

April 8, 2004

Honorable Richard C. Shelby
Chairman
Committee on Banking, Housing,
and Urban Affairs
United States Senate
Washington, D.C. 20510

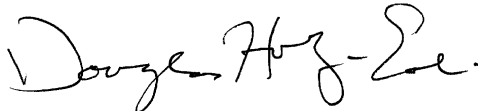
Dear Mr. Chairman:

I am pleased to send you the attachment, *Updated Estimates of the Subsidies to the Housing GSEs*. The primary authors are Deborah Lucas and David Torregrosa.

The estimates of the subsidies received by the government-sponsored enterprises and passed through to borrowers in the mortgage market are based on CBO's May 2001 study *Federal Subsidies and the Housing GSEs*. In keeping with CBO's mandate to provide objective and impartial analysis, the attached analysis includes no recommendations.

If you have any questions concerning the analysis, please let me know. Your staff may also contact David Torregrosa directly at (202) 225-6926.

Sincerely,



Douglas Holtz-Eakin

Attachment

cc: Honorable Paul S. Sarbanes
Ranking Member

Honorable Michael G. Oxley
Chairman, House Committee on Financial Services

Honorable Barney Frank
Ranking Member, House Committee on Financial Services

Updated Estimates of the Subsidies to the Housing GSEs

April 8, 2004

Congress of the United States
Congressional Budget Office

The Congressional Budget Office (CBO) estimates that the total federal subsidy to the three housing government-sponsored enterprises (GSEs) rose to \$23 billion in 2003, an increase of nearly 70 percent over the \$13.6 billion in 2000 that CBO reported in its May 2001 study.¹ That jump in the value of the subsidy stems from the enterprises' rapid expansion during 2001. Those estimates are based on the assumption that any increase in the GSEs' outstanding debt and mortgage-backed securities (MBSs) are sustained only until the acquired mortgages mature. Under an alternative assumption that the GSEs' issued debt and MBSs are reissued when they mature, the federal subsidy for 2003 would be over \$46 billion, up from about \$20 billion in 2000. CBO's current analysis, which relies on the same methodology used for its earlier study, comes to essentially the same conclusions as a recent study by a Federal Reserve economist: the GSEs receive substantial subsidies and a significant portion of them is not passed through to borrowers.²

Estimating the Subsidy

The value of the total subsidy represents the capitalized value of interest savings on newly originated securities in the year. Figure 1 shows the subsidy in the base case, and Table 1 shows the component sources of the subsidy.³ The increase in the estimated subsidy over the past three years can be traced to growth in debt and MBSs, an increase in the value of the state and local tax exemptions, and a decline in discount rates (see Table 2).⁴

CBO's base case assumes that mortgages purchased by GSEs and the securities that they issue to finance them have an average life of seven years (more precisely, 275 percent prepayment standard assumption).⁵ That span is longer than the average realized life of mortgages originated in the mid-1990s because of the refinancing boom that followed as homeowners took advantage of the sharp drop in mortgage rates. (Fannie Mae expects mortgages on its books to "run off" in

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1. Congressional Budget Office, *Federal Subsidies and the Housing GSEs* (May 2001).
 2. Wayne Passmore, *The GSE Implicit Subsidy and the Value of Government Ambiguity*, Finance and Economic Discussion Series No. 2003-64 (Board of Governors of the Federal Reserve System, December 2003).
 3. CBO estimates that the subsidy is 41 basis points (a basis point is one-hundredth of a percentage point) on debt and 30 basis points on mortgage-backed securities. The subsidy is the spread between the rates on the enterprises' securities and those originated by financial firms with comparable credit ratings. Those spreads vary with market conditions, so the point estimates are intended to be "normal" average values.
 4. The discount rates used in these calculations are the cost of funds to the enterprises.
 5. The industry standard is to quote prepayment speeds as a percentage of the prepayment standard assumption (PSA), with 100 percent PSA indicating a prepayment rate starting at 0.2 percent and increasing 0.2 percent per month for the first 30 months. See Bond Market Association, *Research Quarterly* (August 2003), p. 11.

three years.)⁶ Nevertheless, the assumption of a more normal prepayment rate appears reasonable going forward; further drops in interest rates large enough to precipitate another refinancing wave seem unlikely.

