in 2003, which invests its assets primarily in private stocks and bonds. The Act ordered special treatment of the purchase or sale of non-Federal assets by this trust fund, treating

such purchases as a means of financing rather than an outlay. Therefore, the increased need to borrow from the public to finance the purchase of non-Federal assets is part of the “financing other than the change in debt held by the public” rather than included as an increase in the deficit. This increased borrowing and publicly held debt by \$20 billion in 2003. Net purchases were relatively small in 2004 and 2005 and are estimated to remain relatively small in future years.⁶

Net financing disbursements of the direct loan and guaranteed loan financing accounts.—The financing accounts were created by the Federal Credit Reform Act of 1990. Under this Act, budget outlays for direct loans and loan guarantees consist of the estimated subsidy 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—the disbursement and repayment of loans, the default payments on loan guarantees, the collections of interest and fees, and so forth—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.⁷

The financing accounts also include several types of intra-governmental transactions. In particular, they receive payment from the credit program accounts for the costs of new direct loans and loan guarantees; they also receive payment for any upward reestimate of the costs of direct loans and loan guarantees outstanding. These collections are offset against the gross disbursements of the financing accounts in determining the accounts' total net cash flows. The total net cash flows of the financing accounts, consisting of transactions with both the public and the budgetary accounts, are called “net financing disbursements.” They are defined in the same way as the “outlays” of a budgetary account and therefore affect the requirement for borrowing from the public in the same way as the deficit.

The result is that the intragovernmental transactions of the financing accounts do not affect Federal borrowing from the public. Although the deficit changes because of the budget's outlay to, or receipt from, a financing account, the net financing disbursement changes in an equal amount with the opposite sign, so the effects cancel out. 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. Likewise, financing account receipts from the public can be used to finance the payment of the Government's obligations, and therefore they reduce the requirement for Federal borrowing from

⁶The budget treatment of this fund is further discussed in Chapter 26 of this volume, “The Budget System and Concepts.”

⁷The Federal Credit Reform Act of 1990 (sec. 505(b)) requires that the financing accounts be non-budgetary. As explained in Chapter 23 of this volume, “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 26 of this volume, “The Budget System and Concepts,” and the other references cited in Chapter 23 of this volume.

the public in the same way as an increase in budget receipts.

The impact of the financing accounts became large in the mid-1990s. In 2004 and 2005, large upward re-estimates were made in the cost of outstanding direct and guaranteed loans. The credit program accounts in the budget made large outlays to the financing accounts, which in turn had equal offsetting collections and therefore large negative net financing disbursements. The result is shown as a positive amount in Table 16–2, canceling out the effect of a higher budget deficit on the Government's borrowing requirement. Large upward reestimates are also estimated for 2006, after which the pattern is expected to be more normal. The financing accounts are estimated to increase the need for borrowing by \$5 billion in 2006 and from \$19 billion to \$22 billion in each of the following five years. A major part of this financing is normally due to the direct student loan program. 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.

In addition, prior to 2005, the *change in compensating balances* was an important factor. Treasury used compensating balances—deposits of non-interest bearing balances—to compensate banks for collecting tax and non-tax receipts and providing other services. The imputed earnings from the compensating balances, calculated at the 91-day Treasury bill rate, were the source of the bank's compensation for performing the required services. Banks could use the compensating balances on deposit to make loans or buy investments, and all compensating balances were fully collateralized. However, the compensating balances presented difficulties for cash and debt management. First, changes in the applied interest rate required Treasury to change the size of compensating balances on deposit to pay for the services it needed. Second, when the debt outstanding reached the statutory debt limit, Treasury had to draw down the compensating balances and then make up for this action afterwards by increasing the balances to unusually high levels. These actions were inefficient and disruptive, and they created financial uncertainty for Treasury and the banks.

In large part because of these difficulties, the 2004 Budget proposed legislation to replace compensating balances by a permanent indefinite appropriation to pay banks directly for their services as depositaries and financial agents. Congress included a permanent indefinite appropriation in the Consolidated Appropriation Act of 2004 (P.L. 108–199), and compensating balances were drawn down to zero during 2004.

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 2005. In 2005, the total trust fund surplus was

\$237 billion, and trust funds invested \$226 billion in Federal securities. Investment may differ somewhat from the surplus due to changes in the amount of cash assets not currently invested. The remainder of debt issued to Government accounts is owned by a number of special funds and revolving funds. The debt held in major accounts and the annual investments are shown in Table 16–4.

Agency Debt

Several Federal agencies, shown in Table 16–3, sell debt securities to the public and at times in the past have sold securities to other Government accounts. During 2005, agencies repaid \$0.7 billion of debt held by the public, resulting in total agency debt of \$26.2 billion as of the end of the year. Agency debt is less than one percent of Federal debt held by the public. Agencies are estimated to repay small amounts of debt in 2006 and 2007.

The reasons for issuing agency debt differ considerably from one agency to another. The predominant agency borrower is the Tennessee Valley Authority, which had borrowed \$26 billion from the public as of the end of 2005, or 98 percent of the total debt of all agencies. (In some earlier periods, other agencies accounted for a much higher proportion of agency debt than they do now.) TVA sells debt primarily to finance capital expenditures.

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. This borrowing is thus inherent in the way that the FHA program operates. Issuing debentures to pay the Government's bills is equivalent to selling securities to the public and then paying the bills by disbursing the cash borrowed, so the transaction is recorded as being simultaneously an outlay and a borrowing. The debentures are therefore classified as agency debt.

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 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.

Under current budgetary treatment, outlays for a lease-purchase without substantial private risk are 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 are recorded when the contract is signed. Agency borrowing is recorded each year to the extent of these outlays. The agency debt is subsequently redeemed over the lease payment period by a portion

Table 16-3. AGENCY DEBT

(In millions of dollars)

	Borrowing or repayment (-) of debt			Debt end of 2007 estimate
	2005 actual	2006 estimate	2007 estimate	
Borrowing from the public:				
Housing and Urban Development:				
Federal Housing Administration	-54	*	.....	146
Small Business Administration:				
Participation certificates: Section 505 development company .....	.....	-*	-7	.....
Architect of the Capitol	-3	-4	-4	152
Farm Credit System Financial Assistance Corporation	-325	.....	.....	.....
National Archives	-8	-9	-10	215
Tennessee Valley Authority:				
Bonds and Notes	-156	-208	-387	22,501
Lease/leaseback obligations	-35	-33	-39	1,071
Prepayment obligations	-105	-106	-105	1,155
Total, borrowing from the public	-686	-360	-552	25,241
Borrowing from other funds:				
Tennessee Valley Authority .....	.....	.....	.....	1
Total, borrowing from other funds .....	.....	.....	.....	1
Total, agency borrowing	-686	-360	-552	25,242

* \$500,000 or less.

of the annual lease payments according to an amortization schedule.⁸

The Tennessee Valley Authority has traditionally financed its capital construction by selling bonds and notes to the public. Starting in 2000, it has also employed two types of alternative financing methods. The first type of alternative financing method was lease/leasebacks. TVA signed contracts to lease some recently constructed power generators to private investors and simultaneously lease them back. It received a lump sum for leasing out its assets, and then leased them back at fixed annual payments for a set number of years. TVA retains substantially all of the economic benefits and risks related to ownership of the assets, and the lease/leasebacks are reported as liabilities on TVA's balance sheet under generally accepted accounting principles.

The Office of Management and Budget determined that the TVA lease/leasebacks are a means of financing the acquisition of assets owned and used by the Government. The arrangement is at least as governmental as a "lease-purchase without substantial private risk." The budget therefore records the upfront cash proceeds from the lease as borrowing from the public, not offsetting collections. Agency debt in the form of a lease obligation is recorded as a type of borrowing. The same budget treatment was applied to the lease/leaseback of qualified technological equipment in 2003. The total

⁸This rule of budgetary treatment became effective in 1991. The rule addressed all lease-purchases and capital leases from the public, not just those without substantial private risk. For all such contracts, the rule requires that budget authority be recorded up front for the present value of the lease payments. This budgetary treatment was reviewed in connection with the Balanced Budget Act of 1997. Some clarifications were made, but no substantive changes. See OMB Circular No. A-11, Appendix B. Also see the section on outlays in Chapter 26 of this volume, "The Budget System and Concepts."

amount of the lease obligations beginning in 2000 is shown in Table 16-3 separately from TVA bonds and notes to distinguish between the types of borrowing. The obligations for lease/leasebacks were \$1.1 billion at the end of 2005 and are estimated to decline steadily in the following years as they are amortized.

The second type of alternative financing method is prepayments for power that TVA sells to its power distributors. Under the Discounted Energy Units program, which began in 2003, distributors may prepay a portion of the price of the power they plan to purchase in the future. In return, they obtain a discount on a specific quantity of the future power they buy from TVA. The quantity varies, depending on TVA's estimated cost of borrowing. Most of the prepayments have been relatively small. However, TVA also entered into a contract with Memphis Light, Gas, and Water (MLGW), under which that distributor prepaid \$1.5 billion in 2004 for a large portion of its power needs over the next 15 years in return for a discount on that power. MLGW, in turn, financed its prepayment by selling tax-exempt bonds.

The Office of Management and Budget determined that these prepayments are also a means of financing the acquisition of assets owned and used by the Federal Government, or, in effect, are used to refinance debt previously incurred to finance such assets. They are equivalent in concept to other forms of borrowing from the public, although at different terms and conditions. The prepayment obligations are recorded as liabilities, called "unearned revenue," on TVA's balance sheet under generally accepted accounting principles. The budget therefore records the upfront cash proceeds from the prepayment as borrowing from the public, not off-

setting collections. Agency debt in the form of a prepayment obligation is recorded as a type of borrowing. The total amount of prepayment obligations is shown in Table 16–3 separately from bonds and notes and lease/leaseback obligations to distinguish among the types of borrowing. The prepayment obligations increased from zero to \$47 million during 2003 and to \$1,471 billion at the end of 2004 because of the contract with Memphis Light, Gas, and Water. The obligations declined by \$0.1 billion in 2005 and are estimated to continue to decline steadily in the following years as TVA provides electric power under the contracts.

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.

Debt Held by Government Accounts

Trust funds, and some special funds and public enterprise revolving funds, accumulate cash in excess of current needs in order to meet future obligations. These cash surpluses are generally invested in Treasury debt.

Investment by trust funds and other Government accounts has risen greatly for many years. It was \$254 billion in 2005, as shown in Table 16–4, and is estimated to rise to \$311 billion in 2007. The holdings of Federal securities by Government accounts are estimated to grow to \$3,904 billion by the end of 2007, or 42 percent of the gross Federal debt. The percentage is estimated to rise gradually in the following years, as the trust funds and several major revolving funds and special funds continue to accumulate surpluses.

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 \$546 billion during 2005–07, which is 65 percent of the total estimated investment by Government accounts. The funds for Federal employee retirement also invest a large share of the total. The principal trust fund for Federal civilian employees is the civil service retirement and disability trust fund, which accounts for 11 percent of the total investment by Government accounts during 2005–07. The military retirement trust fund and the special fund for uniformed services retiree health care account for another 13 percent. The two Medicare trust funds—Hospital Insurance and Supplementary Medical Insurance—account for another 9 percent. Altogether, the investment by Social Security, Medicare, and these three Federal employee retirement funds is almost as much as the total invest-

ment by Government accounts during this period. At the end of 2007, they are estimated to own 92 percent of the total debt held by Government accounts. Many of the other Government accounts also increase their holdings of Federal securities during this period.

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 16–4 at par value less unamortized discount. The only two Government accounts that held zero-coupon bonds during the period of this table are the Nuclear Waste Disposal fund in the Department of Energy and the Pension Benefit Guaranty Corporation (PBG). The total unamortized discount on zero-coupon bonds was \$16.5 billion at the end of 2005.

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 and debt held by the public, the unrealized discount is the discount at the time of issue and is not amortized over the term of the security. In Table 16–4 it is shown as a separate item at the end of the table and not distributed by account. The amount was \$1.6 billion at the end of 2005.

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 third part of Table 16–2 compares total Treasury debt with the amount of Federal debt that is subject to the limit. Nearly all Treasury debt is subject to the debt limit. Most of the Treasury debt not subject to the general statutory limit was issued by the Federal Financing Bank (FFB). The FFB, which is within the Treasury Department, is authorized to have outstanding up to \$15 billion of publicly issued debt. It issued \$14 billion of securities to the Civil Service Re-

tiement and Disability fund on November 15, 2004, in exchange for an equal amount of regular Treasury securities, as explained below in the section on changes in the debt limit. The FFB securities have the same interest rates and maturities as the regular Treasury securities for which they were exchanged. The securities mature on dates from June 30, 2009 through June 30, 2019. The securities are assumed to remain outstanding until they mature. The other Treasury debt not subject to the general limit consists almost entirely of silver certificates and other currencies no longer being issued. It was \$509 million at the end of 2005 and gradually declines over time.

The sole agency debt currently subject to the general limit, \$130 million at the end of 2005, is certain debentures issued by the Federal Housing Administration.⁹ 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 bonds and notes 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 earlier 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. The amount is relatively small: \$6.3 billion at the end of 2005 compared to the total unamortized discount (less premium) of \$53.5 billion on all Treasury securities.

Table 16-4. DEBT HELD BY GOVERNMENT ACCOUNTS¹
(In millions of dollars)

Description	Investment or Disinvestment (-)			Holdings end of 2007 estimate
	2005 actual	2006 estimate	2007 estimate	
Investment in Treasury debt:				
Energy:				
Nuclear waste disposal fund ¹	1,592	804	845	19,327
Uranium enrichment decontamination fund	234	298	301	4,490
Health and Human Services:				
Federal hospital insurance trust fund	12,892	18,386	20,579	316,233
Federal supplementary medical insurance trust fund	-235	11,430	9,514	38,148
Vaccine injury compensation fund	151	197	199	2,561
Housing and Urban Development:				
Federal Housing Administration mutual mortgage fund	-678	465		23,107
Other HUD	387	320	330	8,603
Interior: Abandoned mine reclamation fund	90	140	170	2,445
Labor:				
Unemployment trust fund	9,567	-8,740	13,610	59,676
Pension Benefit Guaranty Corporation ¹	-111	-807	-113	11,448
State: Foreign service retirement and disability trust fund	532	20	20	13,399
Transportation:				
Highway trust fund	-1,941	2,358	-1,120	9,509
Airport and airway trust fund	156	-980	-151	8,916
Homeland Security:				
Oil spill liability trust fund	-98	-134	-11	587
Aquatic resources trust fund	99	-445	198	1,301
Treasury: Exchange stabilization fund	4,919	214		15,452
Veterans Affairs:				
National service life insurance trust fund	-351	-423	-484	9,690
Other trust funds	32	16	10	2,063
Federal funds	-24	-28	-31	390
Other Defense-Civil:				
Uniformed services retiree health care fund	17,009	30,288	32,324	115,485
Military retirement trust fund	1	16,856	9,146	203,284
Harbor maintenance trust fund	384	-788		1,833
Environmental Protection Agency:				
Hazardous substance trust fund	98	19		2,344
Leaking underground storage tank trust fund	204	-1		2,436
International Assistance Programs:				
Overseas Private Investment Corporation	234	135	136	4,300
Office of Personnel Management:				
Civil service retirement and disability trust fund	28,890	30,004	30,465	721,219

⁹ At the end of 2005, \$16 million of FHA debentures was not subject to limit.

