
FEDERAL BORROWING AND DEBT

13. FEDERAL BORROWING AND DEBT

Debt is the largest legally binding obligation of the Federal Government. At the end of 2002, the Government owed \$3,540 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 \$179 billion of interest on this debt.

The budget surplus declined in 2001 and shifted to a deficit in 2002, primarily because of the recession coupled with a slow recovery, the three-year decline in the stock market, and the increased spending in response to the terrorist attacks. As a result of these factors and the President's tax proposals to raise long-

term growth and strengthen the economy against potential risks, the deficit is estimated to rise to a higher level in 2003 and 2004 before declining. Debt held by the public as a percentage of GDP is temporarily increasing through 2004.

Trends in Debt Since World War II

Table 13-1 depicts trends in Federal debt held by the public from World War II to the present and estimates from the present to 2008. (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.)

Table 13-1. 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 1996 dollars ¹	GDP	Credit market debt ²	Total outlays	GDP
1946	241.9	1,728.3	108.6	N/A	7.4	1.8
1950	219.0	1,270.7	80.1	53.3	11.4	1.8
1955	226.6	1,154.9	57.3	43.2	7.6	1.3
1960	236.8	1,070.7	45.6	33.8	8.5	1.5
1965	260.8	1,102.4	37.9	26.9	8.1	1.4
1970	283.2	994.2	28.0	20.8	7.9	1.5
1975	394.7	1,020.6	25.3	18.4	7.5	1.6
1980	711.9	1,271.6	26.1	18.5	10.6	2.3
1985	1,507.3	2,050.9	36.4	22.3	16.2	3.7
1986	1,740.6	2,312.9	39.5	22.6	16.1	3.6
1987	1,889.8	2,443.9	40.7	22.3	16.0	3.5
1988	2,051.6	2,569.0	40.9	22.2	16.2	3.4
1989	2,190.7	2,641.6	40.5	22.0	16.5	3.5
1990	2,411.6	2,802.6	42.0	22.6	16.1	3.5
1991	2,689.0	3,008.0	45.3	24.1	16.2	3.6
1992	2,999.7	3,269.7	48.2	25.7	15.5	3.4
1993	3,248.4	3,458.4	49.5	26.6	14.9	3.2
1994	3,433.1	3,577.5	49.4	26.8	14.4	3.0
1995	3,604.4	3,676.4	49.2	26.7	15.8	3.3
1996	3,734.1	3,734.1	48.5	26.2	15.8	3.2
1997	3,772.3	3,700.1	46.1	25.2	15.7	3.1
1998	3,721.1	3,599.2	42.9	23.3	15.1	2.9
1999	3,632.4	3,467.1	39.8	21.3	13.8	2.6
2000	3,409.8	3,193.1	35.1	19.0	13.0	2.4
2001	3,319.6	3,034.4	33.1	17.5	11.6	2.1
2002	3,540.4	3,195.3	34.3	17.5	8.9	1.7
2003 estimate	3,878.4	3,456.4	36.1	N/A	8.0	1.6
2004 estimate	4,166.1	3,659.3	36.9	N/A	8.4	1.7
2005 estimate	4,386.5	3,795.0	36.9	N/A	9.3	1.8
2006 estimate	4,602.6	3,918.1	36.9	N/A	9.7	1.9
2007 estimate	4,796.6	4,014.7	36.6	N/A	10.0	2.0
2008 estimate	5,002.9	4,114.3	36.4	N/A	10.1	2.0

N/A = not available

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

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

³ 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).

Source: Federal Reserve Board flow of funds accounts. Projections are not available.

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 80.1 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 49.5 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, has been declining 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 current economic conditions and response to the terrorist attacks have stopped the downward trend in debt relative to GDP for the next few years. The recession, slow recovery, and three-year decline in the stock market reduced tax receipts; and spending increased for war and homeland security. The budget had a deficit in 2002, and the President has proposed tax cuts to stimulate jobs and economic growth and higher spending for security needs. As a result of the ensuing deficits, table 13-1 shows a rise in debt held by the public throughout the projection period. Even during this period, however, debt rises slightly as a percentage of GDP in 2003 and 2004 and then levels off. By 2008, debt as a percentage of GDP is estimated to be 36.4 percent. Interest as a percentage of outlays is estimated to be 10.1 percent that year.

