Report of

THE SECRETARY OF THE TREASURY

on

GOVERNMENT-SPONSORED ENTERPRISES

April 1991

THE SECRETARY OF THE TREASURY
WASHINGTON

April 29, 1991

The Honorable J. Danforth Quayle
President of the Senate
United States Senate
Washington, D.C. 20510

Dear Mr. President:

I am pleased to transmit the April 1991 Report of the Secretary of the Treasury on Government-sponsored Enterprises. This Report has been prepared to meet the statutory requirements in section 1404 of the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA)(Pub. L. No. 101-73) and in section 13501 of the Omnibus Budget Reconciliation Act of 1990 (OBRA)(Pub. L. No. 101-508).

FIRREA requires the Treasury to assess in two annual studies the financial safety and soundness of the GSEs and to study the impact of GSE operations on Federal borrowing. The Treasury submitted the first annual report under FIRREA in May 1990. OBRA requires the Treasury to assess the financial soundness of GSEs, the adequacy of the existing regulatory structure for GSEs, the financial exposure of the Federal Government posed by GSEs, and the effects of GSE activities on Treasury borrowing.

The enclosed study, which is intended to meet the requirements of FIRREA and OBRA, presents principles that are essential to effective financial safety and soundness regulation. It also includes an analysis of the financial condition of the GSEs performed by the Standard & Poor's Corporation, and updates the findings in the 1990 Report regarding the impact of GSE activities on Treasury borrowing. We will submit proposed legislation shortly implementing the recommendations in this study to authorize Federal regulation of the financial safety and soundness of the GSEs.

I am also transmitting the Report to the Speaker of the House of Representatives.

Sincerely,

Nicholas F. Brady

Nicholas F. Brady

Enclosure

THE SECRETARY OF THE TREASURY
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April 29, 1991

The Honorable Thomas S. Foley
Speaker of the House
House of Representatives
Washington, D.C. 20515

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EXCERPT FROM THE FINANCIAL INSTITUTIONS REFORM RECOVERY AND ENFORCEMENT ACT OF 1989 PUBLIC LAW NO. 101-73

Section 1404. Studies of Relationship Between Public Debt and Activities of Government-sponsored Enterprises.

(a) In General. In order to better manage the bonded indebtedness of the United States, the Secretary shall conduct 2 annual studies to assess the financial safety and soundness of the activities of all Government-sponsored enterprises and the impact of their operations on Federal borrowing.

(b) Access to Relevant Information.

(1) Information from GSE's. Each Government-sponsored enterprise shall provide full and prompt access to the Secretary to its books and records, and shall promptly provide any other information requested by the Secretary.

(2) Information from Supervisory Agencies. In conducting the studies under this section, the Secretary may request information from, or the assistance of, any Federal department or agency authorized by law to supervise the activities of any Government-sponsored enterprise.

(3) Confidentiality of Information.

(A) In General. The Secretary shall determine and maintain the confidentiality of any book, record, or information made available under this subsection in a manner generally consistent with the level of confidentiality established for the material by the Government-sponsored enterprise involved.

(B) Exemption from Public Disclosure Requirements. The Department of the Treasury shall be exempt from section 552 of title 5, United States Code, with respect to any book, record, or information made available under this subsection and determined by the Secretary to be confidential under subparagraph (A).

(C) Penalty for Unauthorized Disclosure. Any officer or employee of the Department of the Treasury shall be subject to the penalties set forth in section 1906 of title 18, United States Code, if--

(i) by virtue of his employment or official position, he has possession of or access to any book, record, or information made available under this subsection and determined by the Secretary to be confidential under paragraph (A); and

(ii) he discloses the material in any manner other than--

(I) to an officer or employee of the Department of the Treasury; or

(II) pursuant to the exceptions set forth in such section 1906.

(c) Assessment of Risk. In assessing the financial safety and soundness of the activities of Government-sponsored enterprises, and the impact of their activities on Federal borrowing, the Secretary shall quantify the risks associated with each Government-sponsored enterprise. In quantifying such risks, the Secretary shall determine the volume and type of securities outstanding which are issued or guaranteed by each Government-sponsored enterprise, the capitalization of each Government-sponsored enterprise, and the degree of risk involved in the operations of each Government-sponsored enterprise due to factors such as credit risk, interest rate risk, management and operations risk, and business risk. The Secretary shall also report on the quality and timeliness of information currently available to the public and the Federal Government concerning the extent and nature of the activities of Government-sponsored enterprises and the financial risk associated with such activities.

(d) Reports to Congress. The Secretary shall submit to the Congress--

(1) by May 15, 1990, a report setting forth the results of the 1st annual study conducted under this section; and

(2) by May 15, 1991, a report setting forth the results of the 2nd annual study conducted under this section.

(e) Definitions. For purposes of this section:

(1) Government-sponsored Enterprise. The term "Government-sponsored enterprise" means--

(A) the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Federal Home Loan Bank System, the Farm Credit Banks, the Banks for Cooperatives, the Federal Agricultural Mortgage Corporation, the Student Loan Marketing Association, the College Construction Loan Insurance Association, and any of their affiliated or member institutions; and

(B) any other Government-sponsored enterprise, as designated by the Secretary.

(2) Secretary. The term "Secretary" means the Secretary of the Treasury or his delegate.

EXCERPT FROM THE OMNIBUS BUDGET RECONCILIATION ACT OF 1990 PUBLIC LAW NO. 101-508

Section 13501. Financial Safety and Soundness of Government-sponsored Enterprises.

(a) Definition. For purposes of this section, the terms "Government-sponsored enterprises" and "GSE" mean the Farm Credit System (including the Farm Credit Banks, Banks for Cooperatives, and Federal Agricultural Mortgage Corporation), the Federal Home Loan Bank System, the Federal Home Loan Mortgage Corporation, the Federal National Mortgage Association, and the Student Loan Marketing Association.

(b) Treasury Department Study and Proposed Legislation.

(1) The Department of the Treasury shall prepare and submit to Congress no later than April 30, 1991, a study of GSEs and recommended legislation.

(2) The study shall include an objective assessment of the financial soundness of GSEs, the adequacy of the existing regulatory structure for GSEs, the financial exposure of the Federal Government posed by GSEs, and the effects of GSE activities on Treasury borrowing.

(c) Congressional Budget Office Study.

(1) The Congressional Budget Office shall prepare and submit to Congress no later than April 30, 1991, a study of GSEs.

(2) The study shall include an analysis of the financial risks each GSE assumes, how Congress may improve its understanding of those risks, the supervision and regulation of GSEs' risk management, the financial exposure of the Federal Government posed by GSEs, and the effects of GSE activities on Treasury borrowing. The study shall also include an analysis of alternative models for oversight of GSEs and of the costs and benefits of each alternative model to the Government and the markets and beneficiaries served by GSEs.

(d) Access to Relevant Information.

(1) For the studies required by this section, each GSE shall provide full and prompt access to the Secretary of the Treasury and the Director of the Congressional Budget Office to its books and records and other information requested by the Secretary of the Treasury or the Director of the Congressional Budget Office.

(2) In preparing the studies required by this section, the Secretary of the Treasury and the Director of the Congressional Budget Office may request information from, or the assistance of, any Federal department or agency authorized by law to supervise the activities of a GSE.

(e) Confidentiality of Relevant Information.

(1) The Secretary of the Treasury and the Director of the Congressional Budget Office shall determine and maintain the confidentiality of any book, record, or information made available by a GSE under this section in a manner consistent with the level of confidentiality established for the material by the GSE involved.

(2) The Department of the Treasury shall be exempt from section 552, of title 5, United States Code, for any book, record, or information made available under subsection (d) and determined by the Secretary of the Treasury to be confidential under this subsection.

(3) Any officer or employee of the Department of the Treasury shall be subject to the penalties set forth in section 1906 of title 18, United States Code, if--

> **(A)** by virtue of his or her employment or official position, he or she has possession of or access to any book, record, or information made available under and determined to be confidential under this section; and
>
> **(B)** he or she discloses the material in any manner other than--
>
> > **(i)** to an officer or employee of the Department of the Treasury; or
> >
> > **(ii)** pursuant to the exception set forth in such section 1906.

(4) The Congressional Budget Office shall be exempt from section 203 of the Congressional Budget Act of 1974 with respect to any book, record, or information made available under this subsection and determined by the Director to be confidential under paragraph (1).

(f) Requirement to Report Legislation.

(1) The committees of jurisdiction in the House shall prepare and report to the House no later than September 15, 1991, legislation to ensure the financial soundness of GSEs and to minimize the possibility that a GSE might require future assistance from the Government.

(2) It is the sense of the Senate that the committees of jurisdiction in the Senate shall prepare and report to the Senate no later than September 15, 1991, legislation to ensure the financial safety and soundness of GSEs and to minimize the possibility that a GSE might require future assistance from the Government.

(g) President's Budget. The President's annual budget submission shall include an analysis of the financial condition of the GSEs and the financial exposure of the Government, if any, posed by GSEs.

PREFACE

The failure of many federally insured thrift institutions in the 1980s, and the massive Federal funding required for their resolution, have focused the attention of the Administration and Congress on other areas of taxpayer exposure to financial risk. With this concern in mind, Congress enacted legislation requiring the Secretary of the Treasury to study and make recommendations regarding the financial safety and soundness of Government-sponsored enterprises (GSEs).

TREASURY STUDY REQUIREMENTS

FIRREA

The Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA) requires the Secretary to "conduct two annual studies to assess the financial safety and soundness of the activities of all Government-sponsored enterprises and the impact of their operations on Federal borrowing."[1] The first of these studies was submitted to Congress on May 31, 1990, while the second is due on May 15, 1991.

The May 1990 Report of the Secretary of the Treasury on Government Sponsored Enterprises (1990 Report) fulfilled the statutory requirements set out in FIRREA. It discussed the history and development of each GSE and analyzed its financial safety and soundness taking into consideration business risk, credit risk, interest rate risk, and management and operations risk. It analyzed the level of capital of each GSE in relation to the risks it undertakes. It reviewed the timeliness and quality of the financial information that each GSE provides to the public and the Federal Government. Finally, it reported on the impact of GSE activities on Federal borrowing.

OBRA

Release of the 1990 Report resulted in increased focus on the financial condition of the GSEs, the need for reform of their current Federal regulation, and the appropriate structure for regulation. The debate resulted in additional legislation, a provision of the Omnibus Budget Reconciliation Act of 1990 (OBRA), which requires the Secretary of the Treasury to provide "an objective assessment of the financial soundness of GSEs, the adequacy of the existing regulatory structure for GSEs, the

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[1] Subsection 1404(a) of FIRREA.

financial exposure of the Federal Government posed by GSEs, and the effects of GSE activities on Treasury borrowing."[2]

1991 Treasury Study Approach

This 1991 report is designed to meet the study requirements of FIRREA and OBRA. It includes an objective assessment of the financial soundness of the GSEs. In this regard, the Treasury contracted with the Standard & Poor's Corporation (S&P) for an analysis of the financial safety and soundness of the GSEs.[3] S&P has assessed the likelihood that a GSE might not be able to meet its future obligations from its own resources and has expressed that likelihood as a traditional credit rating. This likelihood correlates directly with the risk to the taxpayer that a GSE will become financially troubled and need a Federal Government rescue entailing an expenditure of, or a commitment to spend, taxpayer money.