If this year's growth in outstanding debt and MBSs is assumed to be sustained, which implies only that this year's new security issues will be reissued when they mature—the level of the subsidy in 2003 doubles (see Figure 2 and Table 3). The GSEs' outstanding securities and assets have consistently shown year-over-year increases in recent decades, which suggests that the assumption of sustained growth in debt and assets is a reasonable one.

Estimating the Subsidies by Recipient

CBO's May 2001 study also estimated the share of the subsidy that accrued to borrowers of conforming mortgages, which have an original principal of no more than a ceiling that currently is \$333,700 for a single-family property, and the share retained by the GSEs and their stakeholders. A key to those estimates is the finding that Fannie Mae and Freddie Mac passed through 25 basis points of the subsidy to borrowers in conforming mortgage markets.⁷ In 2003, those borrowers received \$13.6 billion, or nearly 60 percent of the total amount of the subsidy. Fannie Mae and Freddie Mac retained \$6.3 billion, or a third of the subsidy that they received (see Tables 4 and 5).⁸ The total subsidy and the retained portion was larger on the debt that Fannie Mae and Freddie Mac issued to finance their holdings of mortgage assets than on the MBSs that they guaranteed. Although Fannie Mae and Freddie Mac have grown rapidly since 2000, their mortgage portfolios remain about 40 percent of their total outstanding debt and MBSs (see Table 6).

6. Personal communication to the Congressional Budget Office by a staff member of Fannie Mae, March 10, 2004.

7. That pass-through rate measures the spread in rates between the markets for conforming mortgages and jumbo mortgages (those above the ceiling for conforming mortgages) with a small adjustment (a 3-basis-point increase) to account for the possibility that the Federal Home Loan Banks' activities may lower rates in the jumbo market. The methodology for estimating what portion of the subsidy the FHLBs pass through to borrowers in the conforming market requires making assumptions about how much business member institutions devote to the conforming mortgage market, as opposed to other types of commercial and personal loans.

8. Those estimates do not account for the value of the state and local income tax exemptions to Freddie Mac in 2003. Freddie Mac has not released its financial data for 2003—no quarterly reports to investors, though information on new issues of debt and MBSs is available. Because of that omission, the percentage of the subsidy retained by Fannie Mae and Freddie Mac is somewhat understated. CBO assumes that the state and local income tax exemptions are 8 percent of income. In addition, the subsidy estimate for the FHLBs in 2003 is based on debt issues through September 31, 2003.

The Federal Home Loan Banks (FHLBs) received \$3.4 billion in subsidies in 2003. CBO assumes that the subsidy is passed through to conforming mortgage borrowers in proportion to member banks' conforming mortgage lending as a share of their assets. The remainder, CBO assumes, is passed through to other stakeholders, including borrowers in the jumbo mortgage market and other customers of member institutions.

The Composition of Growth

Two significant changes in the growth of the housing GSEs have occurred recently. Freddie Mac's outstanding MBSs have been level, and the enterprise has lost some market share to Fannie Mae in 2003 (see Figure 3). That change helps explain why Freddie Mac's subsidy fell in 2003. Also, although the FHLBs' outstanding debt rose from \$591 billion at the end of 2000 to \$717 billion as of September 31, 2002, its growth slowed (see Figure 4).