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. Even if the proceeds are used productively for tangible or intangible investment, the Federal demand on credit markets has to be financed out of the saving of households and businesses, the State and local sector, or the rest of the world. Federal borrowing thereby competes with the borrowing of other 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 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

¹ Debt held by the public was measured until 1988 as the par value (or face value) of the security, which is the principal amount due at maturity. (The only exception was savings bonds.) However, most Treasury securities are sold at a discount from par, and some are sold at a premium. Treasury debt held by the public is now measured as the sales price plus the amortized discount (or less the amortized premium). At the time of sale, the 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.

² 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 13-3 but also the debt of the Government-sponsored enterprises listed in table 9-11 at the end of chapter 9 and certain Government-guaranteed securities.

³ The Federal sector of the national income and product accounts provides a measure of the current surplus or deficit that can be used to analyze the effect of Federal fiscal policy on national saving within the framework of an integrated set of measures of aggregate U.S. economic activity. The Federal sector and its differences from the budget are discussed in chapter 17 of this volume, "National Income and Product Accounts." Also see chapter 7 of this volume, Part III, the section on the analysis of saving and investment.

Table 13-2. FEDERAL GOVERNMENT FINANCING AND DEBT

(In billions of dollars)

	Actual 2002	Estimate					
		2003	2004	2005	2006	2007	2008
Financing:							
Unified budget deficit (-)/ surplus (+)	-157.8	-304.2	-307.4	-208.2	-200.5	-178.1	-189.6
Financing other than the change in debt held by the public:							
Premiums paid (-) on buybacks of Treasury securities	-3.8	.....	.....	.....	.....	.....	.....
Net purchases (-) of non-Federal securities by the National Railroad Retirement Investment Trust	-1.5	-16.5	-0.1	1.1	1.3	1.3	1.4
Changes in: ¹							
Treasury operating cash balance	-16.7	10.9	.....	.....	.....	.....	.....
Compensating balances ²	-14.0	-9.6	37.0	.....	.....	.....	.....
Checks outstanding, etc. ³	-11.7	-4.5	.....	.....	.....	.....	.....
Seigniorage on coins	1.0	1.1	1.1	1.1	1.1	1.1	1.1
Less: Net financing disbursements:							
Direct loan financing accounts	-14.8	-16.4	-19.4	-14.6	-19.8	-20.2	-21.1
Guaranteed loan financing accounts	-1.5	1.3	1.2	0.2	1.7	1.9	1.9
Total, financing other than the change in debt held by the public	-63.0	-33.9	19.8	-12.2	-15.6	-15.9	-16.7
Total, requirement to borrow from the public	-220.8	-338.0	-287.6	-220.5	-216.1	-194.0	-206.3
Change in debt held by the public	220.8	338.0	287.6	220.5	216.1	194.0	206.3
Change in Debt Subject to Statutory Limitation:							
Change in debt held by the public	220.8	338.0	287.6	220.5	216.1	194.0	206.3
Change in debt held by Government accounts	207.7	215.6	281.1	296.3	299.7	310.1	323.9
Change in other factors	0.1	15.7	0.2	0.4	0.1	0.5	0.6
Total, change in debt subject to statutory limitation	428.6	569.3	569.0	517.2	516.0	504.6	530.7
Debt Subject to Statutory Limitation, End of Year:							
Debt issued by Treasury	6,171.0	6,725.2	7,294.2	7,811.4	8,327.4	8,832.0	9,362.8
Adjustment for Treasury debt not subject to limitation and agency debt subject to limitation ⁴	-15.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Adjustment for discount and premium ⁵	5.7	5.7	5.7	5.7	5.7	5.7	5.7
Total, debt subject to statutory limitation ⁶	6,161.4	6,730.7	7,299.7	7,816.9	8,332.9	8,837.5	9,368.2
Debt Outstanding, End of Year:							
Gross Federal debt ⁷ :							
Debt issued by Treasury	6,171.0	6,725.2	7,294.2	7,811.4	8,327.4	8,832.0	9,362.8
Debt issued by other agencies	27.4	26.8	26.6	26.1	26.0	25.5	24.9
Total, gross Federal debt	6,198.4	6,752.0	7,320.8	7,837.5	8,353.4	8,857.5	9,387.7
Held by:							
Debt held by Government accounts	2,658.0	2,873.6	3,154.7	3,451.0	3,750.7	4,060.9	4,384.7
Debt held by the public ⁸	3,540.4	3,878.4	4,166.1	4,386.5	4,602.6	4,796.6	5,002.9

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. The Administration is proposing legislation to replace them with an appropriation in 2004.