As required by OBRA, Treasury has analyzed the adequacy of the existing regulatory structure for each of the GSEs and has developed what it considers to be the essential principles of effective financial safety and soundness regulation.

Finally, Treasury has also updated and expanded upon its findings in the 1990 Report regarding the impact of GSE activities on Treasury borrowing.

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[2] Subsection 13501(b) of OBRA.

[3] S&P was not asked to examine Connie Lee, because S&P has rated the claims-paying ability of Connie Lee as triple A on a stand-alone basis, nor Farmer Mac, since it has not yet become fully operational.

EXECUTIVE SUMMARY

The Need for Greater Taxpayer Protection from GSE Financial Risk

-- The public missions of the GSEs and the importance of their activities to the U.S. economy have led investors to believe that Congress would rescue a GSE if it were in financial difficulty. As a result, they ignore the usual credit fundamentals of GSEs and look to the Federal Government as the ultimate guarantor of GSE obligations.

-- The concentration of potential taxpayer exposure from GSEs is obvious when compared to the thrift and banking industries. The total of credit market debt plus mortgage pools of the five GSEs included in this study is greater than the total deposits of the more than 2,000 insured S&Ls and about one-third the size of the deposits of the more than 12,000 insured commercial banks.

-- Consequently, the potential taxpayer exposure from GSEs, rather than being dispersed among many thousands of institutions, is dependent upon the managerial abilities of the officers of a relatively small group of entities.

-- Because the GSEs are insulated from the private market discipline applicable to other privately owned firms, more effective Government regulation is needed to provide sustained outside discipline to these entities.

Effective Financial Safety and Soundness Regulation

-- Treasury has developed regulatory principles that will reduce the likelihood of another financially painful Government rescue.

-- Any regulatory framework should embody the following principles:

  - Financial safety and soundness should be given primacy over other public policy considerations in GSE regulation.

  - The regulator must have sufficient stature to avoid capture by the GSEs or special interests.

  - Private market risk assessment mechanisms can be used to help the regulator assess the financial safety and soundness of the GSEs.

-- The basic statutory authorities for financial safety and soundness regulation should be consistent across all GSEs. In this regard, the regulator should have the authority to set capital standards; require financial disclosure; prescribe, if necessary, adequate standards for books and records and other internal controls; conduct examinations; and enforce compliance with the rules and standards which it establishes.

Adequacy of Existing Regulatory Structure for GSEs

-- The regulatory structure for the GSEs has lapses of varying degrees when compared to the proposed regulatory principles.

-- It would be beneficial to make the scope of HUD's regulatory authorities more explicit. HUD has proposed new regulations to deal with specific aspects of its general regulatory authority. Safety and soundness oversight should be given primary consideration in HUD's regulatory role.

-- The Federal Housing Finance Board has the necessary regulatory authorities and the stature needed to regulate effectively the financial safety and soundness of the Federal Home Loan Banks.

-- The primary focus of the Farm Credit Administration is on the financial safety and soundness of the Farm Credit System and Farmer Mac. Consequently, it has all of the necessary regulatory authorities and the stature to be an effective financial safety and soundness regulator of the System. However, the FCA needs to have increased authority over Farmer Mac.

-- Sallie Mae is virtually unregulated. Thus, no Federal agency has the necessary authorities to provide it with effective financial safety and soundness regulation.

Impact of GSE Operations on Treasury Borrowing

-- Major macroeconomic trends that cannot be separated from the impact of GSE financing activities have offset any potential upward pressures on Federal borrowing costs from GSE activity. Accordingly, the available statistical evidence does not show that GSE borrowing has had a direct effect on the cost of Federal borrowing.

S&P Ratings

-- At the Treasury's request, S&P assessed the likelihood that a GSE might not be able to meet its future obligations from its own resources and has expressed that likelihood as a traditional credit rating. The S&P ratings for the GSEs as of April 1991 are:

The Farm Credit System	BB
The Federal Home Loan Bank System	AAA
Freddie Mac	A+
Fannie Mae	A-
Sallie Mae	AAA

These ratings are not intended to supersede the AAA assessments S&P has given the various securities of the GSEs presently trading in the market.

Recommendations

-- <u>Proposed regulatory structure</u>: four regulators with basic statutory authorities

Separate "arms-length" Bureau of HUD

- Financial oversight over Fannie Mae and Freddie Mac through creation of a separate "arms-length" bureau of HUD.

Federal Housing Finance Board

- Retain financial oversight over the FHLBanks.

Farm Credit Administration

- Retain financial oversight over the Farm Credit System and Farmer Mac.

Treasury

- Enhance financial oversight over Sallie Mae.

-- <u>Necessary changes to current structure</u>

HUD

- Safety and soundness oversight of Fannie Mae and Freddie Mac should have primacy over other regulatory goals.

- Transfer responsibility for financial safety and soundness oversight of Fannie Mae and Freddie Mac to a new separate "arms-length" bureau of HUD. The Director of the new bureau will be appointed by the President and confirmed by the Senate, and may be removed only by the President; the Director will operate with the general oversight of, and report directly to, the Secretary of HUD; the bureau should be separately funded through assessments on Fannie Mae and Freddie Mac, as proposed in the President's 1992 Budget; and the bureau will provide an annual report on its operations to Congress.

Federal Housing Finance Board

- Amend the statute to make financial safety and soundness of the FHLBanks the Finance Board's primary regulatory goal.

Farm Credit Administration

- Increase financial oversight over Farmer Mac, particularly with respect to authority to set capital standards.

- Give the Insurance Corporation access to the capital of the associations.

Treasury

- Increase financial oversight over Sallie Mae to make it consistent with the safety and soundness authorities of the other regulators.

-- <u>Proposed capital standards</u>

- The regulator should have the authority to promulgate risk-based capital standards. The standards should take into account the differing risk characteristics of on- and off-balance sheet classes of assets. While risk categories may be established for different lines of business, the overall capital requirement should be for the whole firm.

- The regulator can use stress tests and/or other analytical techniques deemed appropriate by the regulator to determine the necessary amount of capital to protect against credit risk and interest rate risk. An additional amount of capital should be required to protect against management and operations risk and business risk.

- For financially significant new activities, the regulator needs the flexibility to determine in advance how the risks of the activity should be assessed for purposes of the capital requirements.

- The regulator can contract with nationally recognized statistical rating organizations to assess the financial health of the GSEs. If a GSE is rated the highest investment grade, it will be exempt from regulatory capital requirements and the frequency of reports and examinations may be reduced.

- The regulator should ensure achievement of such capital requirements through the use of suitable enforcement powers, including the right at all times to take action in the event the GSE engages in an unsafe and unsound practice.

CHAPTER 1

THE NEED FOR FINANCIAL REGULATION

The Federal charters and other substantial ties to the Government of the GSEs have led to the perception in the securities markets that there is an implied Government guarantee of GSE obligations.[1] The public policy missions of the GSEs, which include financial intermediation in agriculture, housing, and education, the importance of their activities to the U.S. economy, their growing size, and the rescue of the Farm Credit System in the 1980s also have led credit market participants to conclude that the Government would rescue a GSE if it were in financial difficulty.

As a result of the belief that Congress would use taxpayer funds to prevent the failure of a GSE, investors ignore the usual credit fundamentals of the GSEs and look to the Federal Government as the ultimate guarantor of GSE obligations. Therefore, some GSEs are in a position to increase financial leverage virtually unconstrained by the market or by effective oversight. Greater leverage results not only in higher returns for GSE shareholders (see Table 1), but also in potentially greater taxpayer exposure if a GSE experiences financial difficulty.

Table 1

After-Tax Return on Equity
(percent)

	1990	1989	1988	1987
Fannie Mae*	33.9	30.7	24.9	25.1
Freddie Mac*	20.4	25.0	27.6	28.2
Sallie Mae*	27.4	30.5	30.2	27.3
FHLBanks*	11.4	12.0	9.9	10.4
Mortgage bankers**	n.a.	0.0	0.7	5.3
Comm. banks***	7.8	7.8	13.3	2.0
S&P 500	12.0	13.6	14.8	11.8

Source: * - Standard and Poor's.
** - Mortgage Bankers' Association. Estimate for 1989 is the latest available.
*** - FDIC, for FDIC-insured commercial banks.

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[1] For a table presenting GSE links to the Federal Government, see the introduction to the 1990 Report.

Because GSEs are insulated from the private market discipline applicable to other privately owned firms, more effective Government regulation can provide sustained outside discipline to these entities. Providing such discipline is an important public policy goal because mismanagement of the GSEs would pose serious risks to the U.S. economy. Financial insolvency of even one of the major GSEs would strain the U.S. and international financial systems and could result in a taxpayer-funded rescue operation.

Thus, the Government has an interest in establishing effective financial safety and soundness regulation for GSEs to protect the taxpayers' interests more than private market mechanisms have done.

MAGNITUDE AND CONCENTRATION OF GSE ACTIVITY

A look at the magnitude and growth of GSE activity in the financial markets gives an indication of the immense size of their operations. The outstanding obligations of the GSEs, including direct debt and mortgage-backed securities, totaled $981 billion at the end of calendar year 1990 (see Table 2). GSE debt represents almost 90 percent of the outstanding debt of all private domestic financial intermediaries. In 1990, GSE obligations accounted for nearly 14 percent of all funds raised in the credit markets (see Table 3). That represents more than four times the volume of activity of all other private domestic financial intermediaries combined.

The concentration of potential taxpayer exposure with GSEs is obvious when compared to the thrift and banking industries. The total of credit market debt plus mortgage pools of the five GSEs included in this report is greater than the total deposits of the more than 2,000 insured S&Ls and about one-third the size of the deposits of the more than 12,000 insured commercial banks (see Chart 1). Consequently, the Federal Government's potential risk exposure from GSEs, rather than being dispersed across many thousands of institutions, is dependent on the managerial abilities of the officers of a relatively small group of entities.