Table 16-4. DEBT HELD BY GOVERNMENT ACCOUNTS¹—Continued
(In millions of dollars)

Description	Investment or Disinvestment (-)			Holdings end of 2007 estimate
	2005 actual	2006 estimate	2007 estimate	
Employees life insurance fund	1,378	1,452	1,642	32,579
Employees health benefits fund	1,759	1,548	1,053	15,134
Social Security Administration:				
Federal old-age and survivors insurance trust fund ²	163,560	171,664	185,852	1,973,675
Federal disability insurance trust fund ²	10,464	8,251	6,558	208,072
Farm Credit System Insurance Corporation:				
Farm Credit System Insurance fund	-77	-14	.....	1,924
Federal Deposit Insurance Corporation:				
Bank insurance fund	644	-32,733	.....	.....
FSLIC resolution fund	110	187	.....	3,310
Savings association insurance fund	473	-12,325	.....	.....
Deposit insurance fund .....	.....	46,219	.....	46,219
National Credit Union Administration: Share insurance fund	364	344	386	7,153
Postal Service fund ²	-65	*	.....	1,218
Railroad Retirement Board trust funds ¹	236	439	10	2,449
Other Federal funds ³	2,827	-5,120	-165	10,934
Other trust funds	-1,561	-52	127	4,682
Unrealized discount ¹	-168	.....	.....	-1,645
Total, investment in Treasury debt¹	253,974	279,463	311,400	3,903,950
Investment in agency debt:				
Railroad Retirement Board:				
National Railroad Retirement Investment Trust .....	.....	.....	.....	1
Total, investment in agency debt¹				1
Total, investment in Federal debt¹	253,974	279,463	311,400	3,903,951
MEMORANDUM				
Investment by Federal funds (on-budget)	27,991	28,386	34,183	274,587
Investment by Federal funds (off-budget)	-65	*	.....	1,218
Investment by trust funds (on-budget)	52,192	71,162	84,807	1,448,044
Investment by trust funds (off-budget)	174,024	179,915	192,410	2,181,747
Unrealized discount ¹	-168	.....	.....	-1,645

* \$500 thousand or less.

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 Pension Benefit Guaranty Corporation (PBGC), 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 \$15.9 billion higher than recorded in this table at the end of 2005; the debt held by PBGC would be \$0.7 billion higher.

² Off-budget Federal entity.

³ Includes a \$16 million decrease to the debt held by the National Archives and Records Administration at the end of 2004.

Changes in the debt limit.—The statutory debt limit has been changed many times. Since 1960, Congress has passed 71 separate acts to raise the limit, extend the duration of a temporary increase, or revise the definition. For a long period up to 1990, the debt limit was also changed frequently. During the 1990s, however, the debt limit was increased three times by amounts large enough to last for two years or more. All three of these increases were enacted as part of a deficit reduction package or a plan to balance the budget and were intended to last a relatively long time: the Omnibus Budget Reconciliation Act of 1990, the Omnibus Budget Reconciliation Act of 1993, and the Balanced Budget Act of 1997.¹⁰

¹⁰The Acts and the statutory limits since 1940 are listed in *Historical Tables, Budget of the United States Government, Fiscal Year 2007*, Table 7.3.

The Balanced Budget Act of 1997 increased the debt limit to \$5,950 billion, which lasted until 2002. When the debt reached the limit in April 2002, the Treasury Department took a variety of administrative actions to keep within the limit, and on June 28 the President signed a bill to raise the limit to \$6,400 billion. This process was repeated within less than one year. The debt reached the limit in February 2003, so the Treasury Department again responded with various administrative actions, and on May 27, 2003, the President signed a bill that raised the limit to \$7,384 billion.

This limit did not last much longer than the previous limit. By August 2004, the Secretary of Treasury wrote Congress that the debt subject to limit might reach the ceiling in September or October 2004. It did reach the limit on October 14 and stayed there until the limit was increased.

Treasury took a number of administrative steps during this period to meet the Government's obligation to pay its bills and invest its trust funds while keeping debt under the statutory limit. On October 14, 2004, the Secretary of Treasury declared that he would not be able to fully invest the Government Securities Investment Fund (G-fund) as of that day. This fund is one component of the Thrift Savings Fund, a defined contribution pension plan for Federal employees. The Secretary has statutory authority to suspend investment of the G-fund in Treasury securities as needed to prevent the debt from exceeding the debt limit. When he does this, he is required to make the fund whole after the debt limit has been raised by restoring the forgone interest and investing the fund fully. Starting on October 14, Treasury determined each day the amount of investments that would allow the fund to be invested as fully as possible without exceeding the debt limit. That amount was invested, and no more. The balances not invested varied throughout the period. In addition to this step, Treasury discontinued the acceptance of subscriptions to the State and local government series of securities.

As the need for financing grew, Treasury took further steps. On November 15, 2004, the Federal Financing

Bank (FFB) issued \$14 billion of FFB securities to the Civil Service Retirement and Disability fund in exchange for an equal amount of regular Treasury securities, which FFB then exchanged with Treasury at market value in return for the extinguishment of an equal market value of FFB debt owed to Treasury. The FFB securities are not subject to the debt limit, as explained above, whereas the regular Treasury securities are subject to the limit. The Secretary also declared a debt issuance suspension period from November 17 to December 2. This allowed him to redeem a limited amount of securities held by the Civil Service Retirement and Disability fund and stop investing its receipts. Treasury disinvested part of the Exchange Stabilization fund for one day. Treasury also delayed the announcement of auctions of marketable securities.

All the steps taken during October and November had also been taken on previous occasions when the debt had reached the statutory limit, including in 2002 or 2003. When the debt limit was reached in those years, Treasury also reduced its compensating balances held in banks to pay for services under financial agency agreements. However, compensating balances were discontinued in 2004, as explained in a previous section.

Table 16-5. FEDERAL FUNDS FINANCING AND CHANGE IN DEBT SUBJECT TO STATUTORY LIMIT

(In billions of dollars)

Description	Actual 2005	Estimate					
		2006	2007	2008	2009	2010	2011
Federal funds deficit (-)	-555.1	-688.9	-620.4	-517.7	-516.9	-487.2	-490.5
Means of financing other than borrowing:							
Change in: ¹							
Treasury operating cash balances	0.7						
Other ²	25.0	14.9	-11.0	*	0.1	0.2	0.6
Seignorage on coins	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Less: Net financing disbursements:							
Direct loan financing accounts	-4.9	-16.1	-18.3	-18.8	-19.2	-19.4	-21.0
Guaranteed loan financing accounts	10.7	11.6	-0.8	-0.5	-0.1	-0.2	-0.5
Total, means of financing other than borrowing	32.2	11.1	-29.4	-18.6	-18.5	-18.7	-20.2
Decrease or increase (-) in Federal debt held by Federal funds	-27.9	-28.4	-34.2	-33.6	-36.2	-39.8	-43.4
Increase or decrease (-) in Federal debt not subject to limit	13.4	-0.4	-0.6	-0.6	-2.8	-2.4	-2.5
Total, requirement for Federal funds borrowing subject to debt limit	537.5	706.5	684.5	570.5	574.4	548.1	556.5
Change in adjustment for discount and premium ³	0.4						
Change in unrealized discount ⁴	-0.2						
Increase in debt subject to limit	537.7	706.5	684.5	570.5	574.4	548.1	556.5
ADDENDUM							
Debt subject to statutory limit ⁵	7,871.0	8,577.6	9,262.1	9,832.5	10,406.9	10,955.1	11,511.6

* \$50 million or less.

¹ A decrease in the Treasury operating cash balance (which is an asset) is a means of financing the deficit and therefore has a positive sign. An increase in checks outstanding (which is a liability) is also a means of financing the deficit and therefore also has a positive sign.

² Includes Federal fund transactions that correspond to those defined in table 16-2, footnote 2, but that are for Federal funds alone with respect to the public and trust funds.

³ 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.

⁴ The unrealized discount is for Government account series securities.

⁵ The statutory debt limit is \$8,184 billion, enacted on November 19, 2004.

These Treasury actions were used for a little more than one month. Congress passed a bill raising the debt limit to \$8,184 billion on November 18, and the President signed the bill on November 19. Treasury promptly invested the G-fund and Civil Service Retirement and Disability fund fully and restored the forgone interest as prescribed by law. The securities whose auctions were postponed were issued on time, except for one issue of 4-week bills that was delayed a few days, and subscriptions to the State and local government series were accepted again.

On December 29, 2005, the Secretary of Treasury sent the Congress a letter stating that the statutory debt limit enacted in November 2004 would be reached in mid-February 2006. The letter stated that even if Treasury took steps such as those used previously once the Government reached the debt limit, Treasury could not continue to finance Government operations past mid-March.

Methods of changing the debt limit.—The statutory limit is usually changed by normal legislative procedures. Under the rules adopted by the House of Representatives, it can also be changed as a consequence of the annual Congressional budget resolution, which is not itself a law. The budget resolution includes a provision specifying the appropriate level of the debt subject to limit at the end of each fiscal year. The rule provides that, when the budget resolution is adopted by both Houses of the Congress, the vote in the House of Representatives is deemed to have been a vote in favor of a Joint Resolution setting the statutory limit at the level specified in the budget resolution. The Joint Resolution is transmitted to the Senate for further action, where it may be amended to change the debt limit provision or in any other way. If it passes both Houses of the Congress, it is sent to the President for his signature.

The House of Representatives first adopted this rule for 1980, although it was not included in the rules for several years before 2003. By virtue of adopting the Congressional budget resolution for 2005, the House was deemed to have voted in favor of raising the debt limit to a level of \$8,965 billion. The Senate had not taken action on this limit as of the writing of this Budget.

Federal funds financing and the change in debt subject to limit.—The change in debt held by the public, as shown in Table 16–2, is determined primarily by the total Government deficit or surplus. The debt 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 ac-

counts. The effect of debt held by Government accounts on the total debt subject to limit is brought out sharply in the second part of Table 16–2. The change in debt held by Government accounts is a large proportion of the change in total debt subject to limit each year and accounts for half of the estimated total increase from 2006 through 2011.

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 receipts earmarked by law for specified purposes, such as paying Social Security benefits or making grants to state governments for highway construction.¹¹

A Federal funds deficit must generally be financed by borrowing, which can be done 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 Treasury securities that are subject to the statutory debt limit. Very little debt subject to statutory limit has been issued for reasons except to finance the Federal funds deficit. 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. Trust fund surpluses are almost entirely invested in securities subject to the debt limit, and trust funds hold most of the debt held by Government accounts.

Table 16–5 derives the change in debt subject to limit. In 2005 the Federal funds deficit was \$555 billion, and other factors reduced the requirement to borrow subject to limit by \$18 billion. The net financing disbursements of the guaranteed loan financing accounts reduced the financing requirements by \$11 billion, as explained in an earlier section. As an offset, special funds and revolving funds, which are part of the Federal funds group, invested \$28 billion in Treasury securities. The largest single investment was \$17 billion for the uniformed services retiree health care fund. As a net result of all these factors, debt subject to limit increased by \$538 billion, while debt held by the public increased by \$297 billion.

The debt subject to limit is estimated to increase to \$8,578 billion by the end of 2006, which exceeds the present statutory debt limit of \$8,184 billion. This is caused by a rise in the Federal funds deficit, supplemented by the other factors shown in Table 16–5. As a result, while debt held by the public increases by \$1,694 billion from the end of 2005 through 2011, debt subject to limit increases by \$3,641 billion.

¹¹ For further discussion of the trust funds and Federal funds groups, see Chapter 22 of this volume, "Trust Funds and Federal Funds."

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 16-6, foreign holdings were just over \$10 billion, less than 5 percent of the total Federal debt held by the public.

Foreign holdings began to grow significantly starting in 1970. This increase has been almost entirely due to decisions by foreign central banks, corporations, and individuals, rather than the direct marketing of these securities to foreign residents. At the end of 2005 foreign holdings of Treasury debt were \$2,070 billion, which was 45 percent of the total debt held by the public.¹² Foreign central banks owned 63 percent of the Federal debt held by foreign residents; private investors owned nearly all the rest. The percentage held by foreign central banks is down slightly from 64 percent at the end of 2004. All the Federal debt held by foreign residents is denominated in dollars.

Although the amount of Federal debt held by foreign residents has grown greatly over this period, the pro-

portion that foreign residents own, after increasing abruptly in the very early 1970s, remained about 15-20 percent 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 public.¹³ As a result, the Federal debt held by individuals and institutions within the United States decreased in absolute amount during those years, despite further Federal borrowing, 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. In the next few years the change in foreign debt holdings was much smaller. However, the Federal debt held by foreign residents increased by \$253 billion in 2003, \$382 billion in 2004, and \$233 billion in 2005. The percentage of Federal debt held by foreign residents increased from 34 percent to 45 percent during these three years. The increase in foreign holdings was slightly greater than the total Federal borrowing from the public in 2004 and about 80 percent of total Federal borrowing in 2005.

Table 16-6. FOREIGN HOLDINGS OF FEDERAL DEBT

(Dollar amounts in billions)

Fiscal Year	Debt held by the public			Borrowing from the public	
	Total	Foreign ¹	Percentage foreign	Total ²	Foreign ¹
1965	260.8	12.3	4.7	3.9	0.3
1966	263.7	11.6	4.4	2.9	-0.7
1967	266.6	11.4	4.3	2.9	-0.2
1968	289.5	10.7	3.7	22.9	-0.7
1969	278.1	10.3	3.7	-11.4	-0.4
1970	283.2	14.0	5.0	5.1	3.8
1971	303.0	31.8	10.5	19.8	17.8
1972	322.4	49.2	15.2	19.3	17.3
1973	340.9	59.4	17.4	18.5	10.3
1974	343.7	56.8	16.5	2.8	-2.6
1975	394.7	66.0	16.7	51.0	9.2
1976	477.4	69.8	14.6	82.7	3.8
TQ	495.5	74.6	15.1	18.1	4.9
1977	549.1	95.5	17.4	53.6	20.9
1978	607.1	121.0	19.9	58.0	25.4
1979 ³	640.3	120.3	18.8	33.2	N/A
1980	711.9	121.7	17.1	71.6	1.4
1981	789.4	130.7	16.6	77.5	9.0
1982	924.6	140.6	15.2	135.2	9.9
1983	1,137.3	160.1	14.1	212.7	19.5
1984	1,307.0	175.5	13.4	169.7	15.4
1985 ³	1,507.3	222.9	14.8	200.3	N/A
1986	1,740.6	265.5	15.3	233.4	42.7
1987	1,889.8	279.5	14.8	149.1	14.0
1988	2,051.6	345.9	16.9	161.9	66.4
1989	2,190.7	394.9	18.0	139.1	49.0
1990 ³	2,411.6	440.3	18.3	220.8	N/A
1991	2,689.0	477.3	17.7	277.4	37.0
1992	2,999.7	535.2	17.8	310.7	57.9
1993	3,248.4	591.3	18.2	248.7	56.1

¹²The debt calculated by the Bureau of Economic Analysis, Department of Commerce, is different, though similar in size, because of a different method of valuing the securities.

¹³Table 16-6 does not show the increase in foreign holdings in 1995 because of a benchmark revision. As explained in footnote 3 to that table, a benchmark revision reduced

the estimated holdings as of December 1994 (by \$47.9 billion). Because estimates of foreign holdings were not revised retroactively, the increase in 1995 was more than the difference between the beginning and end of year amounts as now calculated. Before the benchmark revision, the increase was estimated to be \$192.6 billion.

Table 16-6. FOREIGN HOLDINGS OF FEDERAL DEBT—Continued

(Dollar amounts in billions)

Fiscal Year	Debt held by the public			Borrowing from the public	
	Total	Foreign ¹	Percentage foreign	Total ²	Foreign ¹
1994	3,433.1	655.8	19.1	184.7	64.5
1995 ³	3,604.4	800.4	22.2	171.3	N/A
1996	3,734.1	978.1	26.2	129.7	177.7
1997	3,772.3	1,218.2	32.3	38.3	240.0
1998	3,721.1	1,216.9	32.7	-51.2	-1.2
1999 ³	3,632.4	1,281.4	35.3	-88.7	N/A
2000 ³	3,409.8	1,057.9	31.0	-222.6	N/A
2001	3,319.6	1,005.5	30.3	-90.2	-52.3
2002 ³	3,540.4	1,200.8	33.9	220.8	N/A
2003	3,913.4	1,454.2	37.2	373.0	253.4
2004	4,295.5	1,836.6	42.8	382.1	382.4
2005	4,592.2	2,070.0	45.1	296.7	233.4

N/A = Not available.