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 primarily of Federal Financing Bank debt in 2002.

⁵ 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.

⁶ The statutory debt limit is \$6,400 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 measured at face value less unrealized discount (if any).

⁸ At the end of 2002, the Federal Reserve Banks held \$604.2 billion of Federal securities and the rest of the public held \$2,936.2 billion. Debt held by the Federal Reserve Bank is not estimated for future years.

mechanism for that fund to accumulate interest on its balances. These accounting balances 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 ac-

count'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 now own 88 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. Chapter 3 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 Real Fiscal Danger," uses the same data in less detail to explain the long-run challenges to 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 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 3 of this volume, "Stewardship." The different types of liabilities are reported annually in the financial statements of the major Federal agencies and in the *Financial Report of the United States Government*, prepared by the Treasury Department.

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. A summary of actuarial estimates for these and other programs is included annually in the *Financial Report of the United States Government*, prepared by the Treasury Department.

Technical note on retroactive revision to the discount or premium on Treasury debt securities.—Treasury securities held by the public are measured as the par value less the unamortized discount or premium, as explained in footnote 1. The Bureau of Public Debt changed its method of amortizing discounts and premiums on many Treasury debt securities effective October 1, 2002. The Bureau converted from the straight-line method to the scientific level yield method on public issues of notes and bonds. The scientific level yield method is similar to the effective interest method and produces an effective interest rate on the security that is nearly constant over the life of the security.

Because the new method amortizes discounts and premiums more slowly than the straight-line method, the change increased the unamortized premiums and discounts on debt held by the public as of September 30, 2002, by \$671 million. The debt held by the public decreased by an identical \$671 million. Debt held by the public and interest outlays for 1978 through 2002 were revised by altering the historical amortization schedule of all public issues of Treasury notes and bonds outstanding at the end of 2002. Debt held by the public was reduced by amounts ranging from less than \$1 million in 1978 to \$671 million in 2002. Interest outlays were reduced by amounts that cumulate to an identical \$671 million. It was not practicable to make any adjustment for notes and bonds that had matured. The revised data on Federal debt are included in this chapter and published in full in *Historical Tables*, table 7.1.

Government Surpluses or Deficits and the Change in Debt

Table 13–2 summarizes Federal borrowing and debt from 2002 through 2008. In 2002 the Government borrowed \$221 billion, so the debt held by the public increased to \$3,540 billion. The debt held by Government accounts increased \$208 billion, and gross Federal debt increased by \$429 billion to a level of \$6,198 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 2 of this volume.

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

⁵ For further explanation of the off-budget Federal entities, see chapter 20, "Off-Budget Federal Entities and Non-Budgetary Activities."

off-budget totals are virtually the same as Social Security, which had a large surplus in 2002 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 13–2, 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 a deficit.) In 2002 the deficit was \$158 billion and the “financing other than the change in debt held by the public” was minus \$63 billion. As a result, the Government borrowed \$221 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 \$2,414 billion and the increase in debt held by the public was \$2,616 billion. The other factors added a total of \$202 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 also generally a good approximation to say that the deficit and borrowing (or the surplus and debt repayment) are about the same. However, as shown in table 13–2, a combination of events may produce a relatively large total for the other factors in a particular year. In 2002, 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 total amount and an unusually large proportion. Three specific factors were especially important in 2002 and one more will be very important in 2003.

The first factor is the change in *Treasury operating cash balance*. The operating cash balance rose \$17 billion during 2002, partly because it had been lower than planned at the end of the previous year. It is estimated to decrease \$11 billion during 2003. Changes in the operating cash balance, while they may occasionally be 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.

Second is the *change in compensating balances*, which Treasury mainly uses to compensate banks for collecting tax and non-tax receipts under financial agency agreements. Under these agreements, Treasury deposits a non-interest bearing compensating balance with a bank. The imputed earnings value of the compensating

balance, typically calculated at the 91-day Treasury bill rate, is the source of the bank's compensation for performing the required services related to these collections. Treasury determines the size of the compensating balance on deposit by balancing the value of the services provided with the imputed earnings value of the compensating balance. Banks can use the compensating balances on deposit to make loans or buy investments, and all compensating balances are fully collateralized. Any decrease in the interest rate applied to compensating balances requires Treasury to increase the size of compensating balances on deposit. Because interest rates decreased so much during 2002, Treasury had to increase its compensating balances by \$14 billion to pay for the services.