NO IMMINENT THREAT, BUT CONCERNS NOT HYPOTHETICAL

The Treasury concluded in its last report on GSEs that none of these institutions poses an imminent financial threat. That conclusion has been reaffirmed by the assessment of the financial

Table 2
Outstanding Debt *

($ billions, end of calendar year)

	Annual					
	1980	1986	1987	1988	1989	1990
Business	1,438.1	2,724.8	2,945.5	3,182.2	3,399.9	3,528.2
Financial Intermediaries	291.8	730.4	864.5	990.0	1,078.8	1,103.7
GSEs**	177.2	536.7	655.3	748.1	862.6	981.0
Federal Government						
Treasury (From public)	737.8	1,811.7	1,955.2	2,095.2	2,245.2	2,536.6
Other Federal***	98.9	266.3	322.2	368.9	405.3	467.7
State & local	286.6	510.1	558.9	604.5	634.1	648.8
Foreign	197.2	238.3	244.6	253.9	261.5	284.8
Households	1,430.2	2,596.1	2,879.1	3,191.5	3,501.7	3,834.1
Total Credit Market Borrowing	4,657.8	9,414.4	10,425.3	11,434.3	12,389.1	13,384.9
Memo:						
** GSEs						
Debt Issues						
Fannie Mae	55.2	93.6	97.1	105.5	116.1	123.4
Freddie Mac	4.6	13.4	17.5	24.8	24.1	28.4
FHLBanks	37.3	88.8	116.4	136.5	136.1	117.9
Farm Credit System	63.0	62.3	55.2	54.6	56.6	56.1
Sallie Mae	****	12.2	16.5	22.0	28.6	39.0
Total Debt Issues	160.1	270.3	302.7	343.4	361.5	364.8
Mortgage-backed securities						
Fannie Mae	****	97.2	140.0	178.3	228.2	299.8
Freddie Mac	17.1	169.2	212.6	226.4	272.9	316.4
Total Mortgage-backed	17.1	266.4	352.6	404.7	501.1	616.2
Total GSE	177.2	536.7	655.3	748.1	862.6	981.0
*** Other Federal						
Fed Agency	5.0	3.6	5.2	22.6	24.2	32.4
GNMA Mortgage Pools	93.9	262.7	315.8	340.5	368.4	404.1
FICO & REFCORP	****	0.0	1.2	5.8	12.7	31.2
Total Other	98.9	266.3	322.2	368.9	405.3	467.7

Sources: Federal Reserve Board Flow-of-Funds data; GSE balance sheets.

* Changes in outstandings will not necessarily be equal to flows reported by the Federal Reserve Board due to changes in universe coverage and changes in accounting (valuation) methods.

Table 3
Net Market Borrowing

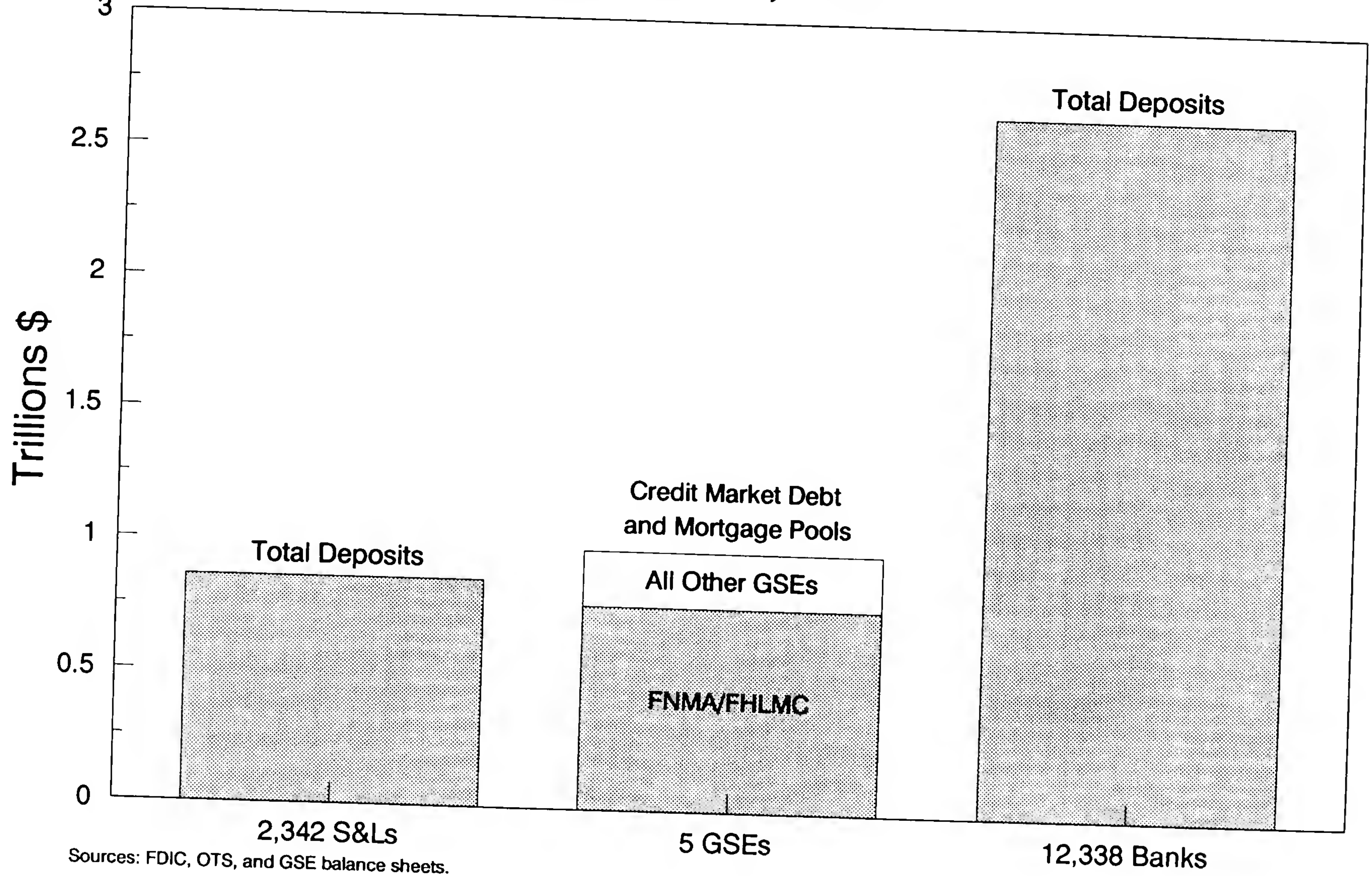
($ billions, calendar year)

	Period		Annual				
	1980–85	1986–90	1986	1987	1988	1989	1990
Business	1,104.6	1,053.2	292.6	191.0	242.8	211.9	114.9
Financial Intermediaries	313.5	447.1	111.1	127.4	125.6	56.3	26.7
GSEs*	263.1	567.7	123.4	118.6	92.8	114.5	118.4
Federal Government							
Treasury (From public)	938.5	912.5	214.7	143.4	140.0	150.0	264.4
Other Federal**	134.0	252.2	51.0	55.8	46.7	36.3	62.4
State & local	199.0	174.8	36.2	48.8	45.6	29.6	14.0
Foreign	90.6	54.7	9.7	4.5	6.3	10.9	23.1
Households	1,017.8	1,455.2	293.0	302.2	314.9	285.0	260.1
Total Credit Market Borrowing	4,061.0	4,917.4	1,131.7	991.7	1,014.7	894.5	884.8
Memo:							
* GSEs							
Debt Issues							
Fannie Mae	45.5	29.5	−0.3	3.5	8.4	10.6	7.1
Freddie Mac	8.1	16.6	1.6	4.1	7.3	−0.7	4.1
FHLBanks	44.0	43.5	14.4	27.6	20.1	−0.4	−18.2
Farm Credit System	16.7	−13.0	−6.8	−7.1	−0.6	2.0	−0.5
Sallie Mae	8.6	30.4	3.6	4.3	5.5	6.6	10.4
Total Debt Issues	122.9	107.0	12.5	32.4	40.7	18.1	3.1
Mortgage–backed securities							
Fannie Mae	55.0	244.8	42.2	42.8	38.3	49.9	71.0
Freddie Mac	85.2	215.9	68.7	43.4	13.8	46.5	43.5
Total Mortgage–backed	140.2	460.7	110.9	86.2	52.1	96.4	115.1
Total GSE	263.1	567.7	123.4	118.6	92.8	114.5	118.4
** Other Federal							
Fed Agency	−2.4	29.1	0.4	1.5	17.4	1.6	8.2
GNMA Mortgage Pools	136.4	191.9	50.6	53.1	24.7	27.8	35.7
FICO & REFCORP	****	31.2	****	1.2	4.6	6.9	18.5
Total Other	134.0	252.2	51.0	55.8	46.7	36.3	62.4

Sources: Federal Reserve Board Flow-of-Funds data; GSE balance sheets.

Chart 1

Concentration of Potential Federal Exposure
December 31, 1990



Sources: FDIC, OTS, and GSE balance sheets.

safety and soundness of the GSEs by S&P that was done at the request of the Treasury. However, that GSEs can get into financial difficulty is more than a hypothetical possibility. Both the Farm Credit System and Fannie Mae experienced financial stress during the 1980s. Federal assistance was provided to the Farm Credit System: the Agricultural Credit Act of 1987 provided up to $4 billion of Federal guarantees for bonds issued to assist System institutions and authorized Federal payment of interest on the guaranteed obligations.

The financial difficulties encountered by Fannie Mae in the early 1980s, for which direct Federal assistance was not required, is an example of the potential for a GSE's financial condition to deteriorate while its access to the credit markets remains unimpeded. Fannie Mae, unlike the Farm Credit System, was able to pursue strategies that worked to restore profitability without the benefit of financial assistance from the Government. The financial strain experienced by both GSEs demonstrates the need for sensible, well-constructed regulations that provide incentives to management to operate their institutions in a financially safe manner, so as to prevent such situations from developing again.

Since there is no imminent financial threat from the activities of the GSEs, the temptation may exist not to create a more sensible and effective regulatory structure. However, such a course is inappropriate. The experience with the troubled thrift industry and the Farm Credit System vividly demonstrates that taking action once a financial disaster has already taken place is costly and difficult. The most prudent policy goal should be to establish a regulatory framework that will reduce the likelihood of another financially painful Government rescue. As is discussed in Chapter 4, the regulatory structure for GSEs has lapses of varying degrees to the point that the current structures are not adequate to provide sufficient assurance that the GSEs will be operated in a financially safe and sound manner over the longer term.

CHAPTER 2

EFFECTIVE FINANCIAL SAFETY AND SOUNDNESS REGULATION

PRINCIPLES OF EFFECTIVE REGULATION OF GSES

A framework of effective regulation of GSEs should adhere to the following principles:

First, the primary focus of GSE regulation should be financial safety and soundness. Effective financial safety and soundness regulation of GSEs can only be performed by agencies that have the goal of maintaining GSE solvency as their primary regulatory role. Maintaining GSE solvency and ensuring the long-term financial viability of GSEs should be the principal objective of the Federal Government.

Second, the regulator must have sufficient stature to avoid capture by the GSEs or special interests. To be effective and avoid capture, the regulator must have strong statutory powers and highly qualified staff.

Third, the private sector should play a role in helping the Federal Government to assess the safety and soundness of GSEs. A combination of public and private sector oversight would reduce the risk of regulatory failure and, thus, GSE insolvency.

Fourth, the basic statutory authorities for safety and soundness regulation must be consistent across all GSEs. Oversight can be tailored through regulations that recognize the unique nature of each GSE.

Primacy of safety and soundness regulation

Financial safety and soundness regulation of GSEs must be the primary statutory goal of regulators, or regulatory conflict in the existing structure may compromise effective safety and soundness regulation. In times of economic stress, a regulator with unclear or dual statutory objectives (safety and soundness versus promotion of another public policy goal) may decide to subordinate its safety and soundness responsibility in favor of the achievement of other public policy goals. Therefore, unless a regulator has an explicit primary statutory mission to ensure safety and soundness, the Government may be exposed to excessive risk.

