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## FEDERAL BORROWING AND DEBT

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## 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: <sup>3</sup>	
	Current Dollars	FY 2000 dollars <sup>1</sup>	GDP	Credit market debt <sup>2</sup>	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.

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

<sup>2</sup>Total 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.

<sup>3</sup>Interest 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.<sup>1</sup> 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.”<sup>2</sup>

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.<sup>3</sup>

<sup>1</sup>Treasury 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.

<sup>2</sup>The term “agency debt” is defined more narrowly in the budget than customarily in the securities market, where it includes not only the debt of the Federal agencies listed in Table 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.

<sup>3</sup>The 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.<sup>4</sup>

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,

<sup>4</sup>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
<b>Financing:</b>							
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: <sup>1</sup>							
Treasury operating cash balance (-) .....	-23.1	30.2	.....	.....	.....	.....	.....
Checks outstanding, etc. <sup>2</sup> .....	-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
<b>Changes in Debt Subject to Statutory Limitation:</b>							
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
<b>Debt Subject to Statutory Limitation, End of Year:</b>							
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 (-) <sup>3</sup> .....	-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 <sup>4</sup> .....	10.2	10.2	10.2	10.2	10.2	10.2	10.2
Total, debt subject to statutory limitation <sup>5</sup> .....	8,921.3	9,625.1	10,385.9	10,928.2	11,431.9	11,845.4	12,255.5
<b>Debt Outstanding, End of Year:</b>							
Gross Federal debt: <sup>6</sup>							
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 <sup>7</sup> .....	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.

<sup>1</sup> 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.<sup>2</sup> 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.<sup>3</sup> Consists primarily of Federal Financing Bank debt.<sup>4</sup> 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.<sup>5</sup> The statutory debt limit is \$9,815 billion, enacted on September 29, 2007.<sup>6</sup> 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).<sup>7</sup> 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.<sup>5</sup> 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-

<sup>5</sup> 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.<sup>6</sup>

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

<sup>6</sup>The 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.<sup>7</sup>

*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	
<b>Borrowing from the public:</b>				
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
<b>Total, borrowing from the public</b> .....	–581	–16	226	25,373
<b>Borrowing from other funds:</b>				
Tennessee Valley Authority .....	–1	.....	.....	6
<b>Total, borrowing from other funds</b> .....	–1	.....	.....	6
<b>Total, agency borrowing</b> .....	–582	–16	226	25,379

\* \$500,000 or less.

<sup>7</sup>The 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.<sup>8</sup> 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.

<sup>8</sup>This 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.

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.

*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 ACCOUNTS<sup>1</sup>**  
(In millions of dollars)

Description	Investment or Disinvestment (–)			Holdings end of 2009 estimate
	2007 actual	2008 estimate	2009 estimate	
<b>Investment in Treasury debt:</b>				
Energy:				
Nuclear waste disposal fund <sup>1</sup> .....	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 <sup>1</sup> .....	–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 <sup>2</sup> .....	175,133	187,680	201,688	2,357,630
Federal disability insurance trust fund <sup>2</sup> .....	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 ACCOUNTS<sup>1</sup>—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 <sup>2</sup> .....	–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 <sup>1</sup> .....	–196	.....	.....	–2,159
<b>Total, investment in Treasury debt<sup>1</sup> .....</b>	<b>293,238</b>	<b>310,202</b>	<b>331,444</b>	<b>4,557,255</b>
<b>Investment in agency debt:</b>				
Railroad Retirement Board:				
National Railroad Retirement Investment Trust .....	–1	.....	.....	6
<b>Total, investment in agency debt<sup>1</sup> .....</b>	<b>–1</b>	<b>.....</b>	<b>.....</b>	<b>6</b>
<b>Total, investment in Federal debt<sup>1</sup> .....</b>	<b>293,237</b>	<b>310,202</b>	<b>331,444</b>	<b>4,557,261</b>
<b>MEMORANDUM</b>				
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 <sup>1</sup> .....	–196	.....	.....	–2,159

\* \$500 thousand or less.

<sup>1</sup> 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.

<sup>2</sup> 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.<sup>9</sup> 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.<sup>10</sup>

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

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

<sup>10</sup>The 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.<sup>11</sup>

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.

<sup>11</sup> 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
<b>Change in Gross Federal Debt:</b>							
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 <sup>1</sup> .....	-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 <sup>2</sup> .....	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	.....	.....	.....	.....	.....	.....
<b>Total financing requirements</b> .....	<b>-499.4</b>	<b>-703.7</b>	<b>-759.0</b>	<b>-541.0</b>	<b>-502.1</b>	<b>-411.7</b>	<b>-408.3</b>
<b>Change in Debt Subject to Limit:</b>							
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 <sup>3</sup> .....	-1.1	.....	.....	.....	.....	.....	.....
<b>Total, change in debt subject to limit</b> .....	<b>501.1</b>	<b>703.7</b>	<b>760.8</b>	<b>542.3</b>	<b>503.7</b>	<b>413.4</b>	<b>410.2</b>
<b>ADDENDUM</b>							
Debt subject to statutory limit <sup>4</sup> .....	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.

<sup>1</sup> 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.<sup>2</sup> Includes trust fund holdings in other cash assets and changes in the investments of the National Railroad Retirement Investment Trust in non-Federal securities.<sup>3</sup> Consists of unamortized discount (less premium) on public issues of Treasury notes and bonds (other than zero-coupon bonds).<sup>4</sup> 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.<sup>12</sup> 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 <sup>1</sup>	Percentage foreign	Total <sup>2</sup>	Foreign <sup>1</sup>
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 <sup>3</sup> .....	1,507.3	222.9	14.8	200.3	N/A
1990 <sup>3</sup> .....	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

<sup>12</sup> 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 <sup>1</sup>	Percentage foreign	Total <sup>2</sup>	Foreign <sup>1</sup>
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 <sup>3</sup> .....	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 <sup>3</sup> .....	3,632.4	1,281.4	35.3	–88.7	N/A
2000 <sup>3</sup> .....	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 <sup>3</sup> .....	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.

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