Comparison with a Recent Study

An economist at the Federal Reserve recently estimated that the present value of Fannie Mae's and Freddie Mac's gross subsidy is between \$119 billion and \$164 billion and that the enterprises retain between \$50 billion and \$97 billion.⁹ While the gross estimates differ, CBO's and Wayne Passmore's results are generally consistent. Passmore's study capitalizes the benefit to the GSEs on all outstanding debt and MBSs, whereas CBO's capitalizes the benefit on the incremental change in outstanding issues for the current year. That difference—the value of the stock rather than the change in the value, or the flow—is the principal reason that Passmore's estimate of the gross subsidy is higher. He also estimates the subsidy pass-through to be much lower—7 basis points versus the 25 basis points used by CBO.¹⁰ He employs a two-step process to reach the lower value. The first step estimates the spread between jumbo and conforming mortgages and finds that difference to be 15 basis points to 18 basis points. (That step uses a methodology similar to CBO's but extends the observation period to May 2003.) The second step attempts to take account of factors other than the GSEs' sponsored status that affect the spread between conforming and jumbo mortgages, including differences in transaction cost, credit risk, and prepayment risk.

In sum, both CBO and Passmore conclude that the housing GSEs receive large subsidies and that only a portion of those subsidies reach borrowers in the conforming market.

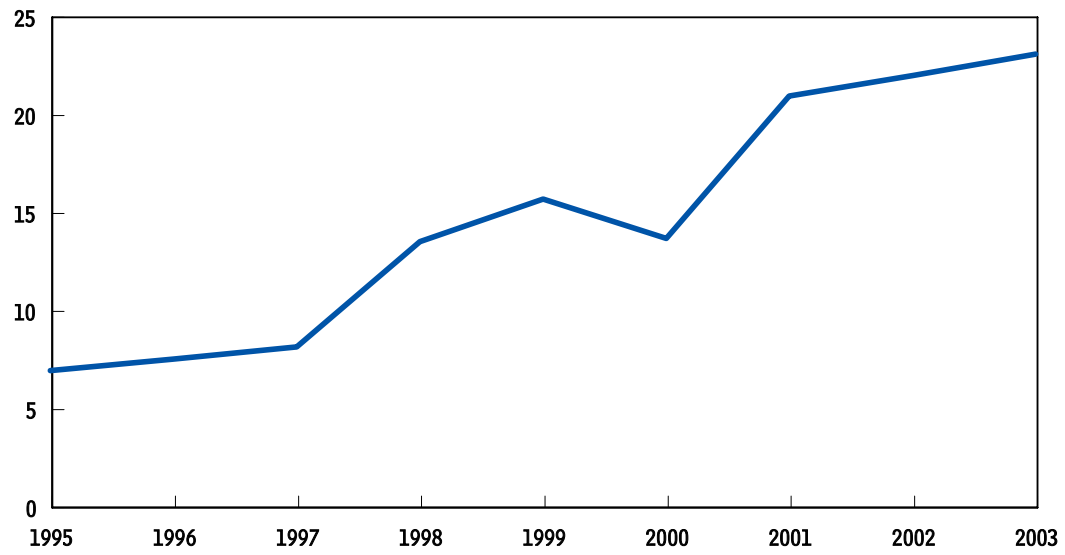
9. Passmore, *The GSE Implicit Subsidy*, p. 4.

10. Congressional Budget Office, *Interest Rate Differentials Between Jumbo and Conforming Mortgages, 1995-2000* (May 2001).

Figure 1.

Total Federal Subsidy to the Housing GSEs, 1995 to 2003

(Billions of dollars)



Source: Congressional Budget Office.

Table 1.**Federal Subsidies to the Housing GSEs, 1995 to 2003**

(Billions of dollars)

	Debt	MBSs	Other^a	Total
1995	3.7	2.5	0.7	6.9
1996	3.7	3.0	0.8	7.5
1997	4.5	2.8	0.8	8.1
1998	9.1	3.4	1.0	13.5
1999	10.2	4.2	1.2	15.6
2000	8.8	3.6	1.2	13.6
2001	12.2	7.0	1.7	20.9
2002	11.5	8.2	2.2 _b	21.9 _b
2003	12.5	9.2	1.3	23.0

Source: Congressional Budget Office.