It is estimated that Treasury will have to increase its compensating balances by another \$10 billion this year. To some extent, this is because of lower interest rates. However, the main reason is to make up for events that occurred during 2002, including the temporary withdrawal of balances when the Federal debt was pressing up against the debt limit. Treasury finances an increase in compensating balances by borrowing from the public or other means of financing.

This budget proposes legislation to replace compensating balances in 2004 by a permanent indefinite appropriation for Treasury to pay banks directly for their services as depositories and financial agents. As a result, as table 13–2 shows, the budget estimates that compensating balances will be drawn down from \$37 billion to zero in 2004. This is expected to simplify Treasury's cash and debt management, making it more efficient, especially when interest rates change sharply. This is also expected to reduce the deficit, with the interest saved on lower borrowing being more than the outlays to pay for the services. The budget estimates savings of \$637 million for the five years 2004–08.

Third is the *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. Under the Act, most of the assets in the Railroad Retirement Board trust funds are transferred to the new trust fund, which is expected to invest 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 masked as part of the “financing other than the change in debt held by the public” rather than included as an increase in the deficit. The budget estimates that this will increase borrowing and publicly held debt by \$17 billion in 2003. Net purchases or sales in subsequent years are estimated to be relatively small.⁶

The fourth and final major factor is the *net financing disbursements for the direct loan and guaranteed loan*

⁶ The budget treatment of this fund is further discussed in chapter 24, “Budget System and Concepts and Glossary.”

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

⁷ The Federal Credit Reform Act of 1990 (sec. 505(b)) requires that the financing accounts be non-budgetary. As explained in chapter 20, "Off-Budget Federal Entities and Non-Budgetary Activities," they are non-budgetary in concept because they do not measure cost. For additional discussion of credit reform, see chapter 24 of this volume, "Budget System and Concepts and Glossary," and the other references cited in chapter 20.

The impact of the financing accounts became large in the mid-1990s. In 2002 they required \$16 billion of financing, which increased borrowing by this amount. They are estimated to require additional financing of \$15 billion in 2003 and from \$14 billion to \$19 billion in 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 2002. In 2002, for example, the total trust fund surplus was \$202 billion, and Government accounts invested \$208 billion in Federal securities. The difference is mainly because some revolving funds and special funds also invest in Federal debt. In addition, the trust funds may change the amount of their cash assets not currently invested. A new reason, starting in 2003, is that the National Railroad Retirement Investment Trust will invest mostly in private securities. The debt held in major accounts and the annual investments are shown in table 13–4.

Agency Debt

Several Federal agencies, shown in table 13–3, sell debt securities to the public and at times in the past have sold securities to other Government accounts. During 2002, agencies borrowed \$0.2 billion from the public. Agency debt is barely one percent of Federal debt held by the public. Agencies are estimated to repay small amounts of debt in 2003 and 2004.

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 2002, or 94 percent of the total debt of all agencies. TVA sells debt primarily to finance capital expenditures.

Table 13-3 AGENCY DEBT

(In millions of dollars)

	Borrowing or repayment (-) of debt			Debt end of 2004 estimate
	2002 Actual	2003 Estimate	2004 Estimate	
Borrowing from the public:				
Housing and Urban Development:				
Federal Housing Administration	66	0	0	298
Small Business Administration:				
Participation certificates: Section 505 development company	0	0	0	7
Architect of the Capitol	-2	-2	-3	163
Farm Credit System Financial Assistance Corporation	0	-450	0	325
Federal Communications Commission	-11	-114	0	0
Federal Deposit Insurance Corporation:				
FSLIC Resolution Fund	-63	0	0	0
National Archives	-7	-7	-8	243
Tennessee Valley Authority:				
Bonds and Notes	-120	-381	-191	24,689
Lease obligations ¹	289	304	-40	825
Total, borrowing from the public	152	-651	-242	26,550
Total, agency borrowing	152	-651	-242	26,550

¹ Lease obligations revised retroactively for 2000-02 as explained in the accompanying text.

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 has subsequently exercised full control over the design, construction, and operation of the buildings. The construction expenditures and interest were therefore classified as Federal outlays, and the borrowing was classified as Federal agency borrowing from the public.

The proper budgetary treatment of lease-purchases was further examined in connection with the Budget Enforcement Act of 1990. Several changes were made. Among other decisions, it was determined that outlays

⁸ The debt securities of the FSLIC Resolution fund were also issued as a means of paying specified bills. The budgetary treatment of these and similar securities is further explained in Special Analysis E of the 1989 *Budget*, pp. E-25 to E-26; and Special Analysis E of the 1988 *Budget*, pp. E-27 to E-28.