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 Benchmark revisions reduced the estimated foreign holdings of the Federal debt as of December 1978; increased the estimated foreign holdings as of December 1984 and December 1989; reduced the estimated holdings as of December 1994 and March 2000; and increased the estimated holdings as of June 2002. A conceptual revision increased the estimated foreign holdings as of 1999. The change in debt that is recorded as held by foreign residents in these fiscal years reflects the benchmark or conceptual revisions as well as the net purchases of Federal securities. Borrowing is therefore not shown in these years.

Foreign holdings of Federal debt are around 15–20 percent of the foreign-owned assets in the United States, depending on the method of measuring total assets. 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.

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 assist-

ance 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; it permits mortgage interest to be deducted in calculating taxable income; 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 7 of this volume, “Credit and Insurance.” Detailed data are presented in tables at the end of that chapter.

16. FEDERAL BORROWING AND DEBT

Debt is the largest legally binding obligation of the Federal Government. At the end of 2006, the Government owed \$4,829 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 \$237 billion of interest on this debt.

Table 16-1. TRENDS IN FEDERAL DEBT HELD BY THE PUBLIC

(Dollar amounts in billions)

Fiscal Year	Debt held by the public:		Debt held by the public as a percent of:		Interest on the debt held by the public as a percent of: ³	
	Current Dollars	FY 2000 dollars ¹	GDP	Credit market debt ²	Total outlays	GDP
1946	241.9	1,821.3	108.6	N/A	7.4	1.8
1950	219.0	1,339.9	80.2	53.3	11.4	1.8
1955	226.6	1,217.3	57.4	43.2	7.6	1.3
1960	236.8	1,128.0	45.7	33.7	8.5	1.5
1965	260.8	1,161.4	38.0	26.9	8.1	1.4
1970	283.2	1,047.8	28.0	20.8	7.9	1.5
1975	394.7	1,074.6	25.3	18.4	7.5	1.6
1980	711.9	1,340.7	26.1	18.5	10.6	2.3
1985	1,507.3	2,164.6	36.4	22.3	16.2	3.7
1990	2,411.6	2,968.1	42.0	22.6	16.1	3.5
1991	2,689.0	3,190.0	45.3	24.1	16.2	3.6
1992	2,999.7	3,471.2	48.1	25.7	15.5	3.4
1993	3,248.4	3,675.4	49.4	26.6	14.9	3.2
1994	3,433.1	3,802.6	49.3	26.8	14.4	3.0
1995	3,604.4	3,910.1	49.2	26.7	15.8	3.3
1996	3,734.1	3,974.6	48.5	26.3	15.8	3.2
1997	3,772.3	3,946.3	46.1	25.4	15.7	3.1
1998	3,721.1	3,846.1	43.1	23.5	15.1	2.9
1999	3,632.4	3,705.9	39.8	21.5	13.8	2.6
2000	3,409.8	3,409.8	35.1	19.1	13.0	2.4
2001	3,319.6	3,243.1	33.0	17.6	11.6	2.1
2002	3,540.4	3,393.9	34.1	17.6	8.9	1.7
2003	3,913.4	3,677.1	36.2	17.9	7.5	1.5
2004	4,295.5	3,934.3	37.3	18.1	7.3	1.5
2005	4,592.2	4,081.7	37.4	17.7	7.7	1.6
2006	4,829.0	4,163.7	37.0	17.2	8.9	1.8
2007 estimate	5,083.3	4,274.5	36.9	N/A	9.0	1.8
2008 estimate	5,345.4	4,388.8	36.8	N/A	9.6	1.9
2009 estimate	5,553.6	4,458.1	36.3	N/A	9.8	1.9
2010 estimate	5,671.2	4,456.2	35.2	N/A	9.9	1.9
2011 estimate	5,748.3	4,425.7	33.9	N/A	9.8	1.8
2012 estimate	5,711.1	4,311.2	32.1	N/A	9.7	1.8

N/A=Not available.

¹Debt in current dollars deflated by the GDP chain-type price index with Fiscal Year 2000 equal to 100.

²Total credit market debt owed by domestic nonfinancial sectors, modified in some 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.

³Interest on debt held by the public is estimated as the interest on Treasury debt securities less the "interest received by trust funds" (subfunction 901 less subfunctions 902 and 903). 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 deficit was \$248 billion in 2006, down from \$318 billion in 2005. This \$248 billion deficit, partially offset by other financing transactions totaling \$11 billion, required the Government to increase its borrowing from the public by \$237 billion last year. Debt held by the public fell from 37.4 percent of Gross Domestic Product (GDP) at the end of 2005 to 37.0 percent of GDP at the end of 2006. The deficit is estimated to continue to fall, with the Federal Government achieving surplus in 2012. Debt as a percentage of GDP is also estimated to continue to fall, reaching 32.1 percent of GDP in 2012.

Trends in Debt Since World War II

Table 16–1 depicts trends in Federal debt held by the public from World War II to the present and estimates from the present through 2012. (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.) Federal debt peaked at 108.6 percent of GDP in 1946, just after the end of the war. From then until the 1970s, 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 80.2 percent of GDP to 25.3 percent, and from 53.3 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 spending surged and as the economy was disrupted by oil shocks and rising 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 at the beginning of the 1980s, due in large part to a deep recession, and the ratio of Federal debt to GDP grew sharply. The ratio of Federal debt to credit market debt also rose, though to a 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 declined markedly relative to both GDP and total credit market debt. The decline accelerated as surpluses emerged from 1997 to 2001. Debt fell steadily from 49.4 percent of GDP in 1993 to 33.0 percent in 2001; and it fell more unevenly from 26.8 percent of total credit market debt in 1994 to 17.6 percent in 2001 and 2002. Interest on this debt, relative to total outlays and GDP, declined as well. Interest as a share of outlays peaked at 16.5 percent in 1989 and then fell to

8.9 percent by 2002; interest as a percentage of GDP fell in a similar proportion.

The downward trend in debt relative to GDP ceased in 2002 as economic conditions changed following the September 11 terrorist attacks. The decline in the stock market, the recession, and the initially slow recovery all reduced tax receipts; tax relief had the same effect; and spending increased due to the Global War on Terror. Consequently, deficits ensued and debt began to rise, both in nominal terms and as a percentage of GDP. However, a growing economy led to a revival of receipts and deficits fell in 2005 and 2006. Deficits are expected to continue to fall in 2007 through 2012. In nominal dollars, debt is estimated to continue to rise through 2011 and then to begin to fall in 2012 when the Government achieves surplus. Debt as a percent of GDP fell in 2006 and is expected to fall by nearly five percentage points by the end of 2012.

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.¹ Second, it issues debt to Government accounts, primarily trust funds, that accumulate surpluses. (As used in this Budget, debt held by Government accounts refers to debt held by Federal Government accounts; investments by State and local governments in Federal securities are included as debt held by the public.) 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.”²

Borrowing from the public, whether by the Treasury or by some other Federal agency, is normally a good approximation of the Federal demand on credit markets. Regardless of whether the proceeds are used for tangible or intangible investment or to finance current consumption, 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 credit market sectors for financial resources in the credit market. Borrowing from the public thus affects the size and composition of assets held by the private sector, and the amount of saving imported from abroad. It also increases the amount

¹Treasury debt held by the public is measured as the sales price plus the amortized discount (or less the amortized premium). At the time of sale, the book value equals the sales price. Subsequently, it equals the sales price plus the amount of the discount that has been amortized up to that time. In equivalent terms, the book value of the debt equals the principal amount due at maturity (par or face value) less the unamortized discount. (For a security sold at a premium, the definition is symmetrical.) For inflation-indexed notes and bonds, the book value includes a periodic adjustment for inflation. Agency debt is generally recorded at par.

²The 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 16–3, but also the debt of the Government-sponsored enterprises listed in Table 7–9 at the end of Chapter 7 of this volume and certain Government-guaranteed securities.

Table 16-2. FEDERAL GOVERNMENT FINANCING AND DEBT

(In billions of dollars)

	Actual 2006	Estimate					
		2007	2008	2009	2010	2011	2012
Financing:							
Unified budget deficit (-)/surplus (+)	-248.2	-244.2	-239.4	-187.2	-94.4	-53.8	61.0
Financing other than borrowing from the public:							
Net purchases of non-Federal securities by the National Railroad Retirement Investment Trust (-)	-1.8	-0.9	*	*	0.2	0.6	0.3
Changes in: ¹							
Treasury operating cash balance (-)	-16.4	7.1					
Checks outstanding, etc. ²	12.7						
Seigniorage on coins	0.7	0.8	0.7	0.6	0.5	0.5	0.5
Credit net financing disbursements (-):							
Direct loan financing accounts	-4.7	-10.6	-16.7	-14.7	-18.0	-19.1	-20.5
Guaranteed loan financing accounts	21.0	-6.6	-6.8	-7.0	-5.9	-5.4	-4.2
Total, financing other than borrowing from the public	11.4	-10.1	-22.8	-21.0	-23.2	-23.3	-23.8
Total, requirement to borrow from the public	-236.8	-254.3	-262.2	-208.2	-117.5	-77.1	37.2
Change in debt held by the public	236.8	254.3	262.2	208.2	117.5	77.1	-37.2
Changes in Debt Subject to Limitation:							
Change in debt held by the public	236.8	254.3	262.2	208.2	117.5	77.1	-37.2
Change in debt held by Government accounts	309.3	302.1	305.6	354.6	381.7	400.1	409.7
Less: change in debt not subject to limit and other adjustments	3.2	0.2	0.6	2.6	2.4	2.5	2.1
Total, change in debt subject to statutory limitation	549.2	556.6	568.3	565.5	501.7	479.7	374.6
Debt Subject to Statutory Limitation, End of Year:							
Debt issued by Treasury	8,425.6	8,982.2	9,550.5	10,113.9	10,613.8	11,091.8	11,465.0
Less: Treasury debt not subject to limitation (-) ³	-14.5	-14.5	-14.5	-12.4	-10.7	-8.9	-7.6
Agency debt subject to limitation	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Adjustment for discount and premium ⁴	9.1	9.1	9.1	9.1	9.1	9.1	9.1
Total, debt subject to statutory limitation ⁵	8,420.3	8,976.9	9,545.2	10,110.6	10,612.3	11,092.0	11,466.6
Debt Outstanding, End of Year:							
Gross Federal debt: ⁶							
Debt issued by Treasury	8,425.6	8,982.2	9,550.5	10,113.9	10,613.8	11,091.8	11,465.0
Debt issued by other agencies	25.8	25.6	25.0	24.5	23.7	23.0	22.3
Total, gross Federal debt	8,451.4	9,007.8	9,575.5	10,138.3	10,637.6	11,114.8	11,487.3
Held by:							
Debt held by Government accounts	3,622.4	3,924.5	4,230.1	4,584.7	4,966.4	5,366.5	5,776.2
Debt held by the public ⁷	4,829.0	5,083.3	5,345.4	5,553.6	5,671.2	5,748.3	5,711.1

¹ A decrease in the Treasury operating cash balance (which is an asset) is a means of financing a deficit and therefore has a positive sign. An increase in checks outstanding (which is a liability) is also a means of financing a deficit and therefore also has a positive sign.

² Besides checks outstanding, includes accrued interest payable on Treasury debt, uninvested deposit fund balances, allocations of special drawing rights, and other liability accounts; and, as an offset, cash and monetary assets (other than the Treasury operating cash balance), other asset accounts, and profit on sale of gold.

³ Consists primarily of Federal Financing Bank debt.

⁴ Consists mainly 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.

⁵ The statutory debt limit is \$8,965 billion, enacted on March 20, 2006.

⁶ Treasury securities held by the public and zero-coupon bonds held by Government accounts are almost all measured at sales price plus amortized discount or less amortized premium. Agency debt securities are almost all measured at face value. Treasury securities in the Government account series are otherwise measured at face value less unrealized discount (if any).

⁷ At the end of 2006, the Federal Reserve Banks held \$768.9 billion of Federal securities and the rest of the public held \$4,060.0 billion. Debt held by the Federal Reserve Banks is not estimated for future years.

of future resources required to pay interest to the public on Federal debt. Borrowing from the public is therefore an important concern of Federal fiscal policy.³

³The Federal subsector of the national income and product accounts provides a measure of "net government saving" (based on current expenditures and current receipts) 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 subsector and its differences from the budget are discussed in Chapter 14 of this volume, "National Income and Product Accounts."

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 that is credited to these funds accounts for the fact that some earmarked taxes and user fees will

be spent at a later time than when the funds receive the monies. The debt securities are a liability of the general fund to the fund that holds the securities and are a mechanism for crediting interest to that fund on its recorded balances. These accounting balances generally provide the fund with authority to draw upon the U.S. Treasury in later years to make future payments on its behalf to the public. Public policy may 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 credit market 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 is not financed by private saving and does not 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, which itself obtains real resources by taxation and borrowing; and its current interest does not have to be financed by other resources.

Furthermore, the debt held by Government accounts does not represent the estimated amount of the account's obligations or responsibilities to make future payments to 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 estimated future benefits (or future benefits less taxes) for the current participants in the program; nor does it represent the actuarial present value of estimated future benefits (or future benefits less taxes) for the current participants plus the estimated future participants over some stated time period. The future transactions of Federal social insurance and employee retirement programs, which own 91 percent of the debt held by Government accounts, are important in their own right and need to be analyzed separately. This can be done through information published in the actuarial and financial reports for these programs.⁴

This Budget uses a variety of information sources to analyze the condition of Social Security and Medicare, the Government's two largest social insurance programs. Chapter 13 of the present volume, "Stewardship," projects Social Security and Medicare outlays to the year 2080 relative to GDP. It also discusses in some detail the actuarial projections prepared for the Social Security and Medicare trustees reports to evaluate the long-run actuarial deficiency or shortfall in these programs. A chapter in the main volume of the Budget, "The Nation's Fiscal Outlook," uses the same data in less detail to explain the long-run fiscal problems of Social Security and Medicare revealed by these projections. The actuarial shortfalls are very different

⁴Extensive 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 major Federal employee retirement funds. The actuarial estimates for these and other programs are summarized in the *Financial Report of the United States Government*, prepared annually by the Treasury Department.

in concept and much larger in size than the amount of Treasury debt that these programs hold.

For all these reasons, debt held by the public is a better gauge of the effect of the budget on the credit markets than gross Federal debt.

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 liabilities are incurred when the Government guarantees the payment of interest and principal on private loans; and liabilities for future pension and retiree health 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 the "Stewardship" Chapter of this volume. The different types of liabilities are reported annually in the financial statements of Federal agencies and in the *Financial Report of the United States Government*, prepared by the Treasury Department.

Government Surpluses or Deficits and the Change in Debt

Table 16-2 summarizes Federal borrowing and debt from 2006 through 2012. In 2006 the Government borrowed \$237 billion, increasing the debt held by the public from \$4,592 billion at the end of 2005 to \$4,829 billion at the end of 2006. The debt held by Government accounts increased \$309 billion, and gross Federal debt increased by \$546 billion to \$8,451 billion.

Debt held by the public. The Federal Government primarily finances deficits by borrowing from the public, and it primarily uses surpluses to repay debt held by the public. Table 16-2 shows the relationship between the Federal deficit or surplus and the change in debt held by the public. The borrowing or debt repayment 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 12 of this volume, "Economic Assumptions."