Notes: Numbers in the table may not add up to totals because of rounding.

MBSs = mortgage-backed securities.

- a. "Other" includes the value of state and local income tax exemptions and the exemption from registration fees by the Securities and Exchange Commission.
- b. Excludes the value of Freddie Mac's state and local income tax exemptions for 2003, which cannot be estimated because the enterprise has not released its financial statements that year.

Table 2.

The Annual Value of Tax and Regulatory Exemptions for the Housing GSEs, 2000 to 2003

(Millions of dollars)

	2000	2001	2002	2003
Fannie Mae				
State and Local Taxes	479	635	484	848
SEC Registration	85	175	134	144
Rating Fees	<u>13</u>	<u>13</u>	<u>13</u>	<u>13</u>
Subtotal	576	823	631	1,005
Freddie Mac				
State and Local Taxes	283	360	1,184	a
SEC Registration	67	170	117	85
Rating Fees	<u>13</u>	<u>13</u>	<u>13</u>	<u>13</u> ^a
Subtotal	362	542	1,314	98
FHLBs				
State and Local Taxes	177	232	196	181
SEC Registration	50	104	56	35
Rating Fees	<u>13</u>	<u>13</u>	<u>13</u>	<u>13</u>
Subtotal	240	349	265	228
All Housing GSEs				
Total^a	1,178	1,714	2,209	1,330

Source: Congressional Budget Office.

Notes: SEC = Securities and Exchange Commission; FHLBs = Federal Home Loan Banks.

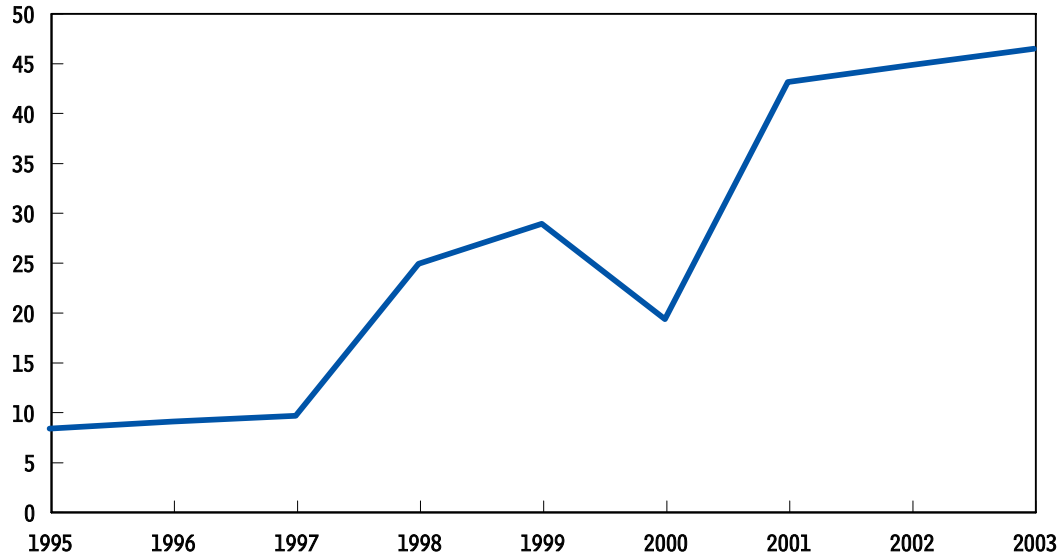
Numbers in the table may not add up to totals because of rounding.

a. The value of Freddie Mac's 2003 state and local income tax exemptions cannot be estimated because the enterprise has not yet released its financial statements for that year.

Figure 2.

Total Federal Subsidy to the Housing GSEs Under an Assumption of Sustained Growth, 1995 to 2003

(Billions of dollars)



Source: Congressional Budget Office.

Note: This figure reflects a “perpetual horizon.” Under that assumption, this year’s growth in the GSEs’ outstanding debt and mortgage-backed securities is sustained; that is, this year’s new security issues will be reissued when they mature.