Congress created the GSEs to serve the credit needs of particular sectors of the economy, and the GSE charters define the specific program missions they were assigned to accomplish.[1] However, by virtue of the other characteristics bestowed on the GSEs that create the impression that they are similar to Federal agencies, the GSEs are effectively insulated from private market discipline. Thus, the nucleus of any regulatory structure should be financial safety and soundness in order to maintain financial solvency and to ensure the long-term financial viability of the GSEs so that they can perform their missions as Congress intended.

While it is true that one responsibility of Government is to choose among competing objectives, the current regulatory structure for GSEs does not impart to financial safety and soundness concerns the preeminent position that these concerns should have. This structure can be improved so as to reduce conflicts in agency missions in order that the public interest objective of assuring that the GSEs are managed prudently is performed effectively.

Sufficient regulatory stature

The responsibility for financial safety and soundness regulation needs to be performed by an agency with sufficient stature to withstand political pressure, from whatever source, to weaken regulatory standards in order to meet other goals. The agency needs the ability to withstand any tendency to be captured.

The problem of avoiding capture appears to be particularly acute in the case of regulation of GSEs. The principal GSEs are few in number; they have highly qualified staffs; they have strong support for their programs from special interest groups; and they have significant resources with which to influence political outcomes. A weak financial regulator would find GSE political power overwhelming and even the most powerful and respected Government agencies would find regulating such entities a challenge. Clearly, it is vital that any GSE financial regulator be given the necessary support, both political and material, to function effectively.

Highly motivated and exceptionally qualified staffs are necessary to regulate the GSEs effectively. Both the prestige of the agency and the level of pay are important in this connection. While pay levels can be adjusted to be competitive, the prestige of the agency will be both a function of the agency's management

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[1] Given that the charters are designed to establish the general range of the operations of the GSEs, there are decisions to be made on whether proposed new programs are within the scope of a GSE's intended authority.

and the importance ascribed to its function by the executive and legislative branches.

Funding for the regulatory agency should be provided by assessments on the GSEs. The GSEs should have the responsibility to fund regulation designed to assure their safety and soundness, and certainly they have the financial ability to do so. The regulatory agency's budget should be exempt from the normal appropriations process. This exemption is justified since taxpayer funds are not being expended. Also, removal from the normal appropriations process should assist the regulator in dealing with the capture problem.

The Treasury Department is under no illusions concerning the capture problem. No regulatory structure can ensure that it will not happen. Continued recognition of the importance of ensuring prudent management of the GSEs and vigilance in this regard by both the executive and legislative branches will be necessary.

Use of private market risk assessment mechanisms

The traditional structure and elements of financial oversight are an important starting point for GSE regulation. However, Governmental financial regulation over the last decade has failed to avert financial difficulties in the banking and thrift industries. Additionally, the financial services industry has become increasingly sophisticated in the creation of new financial products, and the pace of both change and product innovation has accelerated in the last several years. As a result, to avoid the prospect that GSEs might operate beyond the abilities of a financial regulator and to protect against the inherent shortcomings in applying a traditional financial services regulatory model to entities as unique as GSEs, it would be appropriate for the regulator to enlist the aid of the private sector in assessing the creditworthiness of these firms.

Nationally recognized statistical rating organizations (NRSROs) are one example of private sector entities that have extensive experience in assessing the credit quality of diverse business entities, and they represent a private sector resource that can be used in assessing the financial condition of the GSEs. The regulator should have the ability to use NRSROs or other private sector entities to assess the financial health of the GSEs. The information from the private sector would serve as an independent source of information that would assist the regulator in assuring financial safety and soundness.

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Basic regulatory powers for financial safety and soundness

There are certain basic, but essential, regulatory powers that should form the core of effective financial oversight for each GSE. Taken together, these powers would ensure regulatory consistency for all GSEs while, at the same time, allowing for regulatory discretion in overseeing safety and soundness of individual GSEs.

Consistency of financial oversight does not imply that the regulatory burden is the same irrespective of the GSEs' relative risk to the taxpayer. Weaker GSEs should be subjected to much closer scrutiny than financially sound GSEs. However, the basic powers of the regulator to assure financial safety and soundness should be essentially the same for all GSEs.

Regulatory discretion is necessary within these broad powers because the GSEs are unique entities and, as such, need capital requirements that reflect the nature of the risks inherent in the way each conducts its business. Additionally, because financial products and markets change rapidly, regulatory discretion would allow for flexibility to deal with the changing financial environment.

The elements of effective financial safety and soundness regulation include the following authorities for the regulatory agency:

(1) authority to determine capital standards;

(2) authority to require periodic disclosure of relevant financial information;

(3) authority to prescribe, if necessary, adequate standards for books and records and other internal controls;

(4) authority to conduct examinations; and

(5) enforcement authority, including cease and desist powers, and the authority to take prompt corrective action for a financially troubled GSE.

These authorities are discussed below.

Capital standards. The ability to establish standards prescribing the capital adequacy of GSEs is the single most important regulatory tool needed to ensure their financial safety and soundness. Capital requirements should be stringent enough to assure that the possibility of GSE insolvency is remote; however, they should not be set so high that a GSE cannot reasonably be expected to carry out its public purpose mission effectively.

The perception of credit market participants of an implied Government guarantee of GSE obligations gives GSEs virtually unlimited access to borrowed capital irrespective of their financial condition. By way of example, one GSE, Fannie Mae, has stated, "We can fund all across the yield curve, <u>in quantities we determine</u> [emphasis added]."[2] Furthermore, Fannie Mae has asserted that it has "proven, assured, and relatively low-cost liquidity, even in tough times...."[3] As a result, if a GSE encounters financial difficulty, management is in the position to employ even greater financial leverage in an effort to restore the GSE to profitability. GSE status makes this option attractive because the potential gains will accrue to stockholders, while potential losses, if severe, can be left for the taxpayer to cover. Currently, some GSEs are among the most thinly capitalized of U.S. financial entities (see Chart 2).

An appropriate capital standard serves three functions. First, by putting shareholder capital at risk, it provides a GSE with incentives traditionally imposed by the market to manage risk carefully, thus providing taxpayer protection. Second, it helps ensure the long-term financial viability of GSEs so that their services remain available to their intended constituencies. Third, it serves as a monitoring device for changes in a GSE's financial condition.

Regulatory discretion in establishing capital standards is important. Because the nature of the risks that GSEs undertake can change over time, the regulator should have flexibility to determine and, subsequently, to modify capital rules.

A capital standard should be linked to the risks and the amount of business a GSE undertakes. The principal risks are interest rate risk, credit risk, management and operations risk, and business risk. Interest rate risk relates to the sensitivity of a GSE's financial performance to changes in interest rates and in the differentials of interest rates for various maturity sectors. Credit risk is the exposure of a GSE to borrower default on the loans it has made, purchased, or guaranteed. While judgment needs to be exercised in assessing these risks, they can be mathematically modeled after certain key assumptions have been made by the regulator.

Management and operations risk and business risk are not easily modeled. Assessments of the quality of a GSE's management and the efficiency of its operations are subjective. Assessment of the business climate for a GSE is also hardly subject to

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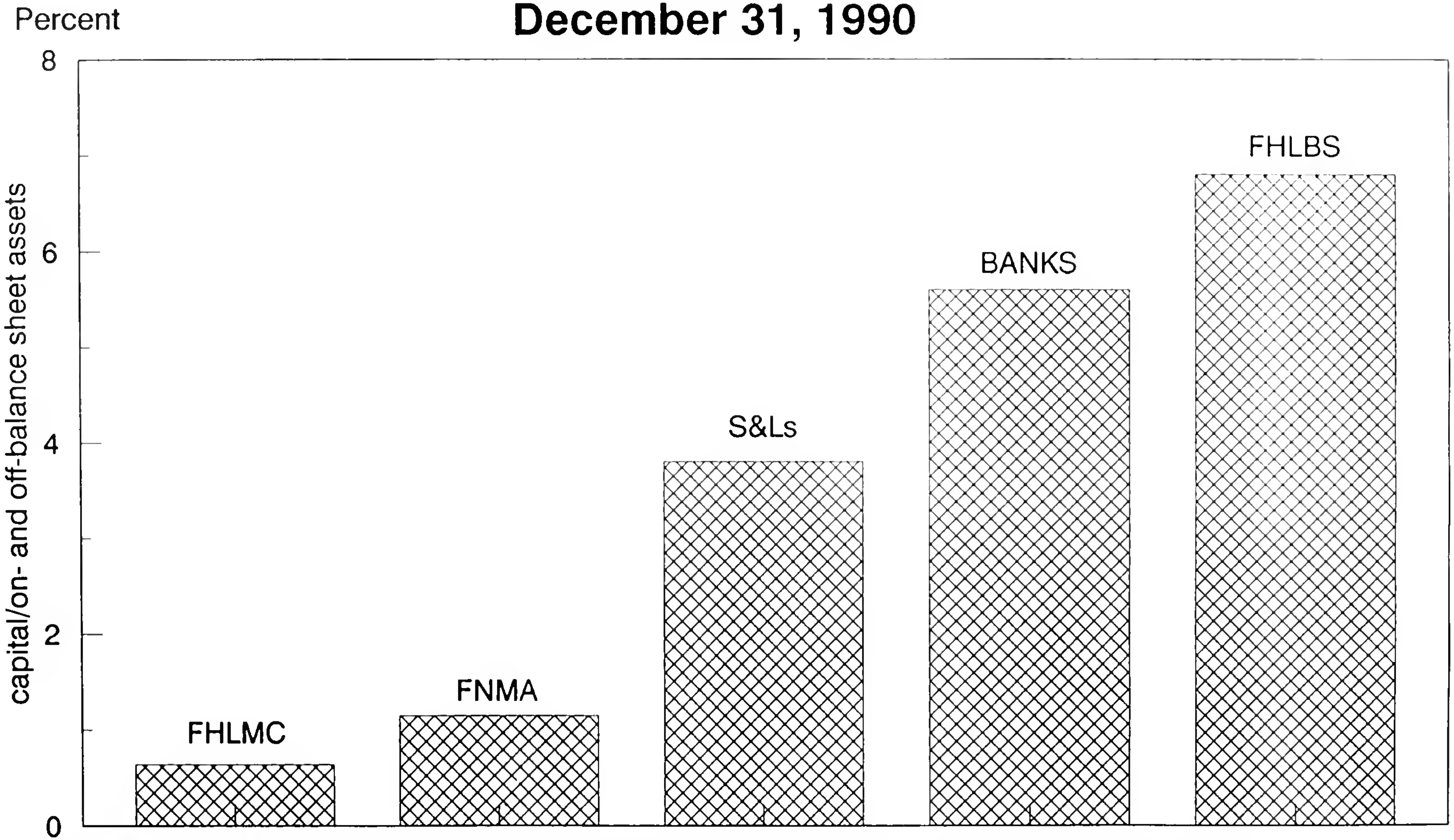
[2] February 28, 1991 letter from Fannie Mae to S&P, p. 2. (Fannie Mae provided a copy of this letter to the Treasury.)

[3] <u>Ibid</u>.