The total or unified budget surplus consists of two parts: the on-budget surplus or deficit; 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.⁵ The off-budget totals are virtually the same as Social Security, which had a large surplus in 2006 and is estimated to have large surpluses throughout the projection pe-

⁵For further explanation of the off-budget Federal entities, see Chapter 23 of this volume, "Off-Budget Federal Entities and Non-Budgetary Activities."

riod. The on-budget and off-budget surpluses or deficits are added together to determine the Government's financing needs.

The Government's need to borrow, or its ability to repay debt held by the public, has always depended on several other factors besides the unified budget surplus or deficit, such as the change in the Treasury operating cash balance. As shown in Table 16-2, these other factors, which in this table are called "financing other than borrowing from the public," can either increase or decrease the Government's need to borrow. (An increase in its need to borrow is represented by a negative sign, like the deficit.) Some of these individual factors themselves may be either positive or negative, and some of them vary considerably in size from year to year. In 2006 the deficit was \$248 billion and the "financing other than borrowing from the public" was \$11 billion. As a result, the Government borrowed \$237 billion from the public.

Over the long-run, it is a good approximation to say that "the deficit is financed by borrowing from the public" or "the surplus is used to repay debt held by the public." Over the last 20 years, the cumulative deficit was \$2,945 billion and the increase in debt held by the public was \$3,088 billion. Thus, the other factors added a total of \$143 billion of borrowing, an average of \$7 billion per year.

In individual years it is also often a good approximation to say that the deficit and borrowing (or the surplus and debt repayment) are about the same. The variation, however, can be wide, ranging over the last 20 years from additional borrowing (or lower repayment) of \$63 billion in 2002 to reduced borrowing of \$30 billion in 2004. The other factors are estimated to increase borrowing in each of the years from 2007 through 2012, by amounts ranging from \$10 billion in 2007 to \$24 billion in 2012. Three specific factors presented in Table 16-2 have recently been especially important.

Change in Treasury operating cash balance.—The operating cash balance decreased \$26 billion during 2003, partly because it was higher than planned at the end of the previous year. Since then, however, changes in the operating cash balance have been smaller, with a \$1 billion increase in 2004 and a \$1 billion decrease in 2005. The cash balance increased \$16 billion in 2006. The operating cash balance is estimated to decrease by \$7 billion by the end of 2007 and then to remain essentially the same. Changes in the operating cash balance, while occasionally large, are inherently limited. Decreases in cash—a means of financing the Government—are limited by the amount of past accumulations, which themselves required financing when they were built up. Increases are limited because it is more efficient to repay debt.

Net purchases of non-Federal securities by the National Railroad Retirement Investment Trust.—This trust fund was established by the Railroad Retirement and Survivors' Improvement Act of 2001. In 2003, most of the assets in the Railroad Retirement Board trust

funds were transferred to the new trust fund, which invests its assets primarily in private stocks and bonds. The Act ordered special treatment of the purchase or sale of non-Federal assets by this trust fund, treating such purchases as a means of financing rather than an outlay. Therefore, the increased need to borrow from the public to finance the purchase of non-Federal assets is part of the "financing other than borrowing from the public" rather than included as an increase in the deficit. This increased borrowing expanded publicly held debt by \$20 billion in 2003. Net purchases have been relatively small since 2003 and are estimated to remain relatively small in future years.⁶

Net financing disbursements of the direct loan and guaranteed loan financing accounts.—Under the Federal Credit Reform Act of 1990, budget outlays for direct loans and loan guarantees consist of the estimated subsidy 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—the disbursement and repayment of loans, the default payments on loan guarantees, the collections of interest and fees, and so forth—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.⁷

The financing accounts also include several types of intragovernmental transactions. In particular, they receive payment from the credit program accounts for the costs of new direct loans and loan guarantees; they also receive payment for any upward reestimate of the costs of direct loans and loan guarantees outstanding. These collections are offset against the gross disbursements of the financing accounts in determining the accounts' total net cash flows. The total net cash flows of the financing accounts, consisting of transactions with both the public and the budgetary accounts, are called "net financing disbursements." They are defined in the same way as the "outlays" of a budgetary account and therefore affect the requirement for borrowing from the public in the same way as the deficit.

The result is that the intragovernmental transactions of the financing accounts do not affect Federal borrowing from the public. Although the deficit changes because of the budget's outlay to, or receipt from, a financing account, the net financing disbursement changes in an equal amount with the opposite sign, so the effects cancel out. 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. Likewise, financing account re-

⁶The budget treatment of this fund is further discussed in Chapter 26 of this volume, "The Budget System and Concepts."

⁷The Federal Credit Reform Act of 1990 (sec. 505(b)) requires that the financing accounts be non-budgetary. As explained in Chapter 23 of this volume, "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 26 of this volume, "The Budget System and Concepts," and the other references cited in Chapter 23 of this volume.

ceipts from the public can be used to finance the payment of the Government's obligations, and therefore they reduce the requirement for Federal borrowing from the public in the same way as an increase in budget receipts.

The impact of the financing accounts became large in the mid-1990s. In 2005 and 2006, large upward reestimates were made in the cost of outstanding direct and guaranteed loans. The credit program accounts in the budget made large outlays to the financing accounts, which in turn had equal offsetting collections and therefore large negative net financing disbursements. The result is shown as a positive amount in Table 16-2, canceling out the effect of a higher budget deficit on the Government's borrowing requirement. In 2007, net downward reestimates are expected and financing accounts will make positive net financing disbursements of the downward reestimates to receipt accounts. After 2007, the pattern is expected to be more normal. The financing accounts are estimated to increase the need for borrowing by \$17 billion in 2007 and from \$22 billion to \$25 billion in each of the following five years. A major part of this financing is normally due to the direct student loan program. 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.

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 93 percent of the total Federal debt held by Government accounts at the end of 2006. In 2006, the total trust fund surplus was \$289 billion, and trust funds invested \$278 billion in Federal securities. Investment may differ somewhat from the surplus due to changes in the amount of cash assets not currently invested. The remainder of debt issued to Government accounts is owned by a number of special funds and revolving funds. The debt held in major accounts and the annual investments are shown in Table 16-4.

Agency Debt

Some Federal agencies, shown in Table 16-3, sell or have sold debt securities to the public and, at times, to other Government accounts. At one time, several other agencies issued debt securities, but this activity has declined significantly over time. Currently, new debt is issued only by the Tennessee Valley Authority (TVA) and the Federal Housing Administration (FHA); the remaining agencies are repaying existing borrowing. During 2006, agencies repaid \$0.4 billion of debt held by the public, resulting in total agency debt of \$25.8 billion as of the end of the year. Agency debt is less than one percent of Federal debt held by the public. Agencies are estimated to repay small amounts of debt in 2007 and 2008.

Table 16-3. AGENCY DEBT

(In millions of dollars)

	Borrowing or repayment (-) of debt			Debt end of 2008 estimate
	2006 actual	2007 estimate	2008 estimate	
Borrowing from the public:				
Housing and Urban Development:				
Federal Housing Administration	-34	*	.....	112
Small Business Administration:				
Participation certificates: Section 505 development company .....	.....	-7	.....	.....
Architect of the Capitol	-3	-4	-4	148
National Archives	-9	-10	-11	204
Tennessee Valley Authority:				
Bonds and notes	-205	-11	-388	22,493
Lease/leaseback obligations	-34	-37	-43	1,029
Prepayment obligations	-106	-105	-106	1,033
Total, borrowing from the public	-391	-174	-552	25,019
Borrowing from other funds:				
Tennessee Valley Authority	6	.....	.....	7
Total, borrowing from other funds	6	.....	.....	7
Total, agency borrowing	-385	-174	-552	25,026

* \$500,000 or less.

The predominant agency borrower is the Tennessee Valley Authority, which had borrowed \$25 billion from the public as of the end of 2006, or 98 percent of the total debt of all agencies. TVA sells debt primarily to finance capital expenditures.

The TVA has traditionally financed its capital construction by selling bonds and notes to the public. Since 2000, it has also employed two types of alternative financing methods, lease/leaseback obligations and prepayment obligations. The Office of Management and Budget determined that each of these methods is a means of financing the acquisition of assets owned and used by the Government, or of refinancing debt previously incurred to finance such assets. They are equivalent in concept to other forms of borrowing from the public, although at different terms and conditions. The budget therefore records the upfront cash proceeds from these methods as borrowing from the public, not offsetting collections. The obligations under these methods are reported as liabilities on TVA's balance sheet under generally accepted accounting principles. Table 16-3 presents these alternative financing methods separately from TVA bonds and notes to distinguish between the types of borrowing.

The first type of alternative financing method is lease/leasebacks. TVA signed contracts to lease some recently constructed power generators to private investors and simultaneously lease them back. It received a lump sum for leasing out its assets, and then leased them back at fixed annual payments for a set number of years. TVA retains substantially all of the economic benefits and risks related to ownership of the assets. The arrangement is at least as governmental as a "lease-purchase without substantial private risk."⁸ The same budget treatment was applied to the lease/leaseback of qualified technological equipment in 2003. The obligations for lease/leasebacks were \$1.1 billion at the end of 2006 and are estimated to decline steadily in the following years as they are amortized.

The second type of alternative financing method is prepayments for power that TVA sells to its power distributors. Under the Discounted Energy Units program, which began in 2003, distributors may prepay a portion of the price of the power they plan to purchase in the future. In return, they obtain a discount on a specific quantity of the future power they buy from TVA. The quantity varies, depending on TVA's estimated cost of borrowing. Most of the prepayments have been relatively small. However, TVA entered into a 15-year, \$1.5 billion contract with Memphis Light, Gas, and Water (MLGW) in 2004. The prepayment obligations

were \$1.2 billion at the end of 2006 and are estimated to continue to decline as TVA provides electric power under the contracts.

The Federal Housing Administration 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 selling securities to the public and then paying the bills by disbursing the cash borrowed, so the transaction is recorded as being simultaneously an outlay and borrowing. The debentures are therefore classified as agency debt.

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 subsequently exercised full control over the design, construction, and operation of the buildings. These arrangements are equivalent to direct Federal construction financed by Federal borrowing. The construction expenditures and interest were therefore classified as Federal outlays, and the borrowing was classified as Federal agency borrowing from the public.

The amount of agency securities sold to the public has been reduced over time 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.

Debt Held by Government Accounts

Trust funds, and some special funds and public enterprise revolving funds, accumulate cash in excess of current needs in order to meet future obligations. These cash surpluses are generally invested in Treasury debt.

Investment by trust funds and other Government accounts has risen greatly for many years. It was \$309 billion in 2006, and is estimated to be \$302 billion in 2007 and \$306 billion in 2008, as shown in Table 16-4. The holdings of Federal securities by Government accounts are estimated to grow to \$4,230 billion by the end of 2008, or 44 percent of the gross Federal debt. The percentage is estimated to rise in the following years, as the trust funds and several major revolving funds and special funds continue to accumulate surpluses while borrowing from the public begins to fall.

⁸ For further detail on the current budgetary treatment of lease-purchase without substantial private risk, see OMB Circular No. A-11, Appendix B. Also see the section on outlays in Chapter 26 of this volume, "The Budget System and Concepts."

Table 16-4. DEBT HELD BY GOVERNMENT ACCOUNTS ¹

(In millions of dollars)

Description	Investment or Disinvestment (-)			Holdings end of 2008 estimate
	2006 actual	2007 estimate	2008 estimate	
Investment in Treasury debt:				
Energy:				
Nuclear waste disposal fund ¹	1,044	57	874	19,653
Uranium enrichment decontamination fund	337	321	112	4,661
Health and Human Services:				
Federal hospital insurance trust fund	24,919	11,858	3,341	317,385
Federal supplementary medical insurance trust fund	15,857	8,794	6,325	48,180
Vaccine injury compensation fund	214	-77	-87	2,216
Homeland Security: Aquatic resources trust fund	100	15	-363	1,301
Housing and Urban Development:				
Federal Housing Administration mutual mortgage fund	-612	-597	217	21,650
Guarantees of mortgage-backed securities	436	336	349	9,070
Interior:				
Bureau of Land Management permanent operating funds	622	70	54	2,465
Environmental improvement and restoration fund	39	51	51	1,153
Abandoned mine reclamation fund	131	112	112	2,490
Labor:				
Unemployment trust fund	11,407	12,787	12,000	91,000
Pension Benefit Guaranty Corporation ¹	2,618	-8,985	-456	5,546
State: Foreign service retirement and disability trust fund	516	-477	134	13,533
Transportation:				
Highway trust fund	2,727	2,210	-1,628	11,580
Airport and airway trust fund	-2,154	-667	-158	7,068
Treasury: Exchange stabilization fund	473	346	353	16,410
Veterans Affairs:				
National service life insurance trust fund	-409	-478	-531	9,180
Veterans special life insurance fund	32	12	-17	1,955
Corps of Engineers: Harbor maintenance trust fund	542	421	520	4,105
Other Defense-Civil:				
Medicare-eligible retiree health care fund	19,867	23,471	24,076	120,287
Military retirement trust fund	4,528	27,072	7,582	216,464
Education benefits fund	216	141	148	1,530
Environmental Protection Agency:				
Hazardous substance trust fund	315	-9	.....	2,631
Leaking underground storage tank trust fund	229	230	230	3,126
International Assistance Programs:				
Overseas Private Investment Corporation	244	95	140	4,508
Office of Personnel Management:				
Civil service retirement and disability trust fund	29,186	9,296	30,148	729,380
Employees life insurance fund	1,797	1,400	1,669	34,351
Employees health benefits fund	2,292	1,553	709	17,087
Postal Service retiree health benefits fund .....	.....	31,358	6,883	38,241
Social Security Administration:				
Federal old-age and survivors insurance trust fund ²	176,971	180,187	203,556	2,176,872
Federal disability insurance trust fund ²	8,915	4,156	5,698	212,032
District of Columbia: Federal pension fund	-20	-5	12	3,616
Farm Credit System Insurance Corporation:				
Farm Credit System Insurance fund	150	270	213	2,571
Federal Communications Commission: Universal service fund	605	-*	.....	4,762
Federal Deposit Insurance Corporation:				
Federal deposit insurance fund	1,158	1,542	2,579	50,337
FSLIC resolution fund	-94	246	294	3,569
National Credit Union Administration: Share insurance fund	326	251	376	7,376
Postal Service fund ²	3,015	-3,088	.....	1,145
Railroad Retirement Board trust funds	-109	161	79	2,131
Other Federal funds	1,139	-2,191	-9	5,095
Other trust funds	32	-139	-13	4,302
Unrealized discount ¹	-317	.....	.....	-1,962
Total, investment in Treasury debt ¹	309,285	302,108	305,572	4,230,051

Table 16-4. DEBT HELD BY GOVERNMENT ACCOUNTS¹—Continued
(In millions of dollars)

Description	Investment or Disinvestment (-)			Holdings end of 2008 estimate
	2006 actual	2007 estimate	2008 estimate	
Investment in agency debt:				
Railroad Retirement Board:				
National Railroad Retirement Investment Trust	6	.....	.....	7
Total, investment in agency debt¹	6	.....	.....	7
Total, investment in Federal debt¹	309,291	302,108	305,572	4,230,058
MEMORANDUM				
Investment by Federal funds (on-budget)	28,463	46,748	36,230	323,460
Investment by Federal funds (off-budget)	3,015	-3,088	.....	1,145
Investment by trust funds (on-budget)	92,245	74,105	60,088	1,518,512
Investment by trust funds (off-budget)	185,886	184,343	209,254	2,388,904
Unrealized discount ¹	-317	.....	.....	-1,962

* \$500 thousand or less.

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 Pension Benefit Guaranty Corporation (PBGC), 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, at the end of 2006 the debt figures would be \$17.8 billion higher for the Nuclear Waste Disposal fund and \$21.6 billion higher for PBGC than recorded in this table.

² Off-budget Federal entity.