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 according to an amortization schedule by a portion of the annual lease payments. 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 there were no substantive changes from previous practice.

The Tennessee Valley Authority has primarily financed its capital construction by selling bonds and notes to the public. Starting in 2000, it has also signed contracts to lease some recently constructed power generators to private investors and simultaneously lease them back. TVA receives a lump sum for leasing out its assets, and then leases 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.

⁹ 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. See OMB Circular No. A-11, Part 2, Appendix B. Also see the section on "outlays" in chapter 24, "Budget System and Concepts and Glossary."

Table 13-4. DEBT HELD BY GOVERNMENT ACCOUNTS ¹

(In millions of dollars)

Description	Investment or disinvestment (-)			Holdings end of 2004 estimate
	2002 Actual	2003 Estimate	2004 Estimate	
Investment in Treasury debt:				
Defense-Military:				
Uniformed Services Retiree Health Care Fund		18,222	20,026	38,248
Energy:				
Nuclear waste disposal fund	2,179	1,247	1,282	15,680
Uranium enrichment decontamination fund	431	504	393	3,884
Health and Human Services:				
Federal hospital insurance trust fund	31,769	27,015	27,102	283,023
Federal supplementary medical insurance trust fund	-3,174	-10,179	4,227	32,852
Vaccine Injury compensation fund	130	222	80	2,060
Housing and Urban Development:				
Federal Housing Administration mutual mortgage fund	3,966	7,200	5,000	33,449
Other HUD	378	226	272	7,458
Interior: Abandoned Mine Reclamation fund	29	142	139	2,176
Labor:				
Unemployment trust fund	-20,374	-18,444	818	50,639
Pension Benefit Guaranty Corporation ¹	919	544	98	13,137
State: Foreign Service retirement and disability trust fund	543	560	562	12,856
Transportation:				
Highway trust fund	-5,275	632	3,786	23,258
Airport and airway trust fund	-2,663	1,343	-1,762	10,578
Oil spill liability trust fund	-125	-18	-69	916
Aquatic resources trust fund	65	-63	.....	1,306
Treasury: Exchange stabilization fund	-297	485	511	10,713
Veterans Affairs:				
National service life insurance trust fund	-174	-236	-306	10,923
Other trust funds	36	10	-7	1,919
Federal funds	-15	-25	-2	484
Defense-Civil:				
Military retirement trust fund	5,418	12,458	13,717	188,571
Harbor maintenance trust fund	-1	29	.....	1,833
Environmental Protection Agency:				
Hazardous substance trust fund	-396	-396	-213	2,625
Leaking underground storage tank trust fund	189	231	203	2,327
International Assistance Programs:				
Overseas Private Investment Corporation	114	159	152	3,775
Office of Personnel Management:				
Civil Service retirement and disability trust fund	31,105	28,878	30,748	633,339
Employees life insurance fund	1,660	642	1,393	27,385
Employees health benefits fund	903	648	742	8,944
Social Security Administration:				
Federal old-age and survivors insurance trust fund ²	139,646	145,738	158,716	1,478,213
Federal disability insurance trust fund	19,445	13,329	12,906	181,522
Farm Credit System Insurance Corporation:				
Farm Credit System Insurance fund	87	132	160	1,978
Federal Deposit Insurance Corporation:				
Bank Insurance fund	-136	414	401	31,357
FSLIC Resolution fund	151	489	21	3,310
Savings Association Insurance fund	499	634	220	12,007
National Credit Union Administration: Share insurance fund	606	515	396	6,060
Postal Service fund	172	-30	.....	1,400
Railroad Retirement Board trust funds ¹	-263	-16,994	-1,080	1,984
Other Federal funds	476	200	694	8,486
Other trust funds	-312	-843	-213	5,894
Unrealized discount ¹	-3	.....	.....	-1,861
Total, investment in Treasury debt ¹	207,708	215,621	281,113	3,154,708
Investment in agency debt:				
Total, investment in agency debt				
Total, investment in Federal debt ¹	207,708	215,621	281,113	3,154,708
MEMORANDUM				
Investment by Federal funds (on-budget)	9,386	31,089	29,763	192,202
Investment by Federal funds (off-budget)	172	-30	.....	1,400
Investment by trust funds (on-budget)	39,063	25,494	79,728	1,303,232

Table 13-4. DEBT HELD BY GOVERNMENT ACCOUNTS ¹—Continued

(In millions of dollars)

Description	Investment or disinvestment (-)			Holdings end of 2004 estimate
	2002 Actual	2003 Estimate	2004 Estimate	
Investment by trust funds (off-budget)	159,091	159,067	171,622	1,659,735
Unrealized discount ¹	-3	.....	.....	-1,861

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 \$10.3 billion higher than recorded in this table at the end of 2002; the debt held by PBGC would be \$0.3 billion higher; and the debt held by the Railroad Retirement Board would be \$5.2 billion higher.