Chart 2

Major Providers of Mortgage Credit
Capital*-to-Asset Ratios**
December 31, 1990



* Capital includes common stock, additional paid-in capital, and retained earnings, but not loan-loss reserves or subordinated debt.
** Total assets include on-balance sheet assets plus off-balance sheet contingent liablities risk adjusted according to appropriate institutional criteria.

Sources: Federal Reserve, Office of Thrift Supervision, and GSE balance sheets.

precise measurement. Nevertheless, there should be an additional capital requirement to cover these types of risk, over and above the amount deemed necessary to cover interest rate and credit risk.

Finally, for financially significant new activities of the GSEs, the regulator needs the flexibility to determine in advance how the risks of the activity should be assessed for purposes of capital requirements. While it can be argued that, for the larger GSEs, any new program at its inception will be small when compared to the GSE's established activities and thus cannot conceivably threaten the financial health of the corporation, the regulator should also not be faced with a fait accompli. The regulator needs to be able to assess the financial implications of new activities for the risk profile of the GSE and set capital levels accordingly. Moreover, the regulator should be able to modify initial capital treatment as experience demonstrates that this is appropriate.

Financial disclosure. Access to information on a timely basis is a key ingredient of financial safety and soundness regulation. The financial safety and soundness regulator should have the authority to require periodic reporting of relevant financial information in order to monitor the financial condition of the GSEs it regulates.

While access to every conceivable GSE record may not be necessary, the ability of the regulator to obtain all relevant financial information should be unquestioned and not subject to any delaying tactics or legal challenge. The regulator must have the ability to monitor developments affecting the financial health of the GSEs.

Books and records and internal controls. The safety and soundness regulator needs to have the ability to assure that internal controls and information systems are adequate. Deficiencies in this area can jeopardize the financial safety and soundness of a GSE just as surely as inadequate capitalization. The regulator needs to be able to assess the adequacy of internal controls and information systems through examinations. The regulator should also have the authority to prescribe rules in this area as it deems necessary.

Examination authority. The safety and soundness regulator should be required to perform a full examination of each GSE at least annually to assure that all requirements are being met and that the organization is being managed prudently. Examinations are crucial to assure the accuracy of information being provided to the regulator and the effectiveness of internal management controls.

Examinations should prove useful to both the regulator and the GSE. As a result of these examinations, the staff of the regulatory agency would become familiar with, and understand the operations of, the GSE and may uncover potential problems so that corrective action can be taken before trouble occurs. This is in the interest of both the GSE and the regulator because an uninformed regulator can just as easily err on the side of excessive caution as on the side of laxness.

Finally, knowledge that there will be thorough financial examinations periodically will provide management with additional incentives to run their operations efficiently.

Enforcement authority. The regulator needs to have sufficient enforcement authority to assure compliance with financial safety and soundness standards. While it should rarely become necessary to utilize the more draconian of such powers, having them ensures that the regulator has sufficient authority to perform its mission.

It is contemplated that the regulator should be able to interact with the GSEs in a more informal manner than a listing of enforcement powers might suggest. Similar to other regulators, the GSE regulator should find it possible to reach understandings with the GSEs on issues and enter into letters of agreement or memoranda of understanding.

However, in order for the regulator to be taken with the utmost seriousness by the GSEs, the regulator should be given a full panoply of enforcement powers. The use of the more serious enforcement tools, it is hoped, would never prove necessary. Their availability to the regulator, though, should assist it in effectively assuring the financially safe and sound management of the GSEs.

The regulator should have the authority to require GSEs to rectify deficiencies in capital, information reporting, recordkeeping, and internal controls. It should also have cease-and-desist powers and the ability to remove, for cause, the directors and top management of the corporation in extreme situations. Finally, it should have the authority to take prompt corrective action for a GSE that falls below certain minimum capital levels.

Not all regulatory authorities should be punitive in nature. A GSE that can demonstrate financial safety and soundness of the highest order should be subject to less oversight than weaker GSEs. This could take the form of exemption from regulatory capital requirements, reduction in the frequency of reports and examinations, and possible elimination of the requirement of prior approval for new activities.

Receivership and conservatorship. The authority to put insolvent entities in receivership or conservatorship is most commonly discussed and used in the regulation of banks and thrifts. In fact, the FCA and the Finance Board have this authority for Farm Credit institutions and the FHLBanks, respectively. However, the issue becomes more complicated for the other GSEs.

As a practical matter, receivership is not a credible regulatory option for an entity as large as certain GSEs. GSE financial difficulties would not develop overnight, and effective financial regulation should preclude the need to focus on receivership as a regulatory alternative. Nevertheless, given the significance to the economy of a financial failure of the magnitude that a GSE failure would represent, the ability to appoint a conservator may be appropriate.

If any of the GSEs were to approach insolvency, Congress might act to avert a GSE failure because of the significant economic impact involved and the implication for domestic social policy. However, such future developments cannot be foreseen. While it is extremely unlikely that conservatorship power would ever be used, it would be prudent for a regulator to have this power in order to manage a fast-moving disaster with both domestic and international economic implications.

CHAPTER 3

EXISTING REGULATORY STRUCTURE OF GSEs

OVERVIEW

Responsibility for regulatory oversight of the GSEs is currently divided among several Federal agencies. HUD has primary regulatory responsibilities over Fannie Mae and Freddie Mac. The Federal Housing Finance Board is the regulator for the FHLBank System. The Farm Credit Administration has regulatory oversight of the Farm Credit System and Farmer Mac. The Treasury and the Department of Education have only minimal regulatory authority over Sallie Mae.

Each agency exercises varying degrees of oversight over the GSE(s) which it regulates. At the one extreme are the FHLBanks which are regulated by an agency that has broad administrative powers, including control over budgets, salaries, and the appointment of several FHLBank directors. At the other extreme is Sallie Mae which is virtually unregulated.

The regulatory environment for most of the GSEs includes frequent interaction with the Department of the Treasury. With the exception of the Farm Credit System and Farmer Mac, the Secretary of the Treasury must approve most of the debt and mortgage-related securities issued by the GSEs.[1] However, the Treasury uses its authority to coordinate the timing of issuances of Federal agencies and GSEs so that the securities are marketed in an orderly way. Treasury does not analyze the business operations or capital adequacy of the GSE as part of the approval process; therefore, it does not function as a financial safety and soundness regulator.

With the exception of the Farm Credit System, the President has the authority to appoint a fixed number, though a minority, of directors to each GSE's board of directors. The duties and responsibilities of Presidentially appointed directors are the same as those of shareholder-elected directors. Directors are traditionally responsible for seeing that management maximizes a corporation's profits and thus shareholder wealth, and for ensuring adherence with the corporate charter as well as all applicable laws and regulations. In addition, <u>all</u> GSE directors must ensure that the GSE's public policy purposes are fulfilled in accordance with its Federal charter. However, no director currently has an explicit obligation to minimize taxpayer exposure to risk.

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[1] For the specific security approval powers of the Secretary of the Treasury for each GSE, see the 1990 <u>Report</u>.

This chapter examines the existing regulatory structure for the GSEs with respect to financial safety and soundness regulation. The following descriptions are based on information provided to the Treasury by the various agencies.

FEDERAL NATIONAL MORTGAGE ASSOCIATION AND FEDERAL HOME LOAN MORTGAGE CORPORATION

Description of Regulatory Environment

HUD oversees the activities of Fannie Mae and Freddie Mac. HUD was created by the Department of Housing and Urban Development Act of 1965 to promote the sound development of the nation's communities and metropolitan areas.[2] Under the Act, HUD's duties are to act as housing and urban development policy advisor to the President and as coordinator of Federal programs promoting housing and fostering growth in urban areas.[3]

Within the broad scope of the duties outlined above, HUD was given both general and specific regulatory authority over Fannie Mae in 1968 and Freddie Mac in 1989.[4] The Charter Acts of Fannie Mae and Freddie Mac state that HUD "shall have general regulatory power over [Fannie Mae and Freddie Mac] and shall make such rules and regulations as shall be necessary and proper to ensure that the purposes of [the Charter Acts] are accomplished."[5] The Charter Acts also give HUD certain specific powers over Fannie Mae and Freddie Mac which help to define its role as a regulator (see below).

Historically, HUD's focus as a regulator has centered on ensuring that its interpretation of the purposes of the Charter Act were carried out; however, its philosophy and application of

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[2] 42 U.S.C. 3531 et seq.

[3] 42 U.S.C. 3532.

[4] HUD was given regulatory authorities over Fannie Mae in Fannie Mae's Charter Act (12 U.S.C. 1717 et seq.) and Freddie Mac under the Federal Home Loan Bank Act (12 U.S.C. 1451 et seq.), as amended by FIRREA.

[5] The statement of HUD's general regulatory power over Fannie Mae is contained in 12 U.S.C. 1723a(h), and the statement regarding its power over Freddie Mac is in 12 U.S.C. 1452(b).

regulatory authority have varied over the years.[6] In fact, prior to acquiring regulatory responsibilities over Freddie Mac, HUD did not have any full-time staff assigned to Fannie Mae regulation; staff resources were devoted to Fannie Mae regulation on an as-needed basis.[7]

Financial Institutions Review Board

Since the passage of FIRREA, HUD has expanded its regulatory focus to include supervising, on a full-time basis, the financial safety and soundness of Fannie Mae and Freddie Mac. HUD created a new regulatory review board and staff to coordinate and exercise its existing regulatory oversight over Fannie Mae and its new oversight authority over Freddie Mac. The Financial Institutions Review Board (FIRB) consists of the Deputy Secretary of HUD, the General Counsel, the Assistant Secretary for Housing-FHA Commissioner, the Assistant Secretary for Policy Development and Research, the Assistant Secretary for Community Planning and Development, and the President of GNMA.

The Board determines HUD's policy with respect to the regulation of Fannie Mae and Freddie Mac and in connection with the Secretary of HUD's responsibilities as a member of the Oversight Board of the Resolution Trust Corporation. FIRB is authorized to have a staff consisting of a Director, three economists, and one financial institutions examiner. Funding for the regulatory oversight of Fannie Mae and Freddie Mac is determined by the Executive Branch, and salary levels for its staff are set by the General Schedule. HUD does not have the authority to assess Fannie Mae or Freddie Mac for the cost of regulation. The President's 1992 Budget contains a proposal that, if enacted by Congress, would authorize HUD to collect fees to cover its expenses in regulating Fannie Mae and Freddie Mac.[8]

HUD has drafted new regulations for Freddie Mac and has prepared a revised draft of its regulations for Fannie Mae. These regulations are under review within the Administration at this time. The intent of the new regulations is to ensure that both Fannie Mae and Freddie Mac are operating under similar and

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[6] Under Secretary Alfred A. DelliBovi stated before the Senate Banking Committee on February 9, 1990 that "It is fair to say that HUD has not had a systematic approach in either the philosophy or the management of its regulation of [Fannie Mae]."

[7] HUD response to a Treasury question concerning regulation of Fannie Mae and Freddie Mac, February 26, 1991.

[8] <u>Budget of the United States Government, Fiscal Year 1992</u>, Part 4-721.

uniform regulatory oversight, as well as to update the regulations for Fannie Mae.