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 \$579 billion during 2006–08, which is 63 percent of the total estimated investment by Government accounts. The funds for Federal employee retirement also invest a large share of the total. The principal trust fund for Federal civilian employees is the Civil Service Retirement and Disability Fund (CSRDF). In 2007, funds are being transferred from the CSRDF, the Postal Service, and other sources to create a new special fund for Postal Service retiree health benefits. Together the CSRDF and the new Postal Service retiree health benefit fund account for 12 percent of the total investment by Government accounts during 2006–08. The military retirement trust fund and the special fund for uniformed services Medicare-eligible retiree health care account for another 12 percent. The two Medicare trust funds—Hospital Insurance and Supplementary Medical Insurance—account for another 8 percent. Altogether, the investment by Social Security, Medicare, and these four Federal employee retirement funds is almost as much as the total investment by Government accounts during this period. At the end of 2008, they are estimated to own 94 percent of the total debt held by Government accounts. Many of the other Government accounts also increase their holdings of Federal securities during this period.

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 re-

corded at par in the OMB and Treasury reports on Federal debt. However, there are two kinds of exceptions.

First, Treasury issues 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 16-4 at par value less unamortized discount. The only two Government accounts that held zero-coupon bonds during the period of this table are the Nuclear Waste Disposal fund in the Department of Energy and the Pension Benefit Guaranty Corporation (PBGC). The total unamortized discount on zero-coupon bonds was \$39.4 billion at the end of 2006.

Second, Treasury subtracts 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 and debt held by the public, the unrealized discount is the discount at the time of issue and is not amortized over the term of the security. In Table 16-4 it is shown as a separate item at the end of the table and not distributed by account. The amount was \$2.0 billion at the end of 2006.

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 third part of Table 16–2 compares total Treasury debt with the amount of Federal debt that is subject to the limit. Nearly all Treasury debt is subject to the debt limit. Most of the Treasury debt not subject to the general statutory limit was issued by the Federal Financing Bank (FFB). The FFB, which is within the Treasury Department, is authorized to have outstanding up to \$15 billion of publicly issued debt. It issued \$14 billion of securities to the Civil Service Retirement and Disability Fund on November 15, 2004, in exchange for an equal amount of regular Treasury securities, as explained below in the section on changes in the debt limit. The FFB securities have the same interest rates and maturities as the regular Treasury securities for which they were exchanged. The securities mature on dates from June 30, 2009, through June 30, 2019. The other Treasury debt not subject to the general limit consists almost entirely of silver certificates and other currencies no longer being issued. It was \$506 million at the end of 2006 and gradually declines over time.

The sole agency debt currently subject to the general limit, \$96 million at the end of 2006, is certain debentures issued by the Federal Housing Administration.⁹ 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 bonds and notes 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 earlier 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. The amount is relatively small: \$9.1 billion at the end of 2006 compared to the total unamortized discount (less premium) of \$81.4 billion on all Treasury securities.

Changes in the debt limit.—The statutory debt limit has been changed many times. Since 1960, Congress has passed 72 separate acts to raise the limit, extend the duration of a temporary increase, or revise the definition.¹⁰

During the 1990s, the debt limit was increased three times by amounts large enough to last for two years

or more. All three of these increases were enacted as part of a deficit reduction package or a plan to balance the budget and were intended to last a relatively long time: the Omnibus Budget Reconciliation Act of 1990; the Omnibus Budget Reconciliation Act of 1993; and the Balanced Budget Act of 1997. The 1997 increase lasted until 2002.

Since 2002, the debt has reached the limit four times. In each instance, the limit has been increased by an amount sufficient to last less than two years. The debt limit was increased to \$6,400 billion on June 28, 2002, to \$7,384 billion on May 27, 2003, to \$8,184 billion on November 19, 2004, and to \$8,965 billion on March 20, 2006. Each time, in the weeks prior to the increase, the Treasury Department has taken a variety of administrative actions to meet the Government's obligation to pay its bills and invest its trust funds while keeping debt under the existing limit.

In the months leading to the most recent increase, the Secretary of Treasury wrote Congress in December 2005 that the debt subject to limit would reach the ceiling in February 2006. It did reach the limit on February 16 and stayed there until the limit was increased.

On February 16, the Secretary of Treasury declared that he would not be able to fully invest the Government Securities Investment Fund (G-fund) as of that day. This fund is one component of the Thrift Savings Plan, a defined contribution pension plan for Federal employees. The Secretary has statutory authority to suspend investment of the G-fund in Treasury securities as needed to prevent the debt from exceeding the debt limit. When he does this, he is required to make the fund whole after the debt limit has been raised by restoring the forgone interest and investing the fund fully. Treasury determined each day the amount of investments that would allow the fund to be invested as fully as possible without exceeding the debt limit. That amount was invested, and no more. The balances not invested varied throughout the period. In addition, Treasury discontinued the acceptance of subscriptions to the State and local government series of securities.

As the need for financing grew, Treasury took further steps, as authorized by law. The Exchange Stabilization fund was disinvested. The Secretary also declared a debt issuance suspension period from March 6 to May 26. This allowed him to redeem a limited amount of securities held by the Civil Service Retirement and Disability Fund and stop investing its receipts.

These Treasury actions were used for a little more than one month. Congress passed a bill raising the debt limit to \$8,965 billion on March 16, and the President signed the bill on March 20. Treasury promptly invested the G-fund and Civil Service Retirement and Disability Fund fully and restored the forgone interest as prescribed by law. Treasury also fully invested the Exchange Stabilization fund and reinstated acceptance of subscriptions to the State and local government series.

All the steps taken during February or March had also been taken on previous occasions when the debt

⁹ At the end of 2006, \$16 million of FHA debentures was not subject to limit.

¹⁰ The Acts and the statutory limits since 1940 are listed in *Historical Tables, Budget of the United States Government, Fiscal Year 2008, Table 7.3.*

had reached the statutory limit, including in 2002, 2003, or 2004. In addition, Treasury has previously replaced regular Treasury securities with borrowing by the Federal Financing Bank, which, as explained above, is not subject to the debt limit. On November 15, 2004, prior to the November 19 debt limit increase, the Federal Financing Bank issued \$14 billion of FFB securities to the Civil Service Retirement and Disability Fund in exchange for an equal amount of regular Treasury securities. FFB then exchanged those regular Treasury securities with Treasury at market value in return for the extinguishment of an equal market value of FFB debt owed to Treasury. As indicated above, the FFB securities issued to CSRDF begin to mature in June 2009. When the debt limit was reached in 2002 and 2003, Treasury also reduced its compensating balances—deposits held in banks to pay for services under financial agency agreements. However, compensating balances were discontinued in 2004.

Methods of changing the debt limit.—The statutory limit is usually changed by normal legislative procedures. Under the rules adopted by the House of Representatives, it can also be changed as a consequence of the annual Congressional budget resolution, which is not itself a law. The budget resolution includes a provision specifying the appropriate level of the debt subject to limit at the end of each fiscal year. The rule provides that, when the budget resolution is adopted by both Houses of the Congress, the vote in the House of Representatives is deemed to have been a vote in favor of a Joint Resolution setting the statutory limit at the level specified in the budget resolution. The Joint Resolution is transmitted to the Senate for further action, where it may be amended to change the debt limit provision or in any other way. If it passes both Houses of the Congress, it is sent to the President for his signature. The House of Representatives first adopted this rule for 1980, although it was not included in the rules for several years before 2003.

Federal funds financing and the change in debt subject to limit.—The change in debt held by the public, as shown in Table 16–2, is determined primarily by the total Government deficit or surplus. The debt 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. The effect of debt held by Government accounts on the total debt subject to limit is brought out sharply in the second part of Table 16–2. The change in debt held by Government accounts is a large proportion of the change in total debt subject to limit each year and accounts for over two-thirds of the estimated total increase from 2007 through 2012.

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 receipts earmarked by law for specified purposes, such as paying Social Security benefits or making grants to State governments for highway construction.¹¹

A Federal funds deficit must generally be financed by borrowing, which can be done 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 Treasury securities that are subject to the statutory debt limit. Very little debt subject to statutory limit has been issued for reasons except to finance the Federal funds deficit. 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 deficit or surplus and the trust fund surplus. Trust fund surpluses are almost entirely invested in securities subject to the debt limit, and trust funds hold most of the debt held by Government accounts. The trust fund surplus reduces the total budget deficit or increases the total budget surplus, decreasing the need to borrow from the public or increasing the ability to repay borrowing from the public. When the trust fund surplus is invested in Federal securities, the debt held by Government accounts increases, offsetting the decrease in debt held by the public by an equal amount. Thus, there is no net effect on gross Federal debt.

Table 16–5 derives the change in debt subject to limit. In 2006 the Federal funds deficit was \$537 billion, and other factors reduced financing requirements by \$13 billion. The net financing disbursements of the guaranteed loan financing accounts reduced the financing requirements by \$16 billion, as explained in an earlier section. As an offset, special funds and revolving funds, which are part of the Federal funds group, invested \$31 billion in Treasury securities. The largest single investment was \$20 billion for the uniformed services Medicare-eligible retiree health care fund. In addition, an adjustment is made for the relatively minor difference between the trust fund surplus and the trust funds' investment in Federal securities (including the changes in the National Railroad Retirement Investment Trust's investments in non-Federal securities). As a net result of all these factors, \$546 billion in financing was required. Therefore, gross Federal debt increased by \$546 billion. Since Federal debt not subject to limit decreased by \$0.4 billion and the adjustment for discount and premium changed by \$2.8 billion, the debt subject to limit increased by \$549 billion, while debt held by the public increased by \$237 billion.

¹¹ For further discussion of the trust funds and Federal funds groups, see Chapter 22 of this volume, "Trust Funds and Federal Funds."

The debt subject to limit is estimated to increase to \$8,977 billion by the end of 2007, which exceeds the present statutory debt limit of \$8,965 billion. (This estimate does not reflect any administrative actions that Treasury might take to meet the Government's obligations while staying within the statutory limit.)

The estimated increases in the debt subject to limit are caused by the continued Federal funds deficit, supplemented by the other factors shown in Table 16–5. While debt held by the public increases by \$882 billion from the end of 2006 through 2012, debt subject to limit increases by \$3,046 billion.

Table 16–5. FEDERAL FUNDS FINANCING AND CHANGE IN DEBT SUBJECT TO STATUTORY LIMIT

(In billions of dollars)

Description	Actual 2006	Estimate					
		2007	2008	2009	2010	2011	2012
Change in Gross Federal Debt:							
Federal funds deficit (–)	–537.3	–489.7	–533.3	–498.2	–428.9	–403.1	–296.7
Means of financing other than borrowing—Federal funds ¹	13.2	–9.3	–22.8	–21.0	–23.4	–24.0	–24.1
Decrease or increase (–) in Federal debt held by Federal funds	–31.5	–43.7	–36.2	–43.6	–47.2	–50.8	–52.0
Adjustments for trust fund surplus not invested in Federal securities ²	9.2	–13.7	24.6	*	0.2	0.6	0.3
Less: change in unrealized discount on Federal debt held by Federal funds	–0.3	.....	.....	.....	.....	.....	.....
Total financing requirements	–546.1	–556.4	–567.7	–562.8	–499.3	–477.2	–372.5
Change in Debt Subject to Limit:							
Change in gross Federal debt	546.1	556.4	567.7	562.8	499.3	477.2	372.5
Less: increase or decrease (–) in Federal debt not subject to limit	–0.4	–0.2	–0.6	–2.6	–2.4	–2.5	–2.1
Less: change in adjustment for discount and premium ³	–2.8	.....	.....	.....	.....	.....	.....
Total, change in debt subject to limit	549.2	556.6	568.3	565.5	501.7	479.7	374.6
ADDENDUM							
Debt subject to statutory limit ⁴	8,420.3	8,976.9	9,545.2	10,110.6	10,612.3	11,092.0	11,466.6

* \$50 million or less.

¹ Includes Federal fund transactions that correspond to those presented in Table 16–2, but that are for Federal funds alone with respect to the public and trust funds.

² Includes trust fund holdings in other cash assets and changes in the investments of the National Railroad Retirement Investment Trust in non-Federal securities.

³ Consists of unamortized discount (less premium) on public issues of Treasury notes and bonds (other than zero-coupon bonds).

⁴ The statutory debt limit is \$8,965 billion.

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, foreign holdings were just over \$10 billion, less than 5 percent of the total Federal debt held by the public. Foreign holdings began to grow significantly starting in 1970. This increase has been almost entirely due to decisions by foreign central banks, corporations, and individuals, rather than the direct marketing of these securities to foreign residents.

Foreign holdings of Federal debt are presented in Table 16–6. At the end of 2006, foreign holdings of Treasury debt were \$2,134 billion, which was 44 percent of the total debt held by the public.¹² Foreign central banks owned 66 percent of the Federal debt held by foreign residents; private investors owned nearly all the rest. The percentage held by foreign central banks is up from 63 percent at the end of 2005. All the Federal debt held by foreign residents is denominated in dollars.

¹² The debt calculated by the Bureau of Economic Analysis, Department of Commerce, is different, though similar in size, because of a different method of valuing the securities.

Although the amount of Federal debt held by foreign residents has grown greatly over this period, the proportion that foreign residents own, after increasing abruptly in the very early 1970s, remained about 15–20 percent 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 public.¹³ As a result, the Federal debt held by individuals and institutions within the United States decreased in absolute amount during those years, despite further Federal borrowing, 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. In the next few years the change in foreign debt holdings was much smaller. However, large increases in the Federal debt held by foreign residents resumed beginning in 2003. Federal debt held by foreign residents increased by \$203 billion in 2006, and by an average of \$233 billion annually over the last four years. The percentage of Federal debt held

¹³ Table 16–6 does not show the increase in foreign holdings in 1995 because of a benchmark revision. As explained in footnote 3 to that table, a benchmark revision reduced the estimated holdings as of December 1994 (by \$47.9 billion). Because estimates of foreign holdings were not revised retroactively, the increase in 1995 was more than the difference between the beginning and end of year amounts as now calculated. Before the benchmark revision, the increase was estimated to be \$192.6 billion.

by foreign residents increased from 34 percent to 44 percent during these four years. The increase in foreign holdings was about 86 percent of total Federal borrowing in 2006 and about 72 percent of total Federal borrowing over the last four years.

Foreign holdings of Federal debt are around 15–20 percent of the foreign-owned assets in the United States, depending on the method of measuring total assets. 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.

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; it permits mortgage interest to be deducted in calculating taxable income; 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 7 of this volume, “Credit and Insurance.” Detailed data are presented in tables at the end of that chapter.

Table 16–6. FOREIGN HOLDINGS OF FEDERAL DEBT

(Dollar amounts in billions)

Fiscal Year	Debt held by the public			Borrowing from the public	
	Total	Foreign ¹	Percentage foreign	Total ²	Foreign ¹
1965	260.8	12.3	4.7	3.9	0.3
1970	283.2	14.0	5.0	5.1	3.8
1975	394.7	66.0	16.7	51.0	9.2
1980	711.9	121.7	17.1	71.6	1.4
1985 ³	1,507.3	222.9	14.8	200.3	N/A
1990 ³	2,411.6	440.3	18.3	220.8	N/A
1991	2,689.0	477.3	17.7	277.4	37.0
1992	2,999.7	535.2	17.8	310.7	57.9
1993	3,248.4	591.3	18.2	248.7	56.1
1994	3,433.1	655.8	19.1	184.7	64.5
1995 ³	3,604.4	800.4	22.2	171.3	N/A
1996	3,734.1	978.1	26.2	129.7	177.7
1997	3,772.3	1,218.2	32.3	38.3	240.0
1998	3,721.1	1,216.9	32.7	-51.2	-1.2
1999 ³	3,632.4	1,281.4	35.3	-88.7	N/A
2000 ³	3,409.8	1,057.9	31.0	-222.6	N/A
2001	3,319.6	1,005.5	30.3	-90.2	-52.3
2002 ³	3,540.4	1,200.8	33.9	220.8	N/A
2003	3,913.4	1,454.2	37.2	373.0	253.4
2004	4,295.5	1,798.7	41.9	382.1	344.5
2005	4,592.2	1,930.6	42.0	296.7	131.9
2006	4,829.0	2,133.6	44.2	236.8	202.9

N/A = Not available.