Table 3.

Federal Subsidies to the Housing GSEs Under an Assumption of Sustained Growth, 2000 to 2003

(Billions of dollars)

	2000	2001	2002	2003
Subsidies by GSE and by Source				
Fannie Mae				
Debt	6.2	10.7	8.8	11.1
Mortgage-backed securities	1.3	9.9	12.5	19.9
Tax and regulatory exemptions	<u>0.6</u>	<u>0.8</u>	<u>0.6</u>	<u>1.0</u>
Subtotal	8.1	21.4	21.9	32.0
Freddie Mac				
Debt	4.3	13.3	8.8	7.9
Mortgage-backed securities	1.8	4.6	7.1	1.7
Tax and regulatory exemptions	<u>0.4</u>	<u>0.5</u>	<u>1.3</u>	<u>0.1</u> ^a
Subtotal	6.5	18.4	17.2	9.7
FHLBs				
Debt	4.3	2.7	5.3	4.3
Tax and regulatory exemptions	<u>0.2</u>	<u>0.3</u>	<u>0.3</u>	<u>0.2</u>
Subtotal	4.5	3.0	5.6	4.5
Total^a	19.1	43.0	44.7	46.3
Subsidies by Beneficiary				
Conforming mortgage borrowers	9.4	27.0	27.5	30.0
Fannie Mae and Freddie Mac ^a	5.6	13.2	12.1	12.1
FHLB stakeholders ^b	<u>4.1</u>	<u>2.8</u>	<u>5.1</u>	<u>4.2</u>
Total	19.1	43.0	44.7	46.3

Source: Congressional Budget Office.

Notes: FHLBs = Federal Home Loan Banks. Numbers in the table may not add up to totals because of rounding.

This table reflects a “perpetual horizon.” Under that assumption, this year’s growth in the GSEs’ outstanding debt and mortgage-backed securities is sustained; that is, this year’s new security issues will be reissued when they mature.

The subsidies to the GSEs’ debt and mortgage-backed securities are present values over a perpetual horizon. The annual savings from tax and regulatory exemptions are for the current year only.

- a. Excludes the value of Freddie Mac’s state and local income tax exemptions for 2003, which cannot be estimated because the enterprise has not released its financial statements for that year.
- b. The estimates assume that conforming mortgages, which are for amounts less than a ceiling that is currently \$333,700 a for single-family property, financed by FHLB members were a constant share of members’ portfolios from 2000 to 2003.

Table 4.

**Federal Subsidies to the Housing GSEs, by Recipient,
1995 to 2003**

(Billions of dollars)

	Borrowers	Fannie Mae and Freddie Mac	FHLB Stakeholders	Total
1995	3.7	1.8	1.3	6.9
1996	4.1	2.2	1.1	7.5
1997	4.0	2.1	2.0	8.1
1998	7.0	3.9	2.6	13.5
1999	7.4	3.9	4.3	15.6
2000	7.0	3.9	2.7	13.6
2001	12.0	6.3	2.5	20.9
2002	12.2	6.5	3.3	21.9
2003	13.6	6.2 ^a	3.2	23.0 ^a

Source: Congressional Budget Office.

Note: Numbers in the table may not add up to totals because of rounding.

- a. Excludes the value of Freddie Mac's state and local income tax exemptions for 2003, which cannot be estimated because the enterprise has not released its financial statements for that year.
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Table 5.**Federal Subsidies to the Housing GSEs, 2000 to 2003**

(Billions of dollars)