HUD interprets its general regulatory authority over Fannie Mae and Freddie Mac to include authority to establish regulations that go beyond its specific statutory powers, as contained in Fannie Mae's and Freddie Mac's Charter Acts. Fannie Mae and Freddie Mac have differing interpretations of HUD's general regulatory authority.[9] Fannie Mae officials believe that the general regulatory power does not authorize HUD, for example, to issue capital directives or cease and desist orders, or to disapprove risky activities. Freddie Mac officials, on the other hand, believe HUD has broad flexibility to promulgate rules defining its powers over Freddie Mac.

Current Regulatory Authorities of HUD

According to statute, HUD has the following specific authorities relating to the financial safety and soundness of Fannie Mae and Freddie Mac.[10]

Capital standards

HUD has statutory authority to regulate the capital level of Fannie Mae and Freddie Mac as it relates to levels of outstanding unsecured debt.[11] FIRREA imposes a capital requirement of unsecured debt to total capital of 15-to-1 on Freddie Mac and reaffirms the same capital requirement for Fannie Mae. HUD has the authority to increase the statutory ratio, that is, to make the capital requirement less stringent, and has done so, but it cannot lower it below 15-to-1.[12]

While the statutory ratio requirement can be a constraint on the growth of Freddie Mac or Fannie Mae because it sets a maximum leverage requirement, it is not an appropriate measure for overall capital adequacy. The outstanding mortgage-backed

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[9] Fannie Mae and Freddie Mac responses to Treasury questions regarding regulatory oversight and structure, February, 1991.

[10] HUD's specific powers over Fannie Mae are set forth in 12 U.S.C. 1717(b), 1718(c), 1719(b), and 1723a(h). Its powers over Freddie Mac are set forth in 12 U.S.C. 1452(b).

[11] Regulatory capital for Fannie Mae and Freddie Mac includes equity, reserves, and subordinated debt.

[12] The ratio for Fannie Mae has been altered through changes in regulations five times, to as high as 30-to-1, which was in effect between late 1982 and the spring of 1987. The ratio was last changed on December 31, 1988 when it was lowered from 25-to-1 to 20-to-1.

securities (MBS) guaranteed by these GSEs are not accounted for in the statutory requirement and, therefore, MBS issuance is not restrained by a requirement that it be supported by a specific level of capital. Moreover, the statutory capital requirement does not take into account the quality of assets or the interest rate risk in the portfolio. In order to be meaningful, any capital requirement must, at a minimum, include off-balance sheet obligations; thus, the capital requirement should include MBS, since they represent a significant portion of the risk of the operations of Fannie Mae and Freddie Mac.

Financial disclosure

HUD has statutory authority to require Fannie Mae and Freddie Mac to make reports on their activities as it deems advisable. Through its general regulatory power, HUD has required extensive periodic reports on specific Fannie Mae activities, as well as an annual study that details Fannie Mae's business plans.[13] Since FIRREA, HUD has requested additional extensive information from both Fannie Mae and Freddie Mac. HUD has used this data from the operations of both GSEs to develop models that enable it to assess credit risk and interest rate risk.

Books and records and internal controls

HUD does not have explicit statutory authority to prescribe rules to ensure the adequacy of internal controls and information systems at Fannie Mae and Freddie Mac. However, HUD believes it has powers in this area under its general regulatory authority.

Examination authority

HUD is authorized to examine and audit the books and financial transactions of Fannie Mae and Freddie Mac. HUD has never conducted an extensive examination or audit of Fannie Mae in the past. HUD officials state that the Department is currently building the capacity to conduct bank-type examinations of both GSEs. HUD is also in the process of contracting with a private-sector firm to conduct an initial examination and to set up procedures and criteria for future examinations.

Enforcement authority

According to HUD, its general regulatory authority gives it sufficient enforcement powers over Fannie Mae and Freddie Mac. HUD also has specific statutory enforcement powers. Its only specific statutory authorities are its ability to limit dividends

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[13] 24 C.F.R. 81.21-25.

and to change capital requirements, subject to the 15-to-1 minimum, but both authorities suffer defects as true enforcement powers. HUD only has specific authority to limit cash dividends on common stock to a rate determined to be a fair rate of return after consideration of current earnings and capital condition. Moreover, as described previously, its specific authority over capital standards is limited to on-balance sheet activities, and HUD is unable to impose stricter capital standards than the statutory 15-to-1 leverage ratio.

Other regulatory authorities

Prior approval. HUD has the power to approve, prior to initiation, programs of Fannie Mae and Freddie Mac involving the purchase, servicing, sale, or lending on the security of, or otherwise dealing in, conventional mortgages. Historically, HUD's criteria for new programs have included consideration of both housing goals and the risk to the Government, but with different emphases at different times. Since FIRREA, HUD has increased the emphasis given to the risks to the Government posed by new programs.

Low- and moderate-income requirements. HUD may require that a reasonable portion of the mortgage purchases of Fannie Mae and Freddie Mac be related to the national goal of providing adequate housing for low- and moderate-income families, but with reasonable economic return to the GSEs. HUD currently requires 30 percent of Fannie Mae's annual mortgage purchases to be secured by housing for low- and moderate-income families.[14]

FEDERAL HOME LOAN BANKS

Description of Regulatory Environment

The Finance Board is an independent agency within the Executive Branch that oversees the FHLBanks. It was created by FIRREA, which transferred the authority of the Federal Home Loan Bank Board with respect to the FHLBanks to the Finance Board.

The Finance Board expects to be fully staffed at 88 employees by June 1991 and is funded through semiannual assessments on the FHLBanks. FIRREA directs the Finance Board to consult with, and maintain comparability with the compensation of, the Federal banking regulators. The Finance Board recently adopted a permanent compensation plan modeled after that of the Federal Deposit Insurance Corporation and the Resolution Trust Corporation Oversight Board.

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[14] See 24 C.F.R. 81.2 for HUD's definition of low- and moderate-income families.

The Finance Board is composed of four part-time directors and one full-time director, who are appointed by the President, and the Secretary of HUD who serves ex officio. FIRREA requires that the directors have extensive experience in housing finance or a commitment to providing specialized housing credit. At least one director must be from an organization representing consumer or community interests. The Finance Board's appointed directors were sworn in on December 18, 1990.

The statutory mission of the Finance Board includes both financial safety and soundness and programmatic responsibilities. FIRREA set forth the following duties for the agency:

(1) to supervise the FHLBanks;

(2) to ensure that the FHLBanks carry out their housing finance mission;

(3) to ensure the FHLBanks remain adequately capitalized and able to raise funds in the capital markets; and

(4) to ensure that the FHLBanks operate in a safe and sound manner.[15]

The agency's two stated strategies for fulfilling its statutory mission are establishing its credibility as a safety and soundness regulator and establishing the Bank System as the nation's premier housing lender.[16] The Finance Board views its primary mission as ensuring the safe and sound operations of the FHLBanks through examinations, audits, and financial reporting. The second strategy involves ensuring that the FHLBanks meet their public purpose by providing housing finance as efficiently as possible. This includes providing the leadership to help the FHLBanks adapt to changes in the thrift industry and expand their lending to commercial banks and credit unions.

Current Regulatory Authorities of the Finance Board

The Finance Board has broad statutory powers over the FHLBanks. It uses these powers to ensure the safety and soundness of the FHLBanks and to ensure that they carry out their public purpose of providing home finance. These powers enable the Finance Board to take preventive action to protect individual FHLBanks which are jointly and severally liable for the Bank System's consolidated obligations. The FHLBank Act provides that

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[15] 12 U.S.C. 1422a(a).

[16] Response of the Finance Board to Treasury questions regarding regulation of the FHLBanks, February 19, 1991.

individual FHLBanks may exercise their powers subject to the approval of the Finance Board.[17] The Finance Board also approves applications for new members to the Bank System.

Capital standards

The Finance Board has an explicit statutory duty to ensure that the FHLBanks remain adequately capitalized. The FHLBanks are currently subject to both legislative and regulatory capital requirements. The FHLBank Act requires members to hold capital stock in their FHLBank equal to the greater of .3 percent of the member's total assets, one percent of the member's mortgage-related assets, or 5 percent of a member's outstanding advances.[18] The Finance Board is developing credit-risk-based capital standards for the FHLBanks that will include off-balance sheet items.[19] However, the statutory stock purchase requirement for advances effectively sets the capital-to-advances ratio at a minimum of 5 percent.

The regulatory requirement, which is also required by consolidated bond covenants, mandates that the Bank System's consolidated obligations not exceed 12 times the sum of its capital stock and reserves. As of year-end 1990, consolidated obligations comprised about three-quarters of the Bank System's liabilities.

The Finance Board also controls the FHLBanks' capital holdings through its approval of the FHLBanks' quarterly dividends. Quarterly dividend data are reviewed to determine regulatory and financial appropriateness of projected individual FHLBank dividends. If a FHLBank were found to have insufficient capital, its permissible dividend payments could be reduced.

Finally, the Finance Board can limit the redemption of capital stock should a FHLBank's financial condition warrant. Every institution that belongs to the Bank System must purchase stock, which is not traded on a secondary market. The stock is redeemable at par value ($100 share), unless the Finance Board determines that a FHLBank's paid-in capital is, or might be,

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[17] 12 U.S.C. 1432(a).

[18] Advances have traditionally constituted virtually all of the Bank System's assets, although the advance-to-asset ratio has declined recently, from 90 percent in 1980 to 71 percent at year-end 1990.

[19] The Finance Board expects to address interest rate risk through a separate policy which would limit a FHLBank's exposure to interest rate risk.

impaired. In this case, the Finance Board may order the FHLBank to withhold a pro-rata share of the impaired capital.[20]

Financial disclosure

As noted above, the Finance Board collects a wide variety of financial data on a regular basis, which are used to monitor interest rate, credit, and lending concentration risk of individual FHLBanks and the Bank System as a whole. The Finance Board recently developed a model to measure FHLBanks' exposure to interest rate risk. The Finance Board plans to use the model to monitor and set limits on the FHLBanks' interest rate risk exposure.[21]

Debt financing requests by individual FHLBanks are used to forecast monthly debt requirements of the Bank System and ensure adequate financing coordination among the FHLBanks. Internal audit reports on FHLBank operations and external audit reports on FHLBank financial statements are provided on an annual basis. Finally, the Finance Board reviews the minutes of the meetings of the FHLBank boards of directors and their committees.

Books and records and internal controls

The Finance Board has the authority to ensure that the internal controls and information systems of the FHLBanks are adequate. If deficiencies are found in this area, the Finance Board can issue a supervisory letter or directive that would require the FHLBanks to promptly correct the deficiencies.[22]

Examination authority

The FHLBank Act requires the FHLBanks to be examined annually.[23] The Finance Board began on-site examinations in

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[20] 12 U.S.C. 1426(e).

[21] The model measures the durations of equity for each of the FHLBanks under current interest rate conditions and after 200 basis point increases and decreases in interest rates.

[22] The Finance Board states it has the authority to do so under 12 U.S.C. 1422b(a), which gives it the power to issue orders necessary to fulfill the provisions of the FHLBank Act.

[23] 12 U.S.C. 1440.