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 Benchmark revisions increased the estimated foreign holdings as of December 1984 and December 1989; reduced the estimated holdings as of December 1994 and March 2000; and increased the estimated holdings as of June 2002. A conceptual revision increased the estimated foreign holdings as of 1999. The change in debt that is recorded as held by foreign residents in these fiscal years reflects the benchmark or conceptual revisions as well as the net purchases of Federal securities. Borrowing is therefore not shown in these years.

16. FEDERAL BORROWING AND DEBT

Debt is the largest legally binding obligation of the Federal Government. At the end of 2007, the Government owed \$5,035 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 \$252 billion of interest on this debt.

Table 16-1. TRENDS IN FEDERAL DEBT HELD BY THE PUBLIC

(Dollar amounts in billions)

Fiscal Year	Debt held by the public:		Debt held by the public as a percent of:		Interest on the debt held by the public as a percent of: ³	
	Current Dollars	FY 2000 dollars ¹	GDP	Credit market debt ²	Total outlays	GDP
1946	241.9	1,821.3	108.6	N/A	7.4	1.8
1950	219.0	1,339.9	80.2	53.3	11.4	1.8
1955	226.6	1,217.3	57.4	43.2	7.6	1.3
1960	236.8	1,128.0	45.7	33.7	8.5	1.5
1965	260.8	1,161.4	38.0	26.9	8.1	1.4
1970	283.2	1,047.8	28.0	20.8	7.9	1.5
1975	394.7	1,074.6	25.3	18.4	7.5	1.6
1980	711.9	1,340.7	26.1	18.5	10.6	2.3
1985	1,507.3	2,164.6	36.4	22.3	16.2	3.7
1990	2,411.6	2,968.1	42.0	22.6	16.1	3.5
1991	2,689.0	3,190.0	45.3	24.1	16.2	3.6
1992	2,999.7	3,471.2	48.1	25.7	15.5	3.4
1993	3,248.4	3,675.4	49.4	26.6	14.9	3.2
1994	3,433.1	3,802.6	49.3	26.9	14.4	3.0
1995	3,604.4	3,910.1	49.2	26.7	15.8	3.3
1996	3,734.1	3,974.6	48.5	26.4	15.8	3.2
1997	3,772.3	3,946.3	46.1	25.4	15.7	3.1
1998	3,721.1	3,846.1	43.1	23.5	15.1	2.9
1999	3,632.4	3,705.9	39.8	21.5	13.8	2.6
2000	3,409.8	3,409.8	35.1	19.2	13.0	2.4
2001	3,319.6	3,243.1	33.0	17.6	11.6	2.1
2002	3,540.4	3,393.9	34.1	17.6	8.9	1.7
2003	3,913.4	3,677.1	36.2	17.9	7.5	1.5
2004	4,295.5	3,933.7	37.4	18.1	7.3	1.5
2005	4,592.2	4,074.8	37.5	17.7	7.7	1.6
2006	4,829.0	4,147.6	37.1	17.1	8.9	1.8
2007	5,035.1	4,211.7	36.8	N/A	9.2	1.8
2008 estimate	5,428.6	4,454.7	37.9	N/A	8.9	1.8
2009 estimate	5,856.2	4,710.6	39.0	N/A	9.0	1.9
2010 estimate	6,031.1	4,756.3	38.2	N/A	9.7	1.9
2011 estimate	6,139.7	4,747.1	37.0	N/A	10.0	1.9
2012 estimate	6,109.5	4,631.2	35.1	N/A	10.1	1.9
2013 estimate	6,097.4	4,531.6	33.4	N/A	9.7	1.8

N/A=Not available.

¹Debt in current dollars deflated by the GDP chain-type price index with Fiscal Year 2000 equal to 100.

²Total credit market debt owed by domestic nonfinancial sectors, modified in some 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.

³Interest on debt held by the public is estimated as the interest on Treasury debt securities less the "interest received by trust funds" (subfunction 901 less subfunctions 902 and 903). 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 deficit was \$162 billion in 2007, down from \$248 billion in 2006. This \$162 billion deficit and other financing transactions totaling \$44 billion required the Government to increase its borrowing from the public by \$206 billion last year. Debt held by the public fell

from 37.1 percent of Gross Domestic Product (GDP) at the end of 2006 to 36.8 percent of GDP at the end of 2007. The deficit is estimated to increase in 2008 and then to begin to fall again, reaching surplus in 2012. Debt as a percentage of GDP is estimated to

increase in 2008 and 2009 and then resume decline, reaching 33.4 percent of GDP in 2013.

Trends in Debt Since World War II

Table 16-1 depicts trends in Federal debt held by the public from World War II to the present and estimates from the present through 2013. (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.) Federal debt peaked at 108.6 percent of GDP in 1946, just after the end of the war. From then until the 1970s, 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 80.2 percent of GDP to 25.3 percent, and from 53.3 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 spending surged and as the economy was disrupted by oil shocks and rising 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 at the beginning of the 1980s, due in large part to a deep recession, and the ratio of Federal debt to GDP grew sharply. The ratio of Federal debt to credit market debt also rose, though to a 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 declined markedly relative to both GDP and total credit market debt. The decline accelerated as surpluses emerged from 1997 to 2001. Debt fell steadily from 49.4 percent of GDP in 1993 to 33.0 percent in 2001; and it fell more unevenly from 26.9 percent of total credit market debt in 1994 to 17.6 percent in 2001 and 2002. Interest on this debt, relative to total outlays and GDP, declined as well. Interest as a share of outlays peaked at 16.5 percent in 1989 and then fell to 8.9 percent by 2002; interest as a percentage of GDP fell in a similar proportion.

The downward trend in debt relative to GDP ceased in 2002 as economic conditions changed and the Nation responded to the September 11 terrorist attacks. The decline in the stock market, the recession, and the initially slow recovery all reduced tax receipts; tax relief had the same effect; and spending increased due to the Global War on Terror. Consequently, deficits ensued and debt began to rise, both in nominal terms and as a percentage of GDP. However, a growing economy

led to a revival of receipts and deficits have fallen in each of the past three years. Deficits are expected to increase in 2008, after which the budget is expected to return to falling deficits and to reach surplus in 2012. In nominal dollars, debt is estimated to continue to rise through 2011 and then begin to fall in 2012 when the Government achieves surplus. Debt as a percent of GDP fell in 2006 and 2007 and, after temporary increases in 2008 and 2009, is expected to fall by over three percentage points from the current level by the end of 2013.

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.¹ Second, it issues debt to Government accounts, primarily trust funds, that accumulate surpluses. (As used in this Budget, debt held by Government accounts refers to debt held by Federal Government accounts; investments by State and local governments in Federal securities are included as debt held by the public.) 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."²

Borrowing from the public, whether by the Treasury or by some other Federal agency, is normally a good approximation of the Federal demand on credit markets. Regardless of whether the proceeds are used for tangible or intangible investment or to finance current consumption, 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 credit market sectors for financial resources in the credit market. Borrowing from the public thus affects the size and composition of assets held by the private sector, and the amount of saving imported from abroad. It also increases the amount of future resources required to pay interest to the public on Federal debt. Borrowing from the public is therefore an important concern of Federal fiscal policy.³

¹Treasury debt held by the public is measured as the sales price plus the amortized discount (or less the amortized premium). At the time of sale, the book value equals the sales price. Subsequently, it equals the sales price plus the amount of the discount that has been amortized up to that time. In equivalent terms, the book value of the debt equals the principal amount due at maturity (par or face value) less the unamortized discount. (For a security sold at a premium, the definition is symmetrical.) For inflation-indexed notes and bonds, the book value includes a periodic adjustment for inflation. Agency debt is generally recorded at par.

²The 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 16-3, but also the debt of the Government-sponsored enterprises listed in Table 7-9 at the end of Chapter 7 of this volume and certain Government-guaranteed securities.

³The Federal subsector of the national income and product accounts provides a measure of "net government saving" (based on current expenditures and current receipts) 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 subsector and its differences from the budget are discussed in Chapter 14 of this volume, "National Income and Product Accounts."

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 that is credited to these funds accounts for the fact that some earmarked taxes and user fees will be spent at a later time than when the funds receive the monies. The debt securities are a liability of the general fund to the fund that holds the securities and are a mechanism for crediting interest to that fund on its recorded balances. These accounting balances generally provide the fund with authority to draw upon the U.S. Treasury in later years to make future payments on its behalf to the public. Public policy may 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 credit market 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 is not financed by private saving and does not 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, which itself obtains real resources by taxation and borrowing; and its current interest does not have to be financed by other resources.

Furthermore, the debt held by Government accounts does not represent the estimated amount of the account's obligations or responsibilities to make future payments to 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 estimated future benefits (or future benefits less taxes) for the current participants in the program; nor does it represent the actuarial present value of estimated future benefits (or future benefits less taxes) for the current participants plus the estimated future participants over some stated time period. The future transactions of Federal social insurance and employee retirement programs, which own 91 percent of the debt held by Government accounts, are important in their own right and need to be analyzed separately. This can be done through information published in the actuarial and financial reports for these programs.⁴

This Budget uses a variety of information sources to analyze the condition of Social Security and Medicare, the Government's two largest social insurance programs. Chapter 13 of the present volume, "Stewardship," projects Social Security and Medicare outlays to the year 2080 relative to GDP. It also discusses in

some detail the actuarial projections prepared for the Social Security and Medicare trustees reports to evaluate the long-run actuarial deficiency or shortfall in these programs. A chapter in the main volume of the Budget, "The Nation's Fiscal Outlook," uses the same data in less detail to explain the long-run fiscal problems of Social Security and Medicare revealed by these projections. The actuarial shortfalls are very different in concept and much larger in size than the amount of Treasury debt that these programs hold.

For all these reasons, debt held by the public is a better gauge of the effect of the budget on the credit markets than gross Federal debt.

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 liabilities are incurred when the Government guarantees the payment of interest and principal on private loans; and liabilities for future pension and retiree health 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 the "Stewardship" Chapter of this volume. The different types of liabilities are reported annually in the financial statements of Federal agencies and in the *Financial Report of the United States Government*, prepared by the Treasury Department.

Government Surpluses or Deficits and the Change in Debt

Table 16–2 summarizes Federal borrowing and debt from 2007 through 2013. In 2007 the Government borrowed \$206 billion, increasing the debt held by the public from \$4,829 billion at the end of 2006 to \$5,035 billion at the end of 2007. The debt held by Government accounts increased \$293 billion, and gross Federal debt increased by \$499 billion to \$8,951 billion.

Debt Held by the Public.—The Federal Government primarily finances deficits by borrowing from the public, and it primarily uses surpluses to repay debt held by the public. Table 16–2 shows the relationship between the Federal deficit or surplus and the change in debt held by the public. The borrowing or debt repayment 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 12 of this volume, "Economic Assumptions."

The total or unified budget surplus consists of two parts: the on-budget surplus or deficit; and the surplus of the off-budget Federal entities, which have been excluded from the budget by law. Under present law,

⁴ 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 major Federal employee retirement funds. The actuarial estimates for these and other programs are summarized in the *Financial Report of the United States Government*, prepared annually by the Treasury Department.

Table 16-2. FEDERAL GOVERNMENT FINANCING AND DEBT

(In billions of dollars)

	Actual 2007	Estimate					
		2008	2009	2010	2011	2012	2013
Financing:							
Unified budget deficit (-)/surplus (+)	-162.0	-410.0	-407.4	-160.0	-94.8	48.1	29.3
Financing other than borrowing from the public:							
Changes in: ¹							
Treasury operating cash balance (-)	-23.1	30.2	.....	.....	.....	.....	.....
Checks outstanding, etc. ²	-1.6	.....	.....	.....	.....	.....	.....
Seigniorage on coins	0.8	0.9	0.8	0.9	0.9	0.9	0.9
Credit net financing disbursements (-):							
Direct loan financing accounts	-8.2	-10.1	-15.7	-14.9	-16.3	-16.8	-17.0
Guaranteed loan financing accounts	-8.6	-2.7	-5.2	-1.1	1.2	-2.1	-1.7
Net purchases of non-Federal securities by the National Railroad Retirement Investment Trust (-)	-3.3	-1.8	-*	0.2	0.5	0.2	0.5
Total, financing other than borrowing from the public	-44.2	16.6	-20.1	-15.0	-13.7	-17.9	-17.3
Total, requirement to borrow from the public	-206.2	-393.5	-427.5	-174.9	-108.6	30.2	12.1
Change in debt held by the public	206.2	393.5	427.5	174.9	108.6	-30.2	-12.1
Changes in Debt Subject to Statutory Limitation:							
Change in debt held by the public	206.2	393.5	427.5	174.9	108.6	-30.2	-12.1
Change in debt held by Government accounts	293.2	310.2	331.4	366.0	393.5	441.8	420.3
Less: change in debt not subject to limit and other adjustments	1.7	*	1.9	1.3	1.7	1.8	1.9
Total, change in debt subject to statutory limitation	501.1	703.7	760.8	542.3	503.7	413.4	410.2
Debt Subject to Statutory Limitation, End of Year:							
Debt issued by Treasury	8,925.6	9,629.3	10,388.0	10,928.7	11,430.6	11,842.7	12,251.4
Less: Treasury debt not subject to limitation (-) ³	-14.5	-14.5	-12.4	-10.7	-8.9	-7.6	-6.2
Agency debt subject to limitation	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Adjustment for discount and premium ⁴	10.2	10.2	10.2	10.2	10.2	10.2	10.2
Total, debt subject to statutory limitation ⁵	8,921.3	9,625.1	10,385.9	10,928.2	11,431.9	11,845.4	12,255.5
Debt Outstanding, End of Year:							
Gross Federal debt: ⁶							
Debt issued by Treasury	8,925.6	9,629.3	10,388.0	10,928.7	11,430.6	11,842.7	12,251.4
Debt issued by other agencies	25.2	25.2	25.4	25.7	25.8	25.4	24.9
Total, gross Federal debt	8,950.7	9,654.4	10,413.4	10,954.4	11,456.5	11,868.1	12,276.4
Held by:							
Debt held by Government accounts	3,915.6	4,225.8	4,557.3	4,923.3	5,316.8	5,758.6	6,179.0
Debt held by the public ⁷	5,035.1	5,428.6	5,856.2	6,031.1	6,139.7	6,109.5	6,097.4

* \$50 million or less.

¹ A decrease in the Treasury operating cash balance (which is an asset) is a means of financing a deficit and therefore has a positive sign. An increase in checks outstanding (which is a liability) is also a means of financing a deficit and therefore also has a positive sign.² Besides checks outstanding, includes accrued interest payable on Treasury debt, uninvested deposit fund balances, allocations of special drawing rights, and other liability accounts; and, as an offset, cash and monetary assets (other than the Treasury operating cash balance), other asset accounts, and profit on sale of gold.³ Consists primarily of Federal Financing Bank debt.⁴ Consists mainly 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.⁵ The statutory debt limit is \$9,815 billion, enacted on September 29, 2007.⁶ Treasury securities held by the public and zero-coupon bonds held by Government accounts are almost all measured at sales price plus amortized discount or less amortized premium. Agency debt securities are almost all measured at face value. Treasury securities in the Government account series are otherwise measured at face value less unrealized discount (if any).⁷ At the end of 2007, the Federal Reserve Banks held \$779.6 billion of Federal securities and the rest of the public held \$4,255.5 billion. Debt held by the Federal Reserve Banks is not estimated for future years.

the off-budget Federal entities are the Social Security trust funds (Old-Age and Survivors Insurance and Disability Insurance) and the Postal Service fund.⁵ The off-budget totals are virtually the same as Social Security, which had a large surplus in 2007 and is estimated

to have large surpluses throughout the projection period. The on-budget and off-budget surpluses or deficits are added together to determine the Government's financing needs.