	2000	2001	2002	2003
Subsidies by GSE and by Source				
Fannie Mae				
Debt	3.6	4.8	4.4	5.4
Mortgage-backed securities	1.9	4.4	5.0	7.2
Tax and regulatory exemptions	<u>0.6</u>	<u>0.8</u>	<u>0.6</u>	<u>1.0</u>
Subtotal	6.1	10.0	10.0	13.6
Freddie Mac				
Debt	2.4	5.0	3.8	3.9
Mortgage-backed securities	1.8	2.6	3.2	2.0 ^a
Tax and regulatory exemptions	<u>0.4</u>	<u>0.5</u>	<u>1.3</u>	<u>0.1^a</u>
Subtotal	4.6	8.1	8.3	6.0
FHLBs				
Debt	2.8	2.4	3.3	3.2
Tax and regulatory exemptions	<u>0.2</u>	<u>0.3</u>	<u>0.3</u>	<u>0.2</u>
Subtotal	3.0	2.7	3.6	3.4
Total	13.6	20.9	21.9	23.0^a
Subsidies by Recipient				
Conforming mortgage borrowers	7.0	12.0	12.2	13.6
Fannie Mae and Freddie Mac	3.9	6.3	6.5	6.2 ^a
FHLB stakeholders ^b	<u>2.7</u>	<u>2.5</u>	<u>3.3</u>	<u>3.2</u>
Total	13.6	20.9	21.9	23.0^a

Source: Congressional Budget Office.

Notes: FHLBs = Federal Home Loan Banks.

Numbers in the table may not add up to totals because of rounding.

The subsidies to GSEs' debt and mortgage-backed securities are present values. The annual savings from tax and regulatory exemptions are for the current year only.

- a. Excludes the value of Freddie Mac's state and local income tax exemptions for 2003, which cannot be estimated because the enterprise has not released its financial statements that year.
- b. The estimates assume that conforming mortgages, which are for amounts less than a ceiling that is currently \$333,700 a for single-family property, financed by FHLB members were a constant share of members' portfolios from 2000 to 2003.

Table 6.

The Housing GSEs' Mortgage Portfolios Expressed as a Share of Their Outstanding Debt and Mortgage-Backed Securities, Year-End 1990 and 2003

	Fannie Mae Retained Mortgage Portfolio as a Share of Debt and MBSs ^a	Freddie Mac Retained Mortgage Portfolio as a Share of Debt and MBSs ^a	Federal Home Loan Banks Net Mortgage Loans as a Share of Debt ^b	GSEs' Total Assets (Billions of dollars)
1990	27.7	6.2	n.a.	339.4
1991	25.9	6.9	n.a.	348.6
1992	26.5	7.7	n.a.	402.6
1993	28.3	11.4	n.a.	479.8
1994	29.7	13.2	n.a.	617.8
1995	31.1	18.6	n.a.	726.5
1996	32.6	21.9	n.a.	816.9
1997	33.4	25.4	0	939.9
1998	37.9	33.4	0.3	1,240.5
1999	42.6	35.9	0.4	1,345.2
2000	45.0	38.4	2.7	1,788.2
2001	43.5	41.1	4.4	2,138.1
2002	42.4	41.9	9.0	2,403.3
2003	39.9	42.5	15.3	c

Source: Congressional Budget Office based on data from the Department of Housing and Urban Development's Office of Federal Housing Enterprise Oversight and the Federal Home Loan Banks' Office of Finance, Fannie Mae, and Freddie Mac.