March 1991.[24] The Examination Division currently employs three individuals; it is slated to have a staff of eight in place by the end of 1991. The scope of the examinations generally focuses on credit/collateral positions, funding operations, management, and regulatory compliance. In addition, the Finance Board will perform special and follow-up examinations as necessary. Finance Board officials believe that much of the information-gathering, monitoring, and analysis associated with oversight of the FHLBanks does not require an on-site presence. They expect to monitor and examine some issues off-site, based on specific information requests and other documentation and information routinely received.

The Finance Board reviews daily information on certain balance sheet items, off-balance sheet activity, investments, and consolidated obligations to monitor compliance with minimum reserve (liquidity) requirements, leverage ratio limitations, and investment limitations. Operational information is used to monitor director eligibility[25] and the FHLBanks correspondent banking services' compliance with the Private Sector Adjustment Factor. FHLBank monthly balance sheets, income statements, cash flow statements, and investment activities are reviewed as well. The Board receives updated 12-month income projections as part of the FHLBanks' quarterly dividend proposals.

All internal audit departments prepare an annual audit plan, which is reviewed by the Finance Board. Finance Board staff attends FHLBank audit committee meetings. In addition, the Finance Board receives copies of all internal audits and minutes and reports of the FHLBanks' audit committees.

Enforcement authority

The statute gives the Finance Board authority to suspend or remove officers and directors for cause.[26] The Finance Board may also issue supervisory letters, supervisory and capital directives, and restrict dividends. The Finance Board states it has implicit authority to issue temporary and permanent cease and

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[24] In 1990, supervisory visits were made to all FHLBanks. In addition, the Finance Board has conducted analyses of each FHLBank's internal audit department, financial performance and regulatory compliance.

[25] Under FIRREA, no person who is an officer or director of a member institution that fails to meet any minimum applicable capital requirement is eligible to become a director of a FHLBank.

[26] 12 U.S.C. 1422b(a)(2).

desist orders, although FIRREA did not give it the explicit authority to do so.[27] The statute does not authorize the Finance Board to assess civil money penalties.

The Finance Board has initiated several enforcement actions since August 1989. Most of these actions were supervisory letters addressing investments in excess of authorized levels. Another matter involved the violation of the Finance Board's limitation on a FHLBank president's compensation.

Other regulatory authorities

Prior approval. The Finance Board has the power to approve new and existing activities.[28] Permissible types and amounts of FHLBank investments are set forth in the Finance Board's funds management policy. A FHLBank must petition the Finance Board if it wants a waiver from the guidelines. The Finance Board generally reviews petitions on safety and soundness grounds. For example, last year it withheld approval of a request by the FHLBank of Dallas to purchase participations in construction loans on the grounds that the proposed investments did not satisfy statutory requirements.[29]

The Finance Board also approves the FHLBanks' debt offerings. It can limit indirectly other activities through approval of the individual FHLBank budgets.

Budgets. Analysis of FHLBank budgets includes review of budgeted expenditures, projected advances, net income, and variances between each FHLBank's approved operating and capital budgets and actual expenditures. Beginning with the 1991 FHLBank budgets, the Finance Board established specific performance goals for each FHLBank, including targets for operating expenses relative to income.

Officers and directors. For each of the 12 FHLBanks, the Finance Board appoints six of the directors and supervises the election of the remainder, for a total of at least 14 directors. By statute, at least two of each FHLBank's appointed directors

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[27] The Finance Board states it has the authority under 12 U.S.C. 1422b(a), which gives it the power to issue orders necessary to fulfill the provisions of the FHLBank Act, and under 12 U.S.C. 1432(a)(1), which gives the Finance Board authority to restrict powers granted to the FHLBanks by law.

[28] 12 U.S.C. 1432(a) and 1422b(a).

[29] The Finance Board is in the process of revising the funds management policy.

must be representatives from organizations representing consumer or community interests. The Finance Board designates the chair and vice-chair of each FHLBank's board of directors and the geographic area of elective directorships in each district. The Finance Board approves the compensation of FHLBank presidents and directors.

Strategic planning. The Finance Board has established a strategic planning directorate, which has as its primary responsibility the strategic planning for the Bank System, including membership and credit product issues. The regulator also reviews and approves annual strategic plans for the individual FHLBanks (from which capital and operating plans are developed) and mid-year updates of the strategic plans. These are used to monitor the FHLBanks' goals and objectives.

Liquidations/reorganizations of FHLBanks. The Finance Board has broad powers in this area, within a statutory framework that mandates that there be at least eight, but not more than twelve, FHLBanks. The statute provides that the Finance Board may liquidate or reorganize a FHLBank whenever it finds such action will aid the efficient and economical accomplishment of the FHLBank Act. In the case of any liquidation or reorganization, another FHLBank may, with the approval of the Finance Board, acquire assets of any such liquidated or reorganized FHLBank and assume part or all of the liabilities.

FARM CREDIT SYSTEM

Description of Regulatory Environment

The Farm Credit Administration is an independent agency in the Executive Branch, created to regulate and examine the banks, associations, and related institutions and organizations of the Farm Credit System chartered under the Farm Credit Act of 1971, as amended (the Act). Prior to 1985, the FCA actively promoted the System, essentially acting as the System's voice on most matters affecting it. The FCA had a 13-member board, all appointed by the President. Twelve of these members, however, were selected from lists of nominees selected by System representatives in the twelve Farm Credit districts. As a result, these members were more likely to have allegiances to the System. The FCA had no explicit enforcement powers and used its numerous prior approval authorities to exert influence on the day-to-day decisions of System banks, including credit decisions on individual loans.[30]

With the Farm Credit Amendments Act of 1985, Congress gave the FCA a mandate to be a stronger regulator.[31] The 1985 legislation and the Agricultural Credit Act of 1987 gave the FCA enforcement powers, changed the board structure and, to a large extent, removed the FCA from the day-to-day management activities of System institutions.

The management of the FCA is vested in a full-time, three-member board, appointed by the President with the advice and consent of the Senate. The board members, one of whom is designated as chairman by the President, serve six-year terms and are required to be "broadly representative of the public interest."[32]

The Chairman, who also serves as the agency's chief executive officer, is required to consult on a regular basis with:

(1) the Secretary of the Treasury concerning System borrowing;

(2) the Board of Governors of the Federal Reserve System concerning the effect of System lending activities on national monetary policy; and

(3) the Secretary of Agriculture concerning the effect of System policies on farmers, ranchers, and the agricultural economy.

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[30] The FCA has had numerous other approval authorities, including approval of interest rates on loans offered by each of the System banks.

[31] The House Report for the Farm Credit Amendments Act of 1985 (H. Rep. No. 425, 99th Cong., 1st Session, 1985, p. 3) reads as follows:

> The Farm Credit Administration, an existing federal agency that supervises Farm Credit System activities, would be reorganized and strengthened. The Farm Credit Administration would abandon past practices that amount to day-to-day participation in management of System activities and would become an arm's-length regulator like other similar federal agencies.

[32] 12 U.S.C. 2242.

The FCA is organized into six functional offices and has 526 employees, 356 of whom are in the Office of Examination.[33] FCA operating expenses are covered by assessments on System institutions.

Current Regulatory Authorities of the FCA

The FCA's general authorities include the authority to promulgate rules and regulations for the implementation of the Farm Credit Act, to examine and regulate System institutions, and to require such reports from System institutions as it deems necessary.[34] The FCA also has more specific, enumerated authorities which include the authority to establish standards for System institutions with respect to loan security requirements and to conduct loan and collateral security review. In addition, the FCA has the authority to regulate the borrowing, repayment, and transfer of funds and equities among System institutions.

The FCA's authorities with regard to setting capital standards, examining System institutions, requiring reports and other financial disclosure, taking enforcement actions, and forcing mergers or liquidations are spelled out in the Act. The following sections contain more thorough descriptions of these authorities, as well as the FCA's prior approval authorities.

Capital standards

The Agricultural Credit Act of 1987 required the FCA to "establish minimum permanent capital adequacy standards" for System institutions; these standards were required to "specify fixed percentages representing the ratio of permanent capital of the institution to the assets of the institution, taking into consideration relative risk factors as determined by the Farm Credit Administration."[35] The definition of permanent capital includes retained earnings, allocated and unallocated earnings, surplus (less allowance for losses), and at-risk stock.[36]

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[33] Data are from FCA, as of March 11, 1991.

[34] 12 U.S.C. 2243.

[35] 12 U.S.C. 2154; section 301(a) of P.L. 100-399.

[36] At-risk stock includes voting and nonvoting stock (including preferred stock), equivalent contributions to a guaranty fund, participation certificates, and allocated equities. It does not include stock and allocated equities protected as a result of the 1987 Act. (12 U.S.C. 2154a).

Although the FCA has little discretion regarding the definition of permanent capital, it retains significant discretion as to the appropriate level of capital and the risk weighting of assets. The FCA issued regulations in 1988 setting risk-based capital standards of 7 percent for all System institutions.[37] The risk weightings of assets for these standards are roughly comparable to those promulgated by the commercial bank regulators. For example, cash has a 0 percent weighting; Treasury securities have a 10 percent weighting; State and local government obligations backed by full faith and credit have a 20 percent weighting; and rural housing loans secured by first lien mortgages have a 50 percent weighting. One difference between these standards and those adopted by the commercial bank regulators is that the general allowance for losses does not count as a component of capital.[38]

The failure of an institution to meet its minimum capital standard may be deemed by the FCA to constitute an unsafe and unsound practice, thus giving the FCA the authority to take one of a number of enforcement actions. The FCA may also require an institution with inadequate capital to submit and adhere to a plan describing the means and timing by which the institution will achieve its required capital level. The FCA may consider the institution's progress in adhering to its plan when the institution seeks the FCA's approval for any proposal that would divert earnings, diminish capital, or otherwise adversely affect the ability of the institution to comply with its plan. Finally, System institutions may not pay dividends, patronage refunds, or retire stock, if doing so would cause the institution to fail to meet its minimum capital standards.[39]

Another component of the FCA's capital standards requires the System's Banks for Cooperatives (BCs) to add at least 10 percent of annual earnings to unallocated surplus until unallocated surplus is equal to one-half of their 7 percent minimum capital requirement.[40] The FCA argued that this was

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[37] 12 C.F.R. 615.5205.

[38] Under the guidelines adopted by the Office of the Comptroller of the Currency, the allowance for loan losses may be counted as a part of Tier 2 capital, up to 1.25% of risk-weighted assets.

[39] 12 U.S.C. 2154.

[40] This requirement was the FCA's response to a practice common to the BCs at the time the FCA issued these capital standards. "Allocated surplus" is a non-cash distribution to stockholders. Like cash dividends, it decreases a BC's taxable income; however, it also counts as capital for purposes of a BC's

necessary because the BCs only had a small level of capital funds not allocated to their borrowers. Therefore, in the interest of safety and soundness, the FCA required a buffer consisting of unallocated equity. This requirement is conceptually similar to the Tier 1 and Tier 2 classifications of capital for commercial banks. It may be appropriate to consider a similar requirement for all other System institutions, particularly given some of Treasury's concerns expressed in the 1990 Report regarding the quality of borrower stock as capital.