The Government's need to borrow, or its ability to repay debt held by the public, has always depended on several other factors besides the unified budget sur-

⁵ For further explanation of the off-budget Federal entities, see Chapter 23 of this volume, "Off-Budget Federal Entities and Non-Budgetary Activities."

plus or deficit, such as the change in the Treasury operating cash balance. As shown in Table 16–2, these other factors, which in this table are called “financing other than borrowing from the public,” can either increase or decrease the Government’s need to borrow. (An increase in its need to borrow is represented by a negative sign, like the deficit.) Some of the individual factors themselves may be either positive or negative, and some of them vary considerably in size from year to year. In 2007 the deficit was \$162 billion and these other factors increased the need to borrow by \$44 billion. As a result, the Government borrowed \$206 billion from the public.

Over the long-run, it is a good approximation to say that “the deficit is financed by borrowing from the public” or “the surplus is used to repay debt held by the public.” Over the last 20 years, the cumulative deficit was \$2,957 billion and the increase in debt held by the public was \$3,145 billion. Thus, the other factors added a total of \$188 billion of borrowing, an average of \$9 billion per year.

In individual years it is also often a good approximation to say that the deficit and borrowing (or the surplus and debt repayment) are about the same. The variation, however, can be wide, ranging over the last 20 years from additional borrowing (or lower repayment) of \$63 billion in 2002 to reduced borrowing of \$30 billion in 2004. The other factors are estimated to reduce borrowing by \$17 billion in 2008 and increase borrowing in 2009 through 2013 by amounts ranging from \$14 to \$20 billion. Three specific factors presented in Table 16–2 have recently been especially important.

Change in Treasury operating cash balance.—The cash balance increased \$16 billion in 2006 and \$23 billion in 2007, as a result of transactions that occurred late in the fiscal year. The operating cash balance is estimated to decrease by \$30 billion by the end of 2008 and then to remain essentially the same. Changes in the operating cash balance, while occasionally large, are inherently limited. Decreases in cash—a means of financing the Government—are limited by the amount of past accumulations, which themselves required financing when they were built up. Increases are limited because it is more efficient to repay debt.

Net financing disbursements of the direct loan and guaranteed loan financing accounts.—Under the Federal Credit Reform Act of 1990, budget outlays for direct loans and loan guarantees consist of the estimated subsidy 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—the disbursement and repayment of loans, the default payments on loan guarantees, the collections of interest and fees, and so forth—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.⁶

The financing accounts also include several types of intragovernmental transactions. In particular, they receive payment from the credit program accounts for the costs of new direct loans and loan guarantees; they also receive payment for any upward reestimate of the costs of direct loans and loan guarantees outstanding. These collections are offset against the gross disbursements of the financing accounts in determining the accounts’ total net cash flows. The gross disbursements include outflows to the public—such as of loan funds or default payments—as well as the payment of any downward reestimate of costs to budgetary receipt accounts. The total net cash flows of the financing accounts, consisting of transactions with both the public and the budgetary accounts, are called “net financing disbursements.” They are defined in the same way as the “outlays” of a budgetary account and therefore affect the requirement for borrowing from the public in the same way as the deficit.

The intragovernmental transactions of the financing accounts do not affect Federal borrowing from the public. Although the deficit changes because of the budget’s outlay to, or receipt from, a financing account, the net financing disbursement changes in an equal amount with the opposite sign, so the effects cancel out. 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. Likewise, financing account receipts from the public can be used to finance the payment of the Government’s obligations, and therefore they reduce the requirement for Federal borrowing from the public in the same way as an increase in budget receipts.

A major part of this financing is normally due to the direct student loan program. 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.

In some years, large net upward or downward reestimates in the cost of outstanding direct and guaranteed loans may cause large swings in the net financing disbursements. In 2007, the upward reestimates in some accounts largely cancelled out the downward reestimates in other accounts, for a net downward reestimate of \$3 billion. In 2008, upward and downward reestimates are again expected to largely cancel out, with a net upward reestimate of \$3 billion. After 2008, the pattern is expected to be more normal.

The financing accounts are estimated to increase the need for borrowing by \$13 billion in 2008 and from

⁶The Federal Credit Reform Act of 1990 (sec. 505(b)) requires that the financing accounts be non-budgetary. As explained in Chapter 23 of this volume, “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 26 of this volume, “The Budget System and Concepts,” and the other references cited in Chapter 23 of this volume.

\$15 billion to \$21 billion in each of the following five years.

Net purchases of non-Federal securities by the National Railroad Retirement Investment Trust.—This trust fund was established by the Railroad Retirement and Survivors' Improvement Act of 2001. In 2003, most of the assets in the Railroad Retirement Board trust funds were transferred to the new trust fund, which invests its assets primarily in private stocks and bonds. The Act ordered special treatment of the purchase or sale of non-Federal assets by this trust fund, treating such purchases as a means of financing rather than an outlay. Therefore, the increased need to borrow from the public to finance the purchase of non-Federal assets is part of the "financing other than borrowing from the public" rather than included as an increase in the deficit. The increased borrowing associated with the transfer expanded publicly held debt by \$20 billion in 2003. Net purchases in subsequent years have been much smaller. Net purchases increased borrowing by \$3 billion in 2007. The net purchases are expected to increase borrowing by \$2 billion in 2008 and then to have a lesser impact on borrowing in future years.⁷

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 93 percent of the total Federal debt held by Government accounts at the end of 2007. In 2007, the total trust fund surplus was \$249 billion, and trust funds invested \$245 billion in

Federal securities. Investment may differ somewhat from the surplus due to changes in the amount of cash assets not currently invested. The remainder of debt issued to Government accounts is owned by a number of special funds and revolving funds. The debt held in major accounts and the annual investments are shown in Table 16–4.

Agency Debt

Some Federal agencies, shown in Table 16–3, sell or have sold debt securities to the public and, at times, to other Government accounts. At one time, several other agencies issued debt securities, but this activity has declined significantly over time. Currently, new debt is issued only by the Tennessee Valley Authority (TVA) and the Federal Housing Administration (FHA); the remaining agencies are repaying existing borrowing. During 2007, agencies repaid \$0.6 billion of debt held by the public, resulting in total agency debt of \$25.2 billion as of the end of the year. Agency debt is less than one percent of Federal debt held by the public. Agencies are estimated to repay small amounts of debt in 2008. As a result of anticipated new borrowing by TVA, agency debt is expected to increase by \$0.2 billion in 2009.

The predominant agency borrower is the Tennessee Valley Authority, which had borrowed \$25 billion from the public as of the end of 2007, or 98 percent of the total debt of all agencies. TVA sells debt primarily to finance capital expenditures.

Table 16–3. AGENCY DEBT

(In millions of dollars)

	Borrowing or repayment (–) of debt			Debt end of 2009 estimate
	2007 actual	2008 estimate	2009 estimate	
Borrowing from the public:				
Housing and Urban Development:				
Federal Housing Administration	–27	*	.....	85
Small Business Administration:				
Participation certificates: Section 505 development company	–7	.....	.....	.....
Architect of the Capitol	–4	–4	–4	144
National Archives	–10	–11	–11	193
Tennessee Valley Authority:				
Bonds and notes	–391	148	387	23,035
Lease/leaseback obligations	–37	–43	–41	988
Prepayment obligations	–105	–106	–105	928
Total, borrowing from the public	–581	–16	226	25,373
Borrowing from other funds:				
Tennessee Valley Authority	–1	.....	.....	6
Total, borrowing from other funds	–1	.....	.....	6
Total, agency borrowing	–582	–16	226	25,379

* \$500,000 or less.

⁷The budget treatment of this fund is further discussed in Chapter 26 of this volume, "The Budget System and Concepts."

The TVA has traditionally financed its capital construction by selling bonds and notes to the public. Since 2000, it has also employed two types of alternative financing methods, lease/leaseback obligations and prepayment obligations. Under the lease/leaseback obligations method, TVA signed contracts to lease some facilities and equipment to private investors and simultaneously lease them back. It received a lump sum for leasing out its assets, and then leased them back at fixed annual payments for a set number of years. TVA retains substantially all of the economic benefits and risks related to ownership of the assets.⁸ Under the prepayment obligations method, TVA's power distributors may prepay a portion of the price of the power they plan to purchase in the future. In return, they obtain a discount on a specific quantity of the future power they buy from TVA. The quantity varies, depending on TVA's estimated cost of borrowing.

The Office of Management and Budget determined that each of these alternative financing methods is a means of financing the acquisition of assets owned and used by the Government, or of refinancing debt previously incurred to finance such assets. They are equivalent in concept to other forms of borrowing from the public, although at different terms and conditions. The budget therefore records the upfront cash proceeds from these methods as borrowing from the public, not offsetting collections. The obligations under these methods are reported as liabilities on TVA's balance sheet under generally accepted accounting principles. Table 16-3 presents these alternative financing methods separately from TVA bonds and notes to distinguish between the types of borrowing. At the end of 2007, obligations were \$1.1 billion for lease/leasebacks and \$1.1 billion for prepayments. Obligations for these two types of alternative financing are estimated to continue to decline as TVA fulfills the terms of the contracts.

The Federal Housing Administration 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 selling securities to the public and then paying the bills by disbursing the cash borrowed, so the transaction is recorded as being simultaneously an outlay and borrowing. The debentures are therefore classified as agency debt.

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 subsequently exercised full control over the design, construction, and operation of the buildings. These arrangements are equivalent to direct Federal construction financed by Federal borrowing. The construction expenditures and interest were therefore classified as Federal outlays, and the borrowing was classified as Federal agency borrowing from the public.

The amount of agency securities sold to the public has been reduced over time 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.

Debt Held by Government Accounts

Trust funds, and some special funds and public enterprise revolving funds, accumulate cash in excess of current needs in order to meet future obligations. These cash surpluses are generally invested in Treasury debt.

Investment by trust funds and other Government accounts has risen greatly for many years. It was \$293 billion in 2007, and is estimated to be \$310 billion in 2008 and \$331 billion in 2009, as shown in Table 16-4. The holdings of Federal securities by Government accounts are estimated to grow to \$4,557 billion by the end of 2009, or 44 percent of the gross Federal debt. The percentage is estimated to rise in the following years, as the trust funds and several major revolving funds and special funds continue to accumulate surpluses while borrowing from the public begins to fall.

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 \$584 billion during 2007-09, which is 62 percent of the total estimated investment by Government accounts. The funds for Federal employee retirement also invest a large share of the total. The military retirement trust fund and the special fund for uniformed services Medicare-eligible retiree health care account for 16 percent of total investment by Government accounts during 2007-2009. The principal trust fund for Federal civilian employees is the Civil Service Retirement and Disability Fund (CSRDF). In 2007, funds were transferred from the CSRDF, the Postal Service, and other sources to create a new special fund for Postal Service retiree health benefits. Together the CSRDF and the new Postal Service retiree health benefit fund account for another 12 percent. The two Medicare trust funds—Hospital Insurance and Supplementary Medical Insurance—account for 5 percent. Altogether, the investment by Social Security, Medicare, and these four Federal employee retirement funds is almost as much as the total investment by Government accounts during this period. At the end of 2009, they are estimated to own 92 percent of the total debt held by Government accounts. Many of the other Government accounts also increase their holdings of Federal securities during this period.

⁸This arrangement is at least as governmental as a "lease-purchase without substantial private risk." For further detail on the current budgetary treatment of lease-purchase without substantial private risk, see OMB Circular No. A-11, Appendix B.

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.

Table 16–4. DEBT HELD BY GOVERNMENT ACCOUNTS¹
(In millions of dollars)

Description	Investment or Disinvestment (–)			Holdings end of 2009 estimate
	2007 actual	2008 estimate	2009 estimate	
Investment in Treasury debt:				
Energy:				
Nuclear waste disposal fund ¹	1,326	884	914	21,845
Uranium enrichment decontamination fund	395	57	225	4,905
Health and Human Services:				
Federal hospital insurance trust fund	17,191	–5,336	10,908	324,949
Federal supplementary medical insurance trust fund	6,187	9,502	7,550	56,300
Vaccine injury compensation fund	246	–135	–146	2,344
Homeland Security: Aquatic resources trust fund	198	–197	50	1,700
Housing and Urban Development:				
Federal Housing Administration mutual mortgage fund	375	–306	–181	21,918
Guarantees of mortgage-backed securities	374	375	417	9,551
Interior:				
Bureau of Land Management permanent operating funds	–151	–141	–132	1,917
Environmental improvement and restoration fund	39	66	40	1,195
Abandoned mine reclamation fund	98	103	114	2,582
Labor:				
Unemployment trust fund	8,711	9,077	8,000	92,000
Pension Benefit Guaranty Corporation ¹	–462	–135	82	14,473
State: Foreign service retirement and disability trust fund	502	518	536	15,432
Transportation:				
Highway trust fund	1,207	–5,135	–5,998	1,072
Airport and airway trust fund	38	19	–1,523	6,427
Aviation insurance revolving fund	190	180	28	1,096
Treasury:				
Exchange stabilization fund	725	862	884	18,182
Comptroller of the Currency Assessment fund	107	147	181	1,140
Veterans Affairs:				
National service life insurance trust fund	–437	–472	–534	8,746
Veterans special life insurance fund	25	11	5	2,001
Corps of Engineers: Harbor maintenance trust fund	552	390	.....	4,105
Other Defense-Civil:				
Medicare-eligible retiree health care fund	19,451	41,659	25,543	159,393
Military retirement trust fund	8,422	25,152	32,637	248,021
Education benefits fund	165	231	168	1,804
Environmental Protection Agency:				
Hazardous substance trust fund	103	87	100	2,931
Leaking underground storage tank trust fund	271	189	250	3,376
International Assistance Programs:				
Overseas Private Investment Corporation	203	125	130	4,731
Office of Personnel Management:				
Civil service retirement and disability trust fund	11,729	31,824	33,398	766,887
Employees life insurance fund	1,683	1,084	1,290	35,339
Employees health benefits fund	1,067	490	402	16,784
Postal Service retiree health benefits fund	25,491	6,787	6,946	39,224
Social Security Administration:				
Federal old-age and survivors insurance trust fund ²	175,133	187,680	201,688	2,357,630
Federal disability insurance trust fund ²	11,652	4,097	3,388	221,315
District of Columbia: Federal pension fund	37	–5	12	3,653
Farm Credit System Insurance Corporation:				
Farm Credit System Insurance fund	275	292	345	3,000
Federal Communications Commission:				
Universal service fund	269	22	.....	5,053

Table 16–4. DEBT HELD BY GOVERNMENT ACCOUNTS¹—Continued
(In millions of dollars)

Description	Investment or Disinvestment (–)			Holdings end of 2009 estimate
	2007 actual	2008 estimate	2009 estimate	
Federal Deposit Insurance Corporation:				
Federal deposit insurance fund	1,300	1,729	2,904	52,148
FSLIC resolution fund	153	292	167	3,641
National Credit Union Administration:				
Share insurance fund	388	293	384	7,814
Postal Service fund ²	–3,254	–979	.....	.....
Railroad Retirement Board trust funds	106	107	–100	2,003
United States Enrichment Corporation fund	75	40	60	1,602
Other Federal funds	953	–1,058	295	5,361
Other trust funds	327	–269	17	3,824
Unrealized discount ¹	–196	.....	.....	–2,159
Total, investment in Treasury debt¹	293,238	310,202	331,444	4,557,255
Investment in agency debt:				
Railroad Retirement Board:				
National Railroad Retirement Investment Trust	–1	.....	.....	6
Total, investment in agency debt¹	–1	.....	.....	6
Total, investment in Federal debt¹	293,237	310,202	331,444	4,557,261
MEMORANDUM				
Investment by Federal funds (on-budget)	51,506	52,119	39,177	383,284
Investment by Federal funds (off-budget)	–3,254	–979	.....	.....
Investment by trust funds (on-budget)	58,397	67,285	87,191	1,597,191
Investment by trust funds (off-budget)	186,784	191,778	205,076	2,578,945
Unrealized discount ¹	–196	.....	.....	–2,159

* \$500 thousand or less.