² Off-budget Federal entity.

The Office of Management and Budget determined a year ago that the TVA lease/leaseback in 2002 was a means of financing the acquisition of an asset owned and used by the Government. The arrangement was at least as governmental as a “lease-purchase without substantial private risk.” The budget therefore recorded the upfront cash proceeds from the lease as borrowing from the public, not offsetting collections. Agency debt in the form of a lease obligation was recorded as a type of borrowing. In this year’s budget, the same treatment is used for the lease/leaseback estimated for 2003. For consistent treatment with budget concepts, agency debt is retroactively recorded for the lease/leaseback in 2000.¹⁰ The total amount of the lease obligations is shown in table 13-3 separately from TVA bonds and notes to distinguish between the types of borrowing. The obligation for lease/leasebacks increases to \$865 million at the end of 2003 and then declines steadily as it is amortized.

TVA borrowing is limited by a statutory cap of \$30 billion on the amount of debt that may be outstanding. Because current authorizations are unclear on the point, the budget proposes legislation to ensure that lease/leasebacks and other arrangements that are equivalent to traditional debt financing are included under TVA’s debt cap.

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.

¹⁰ The retroactive revision adds \$300 million to TVA debt at the end of 2000, \$272 million at the end of 2001, and \$265 million at the end of 2002.

Investment by trust funds and other Government accounts has risen greatly for many years. It was \$208 billion in 2002, as shown in table 13-4, and is estimated to be \$281 billion in 2004. The holdings of Federal securities by Government accounts are estimated to grow to \$3,155 billion by the end of 2004, or 43 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. By 2008, debt held by Government accounts is estimated to be 47 percent of the gross Federal debt.

The large investment by Government accounts is concentrated among a few trust funds. The two Social Security trust funds—Old-Age and Survivors Insurance and Disability Insurance have a large combined surplus and invest \$490 billion during 2002-04, which is 70 percent of the total estimated investment by Government accounts. The two Medicare trust funds—Hospital Insurance and Supplementary Medical Insurance—account for another 11 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 2002-04. The military retirement trust fund and the special fund for uniformed service retiree medical care account for 10 percent. Altogether, the investment of Social Security, Medicare, and these three retirement funds is more than the total investment by all Government accounts during this period. At the end of 2004, they are estimated to own 90 percent of the total debt held by Government accounts.

Many of the other Government accounts also increased their holdings of Federal securities during this period, but two of them record major decreases. The unemployment trust fund disinvests a total of \$39 billion last year and this year due to the effect of the recession and slow recovery on unemployment. The Railroad Retirement Board trust funds disinvest \$17 billion this year and small amounts in 2002 and 2004. This is because their assets are being transferred to the National Railroad Retirement Investment Trust, as explained previously, which is expected to invest mostly in private stocks and bonds.

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 PBGC no longer holds zero-coupon bonds, and the Rail Industry Pension fund is expected to disinvest them this year as it transfers assets to the National Railroad Retirement Investment Trust as discussed above. The total unamortized discount of these zero-coupon bonds was \$15.8 billion at the end of 2002.

Second, in September 1993 Treasury began to subtract the unrealized discount on other Government account series securities in calculating “net federal securities held as investments of government accounts.” Unlike the discount recorded for zero-coupon bonds or for any debt held by the public, the unrealized discount is the discount at the time of issue and is not amortized over the term of the security. In table 13–4 it is shown as a separate item at the end of the table and not distributed by account. The amount was \$1.9 billion at the end of 2002.

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 13–2 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 limit was issued by the FFB (Federal Financing Bank), whose debt is not included under the limit. The FFB is authorized to have outstanding up to \$15 billion of publicly issued debt, and this amount was issued sev-

eral years ago to the Civil Service Retirement and Disability trust fund. However, it was redeemed in early 2003 and is estimated to remain zero. The remaining Treasury debt not subject to limit consists almost entirely of sliver certificates and other currencies no longer being issued.