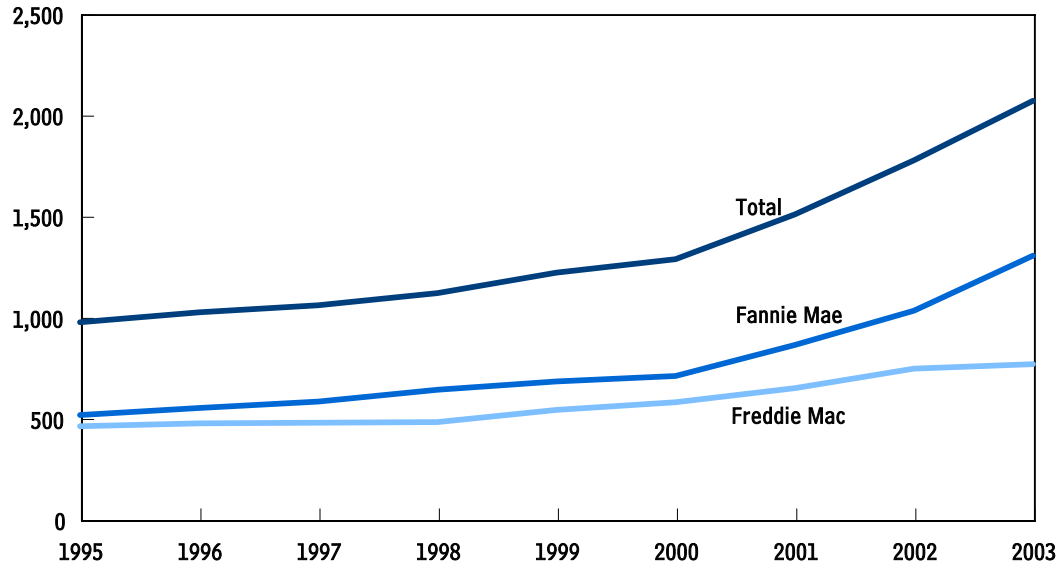
Note: n.a. = not applicable; MBSs = mortgage-backed securities.

- a. Excludes an enterprise's own MBSs held in its portfolio.
 - b. The Federal Home Loan Banks started their mortgage loan programs in 1997 with \$37 million in loans.
 - c. Unknown. Freddie Mac has not yet released audited financial statements for 2003 but did release information on its debt, MBSs, and retained portfolio at the end of 2003. Fannie Mae's assets totaled \$1,009.6 billion, and the Federal Home Loan Banks' assets were \$822.8 billion.
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Figure 3.

Fannie Mae and Freddie Mac's Outstanding Mortgage-Backed Securities, 1995 to 2003

(Billions of dollars)

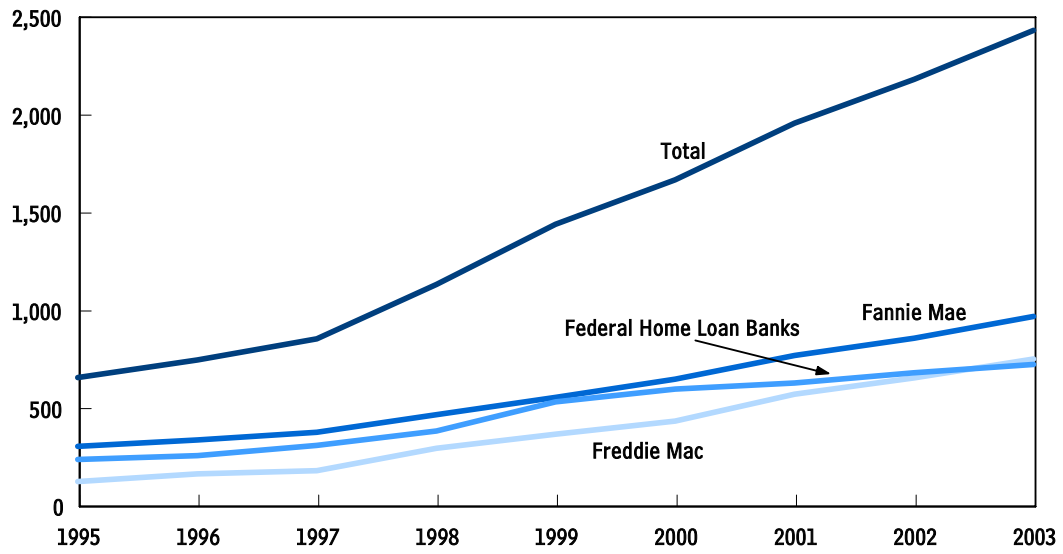


Source: Congressional Budget Office.

Figure 4.

The Housing GSEs' Outstanding Debt, 1995 to 2003

(Billions of dollars)



Source: Congressional Budget Office.