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 Pension Benefit Guaranty Corporation (PBGC), 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, at the end of 2007 the debt figures would be \$19.4 billion higher for the Nuclear Waste Disposal fund and \$21.3 billion higher for PBGC than recorded in this table.

² Off-budget Federal entity.

First, Treasury issues 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 16–4 at par value less unamortized discount. The only two Government accounts that held zero-coupon bonds during the period of this table are the Nuclear Waste Disposal fund in the Department of Energy and the Pension Benefit Guaranty Corporation (PBGC). The total unamortized discount on zero-coupon bonds was \$40.6 billion at the end of 2007.

Second, Treasury subtracts 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 and debt held by the public, the unrealized discount is the discount at the time of issue and is not amortized over the term of the security. In Table 16–4 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 2007.

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 third part of Table 16–2 compares total Treasury debt with the amount of Federal debt that is subject to the limit. Nearly all Treasury debt is subject to the debt limit. Most of the Treasury debt not subject to the general statutory limit was issued by the Federal Financing Bank (FFB). The FFB, which is within the

Treasury Department, is authorized to have outstanding up to \$15 billion of publicly issued debt. It issued \$14 billion of securities to the Civil Service Retirement and Disability Fund on November 15, 2004, in exchange for an equal amount of regular Treasury securities. The FFB securities have the same interest rates and maturities as the regular Treasury securities for which they were exchanged. The securities mature on dates from June 30, 2009, through June 30, 2019. The other Treasury debt not subject to the general limit consists almost entirely of silver certificates and other currencies no longer being issued. It was \$502 million at the end of 2007 and gradually declines over time.

The sole agency debt currently subject to the general limit, \$69 million at the end of 2007, is certain debentures issued by the Federal Housing Administration.⁹ 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 bonds and notes 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 earlier 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. The amount is relatively small: \$10.2 billion at the end of 2007 compared to the total unamortized discount (less premium) of \$82.1 billion on all Treasury securities.

Changes in the debt limit.—The statutory debt limit has been changed many times. Since 1960, Congress has passed 73 separate acts to raise the limit, extend the duration of a temporary increase, or revise the definition.¹⁰

During the 1990s, the debt limit was increased three times by amounts large enough to last for two years or more. All three of these increases were enacted as part of a deficit reduction package or a plan to balance the budget and were intended to last a relatively long time: the Omnibus Budget Reconciliation Act of 1990; the Omnibus Budget Reconciliation Act of 1993; and the Balanced Budget Act of 1997. The 1997 increase lasted until 2002.

Since 2002, the debt has reached the limit five times. In each instance, the limit has been increased by an amount sufficient to last less than two years. The debt limit was increased to \$6,400 billion on June 28, 2002, to \$7,384 billion on May 27, 2003, to \$8,184 billion on November 19, 2004, to \$8,965 billion on March 20, 2006, and to \$9,815 billion on September 29, 2007. Each time, in the weeks prior to the increase, the Treasury

Department has taken a variety of administrative actions to meet the Government's obligation to pay its bills and invest its trust funds while keeping debt under the existing limit.

Prior to the most recent increase, the Secretary of Treasury wrote Congress in July 2007 that the debt subject to limit would reach the ceiling in early October 2007. Congress passed legislation to increase the limit on September 27 and the President signed the legislation on September 29, before the limit was reached. On September 21, as the anticipated reaching of the limit neared, Treasury announced that it would discontinue the acceptance of subscriptions to the State and local government series of securities, beginning on September 27. On September 28, following Congressional passage of the debt limit increase, Treasury reinstated acceptance of these subscriptions. Because the increase was enacted before the limit was reached, it was not necessary for Treasury to take any other administrative actions.

In most cases, including 2002, 2003, 2004, and 2006, the Government has reached the statutory debt limit before an increase has been enacted. When this has occurred, the Treasury Department has taken additional administrative actions to continue Government operations while remaining below the statutory limit. One such measure is the partial or full disinvestment of the Government Securities Investment Fund (G-fund). This fund is one component of the Thrift Savings Plan (TSP), a defined contribution pension plan for Federal employees. The Secretary has statutory authority to suspend investment of the G-fund in Treasury securities as needed to prevent the debt from exceeding the debt limit. Treasury determines each day the amount of investments that would allow the fund to be invested as fully as possible without exceeding the debt limit. The Treasury Secretary is also authorized to declare a debt issuance suspension period, which allows him or her to redeem a limited amount of securities held by the Civil Service Retirement and Disability Fund (CSRDF) and stop investing its receipts. The law requires that when any such actions are taken with the TSP G-Fund or the CSRDF, the Secretary is required to make the fund whole after the debt limit has been raised by restoring the forgone interest and investing the fund fully. Another measure for staying below the debt limit is disinvestment of the Exchange Stabilization Fund.

In addition to these steps, Treasury has previously replaced regular Treasury securities with borrowing by the Federal Financing Bank, which, as explained above, is not subject to the debt limit. This measure was most recently taken in November 2004, and the outstanding FFB securities will begin to mature in June 2009.

Methods of changing the debt limit.—The statutory limit is usually changed by normal legislative procedures. Under the rules adopted by the House of Representatives, it can also be changed as a consequence of the annual Congressional budget resolution, which is not itself a law. The budget resolution includes a

⁹At the end of 2007, \$16 million of FHA debentures was not subject to limit.

¹⁰The Acts and the statutory limits since 1940 are listed in *Historical Tables, Budget of the United States Government, Fiscal Year 2009, Table 7.3.*

provision specifying the appropriate level of the debt subject to limit at the end of each fiscal year. The rule provides that, when the budget resolution is adopted by both Houses of the Congress, the vote in the House of Representatives is deemed to have been a vote in favor of a Joint Resolution setting the statutory limit at the level specified in the budget resolution. The Joint Resolution is transmitted to the Senate for further action, where it may be amended to change the debt limit provision or in any other way. If it passes both Houses of the Congress, it is sent to the President for his signature. The House of Representatives first adopted this rule for 1980, although it was not included in the rules for several years before 2003. The rule was used for the 2007 debt limit increase.

Federal funds financing and the change in debt subject to limit.—The change in debt held by the public, as shown in Table 16–2, is determined primarily by the total Government deficit or surplus. The debt 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. The effect of debt held by Government accounts on the total debt subject to limit is brought out sharply in the second part of Table 16–2. The change in debt held by Government accounts is a large proportion of the change in total debt subject to limit each year and accounts for over two-thirds of the estimated total increase from 2008 through 2013.

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 receipts earmarked by law for specified purposes, such as paying Social Security benefits or making grants to State governments for highway construction.¹¹

A Federal funds deficit must generally be financed by borrowing, which can be done 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 Treasury securities that are subject to the statutory

debt limit. Very little debt subject to statutory limit has been issued for reasons except to finance the Federal funds deficit. 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 deficit or surplus and the trust fund surplus. Trust fund surpluses are almost entirely invested in securities subject to the debt limit, and trust funds hold most of the debt held by Government accounts. The trust fund surplus reduces the total budget deficit or increases the total budget surplus, decreasing the need to borrow from the public or increasing the ability to repay borrowing from the public. When the trust fund surplus is invested in Federal securities, the debt held by Government accounts increases, offsetting the decrease in debt held by the public by an equal amount. Thus, there is no net effect on gross Federal debt.

Table 16–5 derives the change in debt subject to limit. In 2007 the Federal funds deficit was \$411 billion, and other factors increased financing requirements by \$41 billion. The rise in the Treasury operating cash balance increased financing requirements by \$23 billion and the net financing disbursements of credit financing accounts increased financing requirements by \$17 billion. As an offset, special funds and revolving funds, which are part of the Federal funds group, invested \$48 billion in Treasury securities. The largest single investment was \$19 billion for the uniformed services Medicare-eligible retiree health care fund. In addition, an adjustment is made for the relatively minor difference between the trust fund surplus and the trust funds' investment in Federal securities (including the changes in the National Railroad Retirement Investment Trust's investments in non-Federal securities). As a net result of all these factors, \$499 billion in financing was required, increasing gross Federal debt by that amount. Since Federal debt not subject to limit decreased by \$0.6 billion and the adjustment for discount and premium changed by \$1.1 billion, the debt subject to limit increased by \$501 billion, while debt held by the public increased by \$206 billion.

The debt subject to limit is estimated to increase to \$9,625 billion by the end of 2008. The estimated increases in the debt subject to limit are caused by the continued Federal funds deficit, supplemented by the other factors shown in Table 16–5. While debt held by the public increases by \$1,062 billion from the end of 2007 through 2013, debt subject to limit increases by \$3,334 billion.

¹¹ For further discussion of the trust funds and Federal funds groups, see Chapter 22 of this volume, "Trust Funds and Federal Funds."

Table 16-5. FEDERAL FUNDS FINANCING AND CHANGE IN DEBT SUBJECT TO STATUTORY LIMIT

(In billions of dollars)

Description	Actual 2007	Estimate					
		2008	2009	2010	2011	2012	2013
Change in Gross Federal Debt:							
Federal funds deficit (-)	-410.7	-693.4	-701.6	-484.3	-443.9	-347.0	-345.9
Means of financing other than borrowing—Federal funds ¹	-40.8	18.4	-20.1	-15.2	-14.2	-18.1	-17.8
Decrease or increase (-) in Federal debt held by Federal funds	-48.3	-51.1	-39.2	-41.7	-44.4	-46.8	-45.0
Adjustments for trust fund surplus not invested in Federal securities ²	0.2	22.4	1.9	0.2	0.5	0.2	0.5
Less: change in unrealized discount on Federal debt held by Federal funds	-0.2	.....	.....	.....	.....	.....	.....
Total financing requirements	-499.4	-703.7	-759.0	-541.0	-502.1	-411.7	-408.3
Change in Debt Subject to Limit:							
Change in gross Federal debt	499.4	703.7	759.0	541.0	502.1	411.7	408.3
Less: increase or decrease (-) in Federal debt not subject to limit	-0.6	-*	-1.9	-1.3	-1.7	-1.8	-1.9
Less: change in adjustment for discount and premium ³	-1.1	.....	.....	.....	.....	.....	.....
Total, change in debt subject to limit	501.1	703.7	760.8	542.3	503.7	413.4	410.2
ADDENDUM							
Debt subject to statutory limit ⁴	8,921.3	9,625.1	10,385.9	10,928.2	11,431.9	11,845.4	12,255.5

* \$50 million or less.

¹ Includes Federal fund transactions that correspond to those presented in Table 16-2, but that are for Federal funds alone with respect to the public and trust funds.² Includes trust fund holdings in other cash assets and changes in the investments of the National Railroad Retirement Investment Trust in non-Federal securities.³ Consists of unamortized discount (less premium) on public issues of Treasury notes and bonds (other than zero-coupon bonds).⁴ The statutory debt limit is \$9,815 billion.

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, foreign holdings were just over \$10 billion, less than 5 percent of the total Federal debt held by the public. Foreign holdings began to grow significantly starting in 1970. This increase has been almost entirely due to decisions by foreign central banks, corporations, and individuals, rather than the direct marketing of these securities to foreign residents.

Foreign holdings of Federal debt are presented in Table 16-6. At the end of 2007, foreign holdings of Treasury debt were \$2,240 billion, which was 44 percent of the total debt held by the public.¹² Foreign central banks owned 69 percent of the Federal debt held by foreign residents; private investors owned nearly all the rest. The percentage held by foreign central banks is up from 66 percent at the end of 2006. All the Federal debt held by foreign residents is denominated in dollars.

Table 16-6. FOREIGN HOLDINGS OF FEDERAL DEBT

(Dollar amounts in billions)

Fiscal Year	Debt held by the public			Borrowing from the public	
	Total	Foreign ¹	Percentage foreign	Total ²	Foreign ¹
1965	260.8	12.3	4.7	3.9	0.3
1970	283.2	14.0	5.0	5.1	3.8
1975	394.7	66.0	16.7	51.0	9.2
1980	711.9	121.7	17.1	71.6	1.4
1985 ³	1,507.3	222.9	14.8	200.3	N/A
1990 ³	2,411.6	440.3	18.3	220.8	N/A
1991	2,689.0	477.3	17.7	277.4	37.0
1992	2,999.7	535.2	17.8	310.7	57.9

¹² The debt calculated by the Bureau of Economic Analysis, Department of Commerce, is different, though similar in size, because of a different method of valuing the securities.

Table 16-6. FOREIGN HOLDINGS OF FEDERAL DEBT—Continued

(Dollar amounts in billions)

Fiscal Year	Debt held by the public			Borrowing from the public	
	Total	Foreign ¹	Percent- age foreign	Total ²	Foreign ¹
1993	3,248.4	591.3	18.2	248.7	56.1
1994	3,433.1	655.8	19.1	184.7	64.5
1995 ³	3,604.4	800.4	22.2	171.3	N/A
1996	3,734.1	993.4	26.6	129.7	193.0
1997	3,772.3	1,230.5	32.6	38.3	237.1
1998	3,721.1	1,224.2	32.9	-51.2	-6.3
1999 ³	3,632.4	1,281.4	35.3	-88.7	N/A
2000 ³	3,409.8	1,057.9	31.0	-222.6	N/A
2001	3,319.6	1,005.5	30.3	-90.2	-52.3
2002 ³	3,540.4	1,200.8	33.9	220.8	N/A
2003	3,913.4	1,454.2	37.2	373.0	253.4
2004	4,295.5	1,798.7	41.9	382.1	344.5
2005	4,592.2	1,930.6	42.0	296.7	131.9
2006	4,829.0	2,027.3	42.0	236.8	96.7
2007	5,035.1	2,240.3	44.5	206.2	213.0

N/A = Not available.

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. The estimates include the effects of benchmark revisions in 1984, 1989, 1994, March 2000, and June 2002, 2003, 2004, 2005, and 2006.

² Change in debt held by 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 Because the change in debt that is recorded as held by foreign residents in these fiscal years reflects benchmark or conceptual revisions as well as net changes in holdings of Federal securities, the change in debt is not shown in these years.

Although the amount of Federal debt held by foreign residents has grown greatly over this period, the proportion that foreign residents own, after increasing abruptly in the very early 1970s, remained about 15–20 percent until the mid-1990s. During 1995–97, however, growth in foreign holdings accelerated, with foreign holdings increasing considerably more than total Federal borrowing from the public. As a result, the Federal debt held by individuals and institutions within the United States decreased in absolute amount during those years, despite further Federal borrowing. The percentage of Federal debt held by foreign residents grew from 19 percent at the end of 1994 to 33 percent at the end of 1997. In the next few years the change in foreign debt holdings was much smaller. Federal debt held by foreign residents grew from 34 percent at the end of 2002 to 42 percent at the end of 2004, and then remained at that level in 2005 and 2006. In 2007, Federal debt held by foreign residents increased by \$213 billion, more than the entire change in the debt held by the public. Over the last five years, the increase in foreign holdings was about 70 percent of total Federal borrowing.

Foreign holdings of Federal debt are around 15–20 percent of the foreign-owned assets in the United States, depending on the method of measuring total assets. 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 cred-

it 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.

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; it permits mortgage interest to be deducted in calculating taxable income; 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 7 of this volume, “Credit and Insurance.” Detailed data are presented in tables at the end of that chapter.