The sole type of agency debt currently subject to the general limit is the debentures issued by the Federal Housing Administration, which added only \$283 million at the end of 2002. 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 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 9 to table 13–2. The amount is relatively small: \$5.7 billion at the end of 2002 compared to the total unamortized discount (less premium) of \$57.3 billion on all Treasury securities.

Changes in the debt limit.—The statutory debt limit has been changed many times. Since 1960, Congress has passed 69 separate acts to raise the limit, extend the duration of a temporary increase, or revise the definition. For a long period up to mid-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. The increase in 2002, however, was intended to last a much shorter period.¹¹

Major increases in the debt limit were enacted as part of the deficit reduction packages in the Omnibus Budget Reconciliation Acts of 1990 and 1993. Both changes in law were preceded by one or more temporary increases in the limit before agreement was reached on the debt and the deficit reduction measures together. Both increases in the debt limit were large enough to last over two years without a further change in law, the longest times without an increase since the period from 1946 to 1954.

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

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

that increased the debt limit from \$4,900 billion to \$5,500 billion.

During 1997, unlike 1996, the President and the Congress reached agreement on a plan to balance the budget. This included a sufficient increase in the debt limit to accommodate Government finances for longer than possible under the limit enacted in the previous year, even though the amount of debt at that time was considerably under the limit. As a result, the Balanced Budget Act of 1997, which the President signed into law in August 1997, increased the debt limit to \$5,950 billion.

This limit lasted more than four years. It was not until December 2001 that the Secretary of the Treasury again requested an increase in the debt limit. When the limit had not been increased and the debt was about to run up against the limit at the beginning of April 2002, he declared that he would suspend new investments in the Government Securities Investment Fund (G-fund). This fund is one component of the Thrift Savings Fund, a defined contribution plan for Federal employees. The Secretary has statutory authority to suspend investments of the G-fund in Treasury securities as needed to prevent the debt from exceeding the

debt limit, and to make the fund whole after the period has ended by restoring the lost interest and investing it fully. Starting on April 4, when the debt reached the limit, 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. Treasury fully restored the lost interest of the G-fund and invested its principal on April 16, when substantial tax receipts were collected. This made the fund whole and protected the participants from any loss. In addition to these steps, Treasury called back about \$7 billion of compensating balances from the banks for a very short time just before it began to suspend investments.

The Secretary declared a debt issuance suspension period as of May 16, when the debt again approached the limit. Treasury again did not fully invest the G-fund, and, under similar statutory authority, it re-deemed a relatively small amount of securities held by the Civil Service Retirement and Disability fund. Treasury augmented these steps by suspending the sales of state and local government issues to enhance control, by calling back about \$20 billion of compensating balances for two weeks in June, and by post-

Table 13-5. FEDERAL FUNDS FINANCING AND CHANGE IN DEBT SUBJECT TO STATUTORY LIMIT

(In billions of dollars)

Description	2002 Actual	Estimate					
		2003	2004	2005	2006	2007	2008
Federal funds deficit (-)	-360.2	-496.5	-548.1	-472.5	-467.2	-453.4	-476.4
Means of financing other than borrowing:							
Premiums paid (-) on buybacks of Treasury securities	-3.8	.....	.....	.....	.....	.....	.....
Net purchases (-) of non-Federal securities by the National Railroad Retirement Investment Trust	-1.5	-16.5	-0.1	1.1	1.3	1.3	1.4
Change in: ¹							
Treasury operating cash balances	-16.7	10.9	.....	.....	.....	.....	.....
Compensating balances ²	-14.0	-9.6	37.0	.....	.....	.....	.....
Checks outstanding, etc. ³	-7.5	3.3	-10.6	.....	.....	.....	.....
Seignorage on coins	1.0	1.1	1.1	1.1	1.1	1.1	1.1
Less: Net financing disbursements:							
Direct loan financing accounts	-14.8	-16.4	-19.4	-14.6	-19.8	-20.2	-21.1
Guaranteed loan financing accounts	-1.5	1.3	1.2	0.2	1.7	1.9	1.9
Total, means of financing other than borrowing	-58.8	-26.1	9.1	-12.2	-15.6	-15.9	-16.7
Decrease or increase (-) in Federal debt held by Federal funds	-9.6	-31.1	-29.8	-32.0	-33.0	-34.9	-37.0
Increase or decrease (-) in Federal debt not subject to limit	0.1	-15.7	-0.2	-0.4	-0.1	-0.5	-0.6
Total, requirement for Federal funds borrowing subject to debt limit	428.4	569.3	569.0	517.2	516.0	504.6	530.7
Adjustment for change in discount and premium ⁴	0.2	.....	.....	.....	.....	.....	.....
Increase in debt subject to limit	428.6	569.3	569.0	517.2	516.0	504.6	530.7
ADDENDUM							
Debt subject to statutory limit ⁵	6,161.4	6,730.7	7,299.7	7,816.9	8,332.9	8,837.5	9,368.2

* \$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 bank deposits that Treasury mainly uses to compensate banks for collecting tax and non-tax receipts under financial agency agreements. The Administration is proposing legislation to replace them with an appropriation in 2004.

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 statutory debt limit is \$6,400 billion.

poning normal auctions at the end of June. Congress raised the debt limit to \$6,400 billion on June 28, the President signed the bill on the same day, and Treasury restored the lost interest to the G-fund and Civil Service fund and invested them fully.

The debt subject to limit is now approaching the new ceiling. Treasury wrote Congress on December 24, 2002, that the debt subject to limit may reach the ceiling in the latter half of February 2003. An increase in the debt limit will be necessary to permit the Federal Government to meet its obligations to borrow the additional cash needed to pay bills as they come due, and to invest the surpluses of trust funds and other Government accounts in Treasury securities as required by law.

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 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 its rule for 1980 and it was used a number of times, but in recent years it was not included in the rules.

Federal funds financing and the change in debt subject to limit.—The change in debt held by the public, as shown in table 13–2, 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 13–2. 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 more than half of the estimated total increase from 2002 through 2008.

The budget is composed of two groups of funds, Federal funds and trust funds. The Federal funds, in the main, are derived from tax receipts and borrowing and are used for the general purposes of the Government. The trust funds, on the other hand, are financed by

taxes or other collections earmarked by law for specified purposes, such as paying Social Security benefits or making grants to state governments for highway construction.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 in past years for reasons other than financing 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 13–5 derives the change in debt subject to limit. In 2002 the Federal funds deficit was \$360 billion, and other factors increased the requirement to borrow subject to limit by \$68 billion. The largest of these other factors were the increase in Treasury operating cash balance (\$17 billion), the increase in compensating balances (\$14 billion), and the net financing disbursements of the direct loan financing accounts (\$15 billion). As explained in an earlier section, 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 a net result of all these factors, debt subject to limit increased by \$429 billion, while debt held by the public increased by \$221 billion.

The debt subject to limit is estimated to increase to \$6,731 billion by the end of 2003, which is much more than the present statutory limit of \$6,400 billion. This is caused by a sharp rise in the Federal funds deficit, supplemented by the other factors shown in table 13–5. Some are large, especially the higher investment by Federal funds, which is attributable to the special fund for uniformed services retiree medical care. During subsequent years this fund continues to have large surpluses, and other factors add to the requirement to borrow subject to the debt limit. As a result, while debt held by the public increases by \$1,463 billion during 2003–08, debt subject to limit increases by \$3,207 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 13–6, foreign holdings were just over \$10.0 billion, less than 5 percent of the total Federal debt held by the public.

¹² For further discussion of the trust funds and Federal funds groups, see chapter 16, "Trust Funds and Federal Funds."

Table 13-6. 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	3,540.4	1,134.1	32.0	220.8	128.6

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; and reduced the estimated holdings as of December 1994 and March 2000. As a result, the data on foreign holdings in different time periods are not strictly comparable, and the change in debt from foreign residents in 1979, 1985, 1990, 1995 and 2000 reflects the benchmark revision as well as the net purchase of Federal debt securities. 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 years reflects these revisions as well as the net purchases of Federal securities. Borrowing is therefore not shown in these years.

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 fiscal year 2002 foreign holdings of Treasury debt were \$1,134 billion, which was 32 percent of the total debt held by the public.¹³ Foreign central banks owned 60 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 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

¹³ The amounts of debt reported by the Bureau of Economic Analysis, Department of Commerce, are different, but similar in size, due to a different method of valuing the securities.

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. Since then, the changes in foreign debt holdings have been much smaller, and the proportion of Federal debt held by foreign residents was 32 percent at the end of 2002.

Foreign holdings of Federal debt are around 12 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 de-

posits 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 9, "Credit and Insurance." Detailed data are presented in tables at the end of that chapter. Tables 9-11 and 9-12 summarize GSE borrowing and lending.

¹⁴ Table 13-6 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.