Financial disclosure

The FCA has the authority to regulate the preparation by System institutions of information on their financial condition and operations for dissemination to stockholders and investors. The FCA has used this authority to issue regulations containing minimum information requirements for System institutions' quarterly and annual reports to shareholders. These reports are required to include financial statements prepared in accordance with generally accepted accounting principles and audited by a qualified public accountant.[41]

Each System institution is also required to submit a quarterly report of condition and performance, or call report, to the FCA. These call reports are similar in format and level of detail to those filed by banks and thrifts with their Federal regulators.[42]

The FCA also has a loan accounting report system (LARS), which consists of detailed loan data at the individual loan level. The FCA requires System institutions to submit this data on computer tapes on a quarterly basis. LARS is used as an additional tool to assist the FCA's examination process, as well as for special projects.

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minimum capital standards. The FCA issued the additional standard for the BCs to create a buffer between allocated equities (borrower stock and allocated surplus) and any losses greater than the reserve for loan losses. (53 C.F.R. 40045 (1988)).

[41] There are several exceptions to generally accepted accounting principles that are established by statute.

[42] 12 C.F.R. 621.10.

Books and records and internal controls

The FCA has broad statutory authorities to regulate and examine System institutions, as well as specific authorities to monitor management effectiveness and prescribe uniform financial reporting standards. These authorities give the FCA adequate power to require effective internal controls and information systems.[43]

Examination authority

The FCA is required to examine System institutions at least once each year.[44] These examinations are required to include an analysis of credit and collateral quality and capitalization of the institution, an appraisal of the institution's management, and an appraisal of the institution's application of policies carrying out the Farm Credit Act, FCA regulations, and the institution's effectiveness in servicing all eligible borrowers.[45] This last requirement seems to imply that the FCA's responsibilities could be construed to include forcing System institutions to make loans to all "eligible borrowers." However, during discussions on this topic, FCA staff suggested that, in practice, the FCA's sole concern is that System institutions' extension of credit be sound from a business perspective.

Like other financial institution regulators, the FCA uses a rating system (CAMEL) which rates institutions on a scale of one to five for capital adequacy, asset quality, management and administration, earnings, and liquidity. Examiners calculate 26 key statistics and are expected to consider numerous qualitative factors when rating institutions. Any institution receiving a CAMEL rating of 3 (or worse) is automatically referred to the Office of Regulatory Enforcement, which must then consider whether (and in what form) to take action.

FCA examiners do not generally examine each loan in an institution's portfolio, but use sampling techniques which are likely to concentrate more heavily on new, large and troubled loans. Institutions which are considered riskier generally receive more comprehensive examinations. For example, one part of an examination consists of the examiner's recommendations for

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[43] 12 U.S.C. 2254 and 12 U.S.C. 2257(a).

[44] Except Federal land bank associations, which the FCA is only required to examine once every three years.

[45] 12 U.S.C. 2254.

future examination requirements, including follow-up activities and the time and staffing required for such activities.

The FCA is authorized to publish the report of examination of any System institution that fails to comply with an FCA recommendation (based upon an examination) within 120 days of receiving notification of the recommendation. The FCA board may also require examinations of the condition of any organization (other than a federally regulated financial institution) with a loan from any System institution.

Enforcement authority

The FCA has essentially the same enforcement powers that commercial bank regulators have. These include the authority to issue cease and desist orders, to suspend or remove directors and officers, and to require payment of civil money penalties.

Cease and desist orders. If the FCA believes that an institution is engaging in an unsafe or unsound practice, or is violating a law, rule or regulation, the FCA may fix a time and place for a hearing to determine whether a cease and desist order should be issued.[46] However, if the FCA determines that an institution's actions are likely to cause insolvency or substantial dissipation of assets or earnings prior to completion of a hearing, the FCA may issue a temporary cease and desist order.[47]

Suspension or removal of directors or officers. The FCA may remove a director or officer of a System institution if the FCA believes that the individual has violated a law, rule or regulation, or has engaged in an unsafe or unsound practice, or has breached a fiduciary duty.[48] The FCA may also remove a director or officer who has been charged with a felony if that individual's continued service might pose a threat to the interests of the institution's shareholders or investors in System obligations (or impair public confidence in the institution or the System).[49]

Civil money penalties. If an institution, officer, director, or employee violates the terms of a final cease and desist order, the FCA may require payment of a civil money

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[46] 12 U.S.C. 2261.

[47] 12 U.S.C. 2262.

[48] 12 U.S.C. 2264.

[49] 12 U.S.C. 2265.

penalty of up to $1,000 per day. The FCA may also require payment of a civil money penalty of up to $500 per day for a violation of a regulation or provision of the Farm Credit Act.[50]

Since 1986, the FCA increasingly has made use of its enforcement powers, particularly for issues involving asset quality and credit administration, capital adequacy, and quality of management. In 1990, the FCA took 89 enforcement actions, including 10 cease and desist orders.[51]

Other regulatory authorities

Prior approval. The FCA continues to have a number of prior approval authorities, such as the offering of new services[52], the issuance of most Systemwide obligations, modifications of the boundaries of farm credit districts, and the merger, consolidation, or division of the territories of System institutions.

Mergers or liquidations of system institutions. The FCA may require an association to merge with another association if it determines, with the concurrence of the board of the supervising bank, that an association has failed to meet its outstanding obligations or failed to conduct its operations in accordance with the Act.[53] The FCA may also appoint a conservator or receiver for any System institution if it determines that one of the following conditions exists:

(1) The institution is insolvent.

(2) There has been a substantial dissipation of assets or earnings due to violations of law, rules or regulations, or to any unsafe or unsound practice.

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[50] 12 U.S.C. 2268.

[51] Other enforcement actions included 16 supervisory letters, 6 agreements, 36 follow-up letters, 15 conditions of reorganization, 2 amended cease and desist orders, and 4 conditions of corporate restructuring.

[52] The FCA has issued regulations requiring System institutions to seek FCA prior approval for new services. (12 C.F.R. 618.8000). Numerous sections of the statute were cited as the authority for these regulations, including 12 U.S.C. 2020, 12 U.S.C. 2076, and 12 U.S.C. 2128.

[53] 12 U.S.C. 2183.

(3) The institution is in an unsafe or unsound condition.

(4) The institution has committed a willful violation of a final cease and desist order.

(5) The institution is concealing its books, papers, records, or assets, or is refusing to make such materials available for inspection to an FCA examiner.

(6) The institution is unable to make a timely payment of principal or interest on any insured obligation issued by the institution.

The last forced liquidation of a System institution involved an association in 1989. Prior to that the Federal Land Bank of Jackson was put into receivership in 1988.

Farm Credit System Insurance Corporation

The Insurance Corporation was created by the Agricultural Credit Act of 1987 to ensure "the timely payment of principal and interest on notes, bonds, debentures, and other obligations" of System banks.[54] The Insurance Corporation is also required to satisfy any defaults of System institutions on their Financial Assistance Corporation bond interest and principal payments and to ensure the retirement of any liquidated institution's protected borrower stock. In addition, the Insurance Corporation may provide assistance to troubled banks.

The members of the Board of the Insurance Corporation are also the members of the FCA Board, although the Insurance Corporation's Chairman is required to be a member other than the FCA Chairman. The Insurance Corporation will not assume its full statutory authorities until January 1, 1993.

The Insurance Corporation's sources of funds include $260 million which was transferred from the FCA (the "revolving fund"), premiums assessed on System banks, and interest earned from investments. The target level for the fund, the "secure base amount," is set by statute at two percent of insured obligations.[55] As of December 31, 1990, the net worth of the

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[54] 12 U.S.C. 2277a-1.

[55] 12 U.S.C. 2277a-4. Premium levels are also set by statute: 15 basis points on the banks' accrual loans; 25 basis points on banks' nonaccrual loans; 1.5 basis points on the guaranteed portions of federally guaranteed loans made by the banks (and in accrual status); and 3 basis points on the

Insurance Fund was about $300 million, or just under one-third of the secure base amount.

One of the principal reasons for the Insurance Corporation's creation was the difficulty of implementing the "joint and several liability" mechanism during the 1980s.[56] This mechanism (which will stand behind the Insurance Corporation when it becomes fully operational in 1993) legally binds all System banks to stand behind all Systemwide obligations, should one bank be unable to redeem its share of a maturing obligation. One problem with joint and several liability that is shared by the Insurance Corporation, however, is the difficulty of accessing capital in the System at the association level. Because only System banks are bound by the joint and several liability agreement, there was in the past significant reluctance on the part of some associations to inject additional capital into a troubled bank in which they held stock. Similarly, under current law, the Insurance Corporation does not have the authority to tap association capital when a bank fails.

Powers of the Insurance Corporation

The Insurance Corporation is authorized to make examinations and require information and reports from System institutions. If the FCA finds reason to appoint a conservator or receiver for a System institution, the conservator or receiver is required to be the Insurance Corporation. The Insurance Corporation may make loans to, purchase the assets or securities of, assume the liabilities of, or make contributions to, any troubled insured bank for one of the following reasons:

(1) to prevent putting the bank in receivership;

(2) to restore the bank to normal operation; or

(3) to reduce the risks to the Insurance Corporation when severe financial conditions threaten numerous banks.

Before giving assistance to a System bank, the Insurance Corporation must determine that the cost of assistance is less than the cost of liquidation.

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guaranteed portions of State government-guaranteed loans made by the banks (and in accrual status). When the secure base amount is reached, the Insurance Corporation is required to reduce the premiums to an amount sufficient to ensure maintenance of the secure base amount.

[56] See discussion on page D-53 of 1990 Report.

FEDERAL AGRICULTURAL MORTGAGE CORPORATION

Description of Regulatory Environment

The Agricultural Credit Act of 1987, which chartered Farmer Mac as an institution of the Farm Credit System, gave the FCA general supervisory authorities over the corporation.[57] The FCA may assess Farmer Mac for the costs of these regulatory activities.[58]

Current Regulatory Authorities of the FCA

The FCA's regulatory authorities with respect to Farmer Mac include examination, safety and soundness supervision and enforcement authorities, but not general rule-making authority. During consideration of the 1990 Farm Bill, the FCA failed in an attempt to have its statutory authorities over Farmer Mac expanded to include an express grant of general rule-making authority. The FCA argues that such authority is needed in order to make its ability to use safety and soundness enforcement powers more effective. The FCA contends that without general rule-making authority, it is limited to taking reactive, "after the fact" enforcement actions, rather than preventive actions through rules and regulations.

Farmer Mac staff indicated that the FCA's current authorities are more than adequate for it to act in response to any safety and soundness concerns. Indeed, Farmer Mac believes that general rule-making authority would give the FCA too much influence over Farmer Mac's day-to-day business and management decisions.

Capital standards

The FCA believes that capital must be adjusted periodically to reflect the risk in an institution's operations and, thus, is an appropriate subject for examiner review. However, without general rule-making authority, it is not certain that the FCA has the authority to set capital standards by regulation.

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[57] 12 U.S.C. 2279aa-1.

[58] 12 U.S.C. 2279aa-11.

Financial disclosure

Farmer Mac is required to publish an annual report prepared in accordance with generally accepted accounting principles, containing such information as required by the FCA. This report is also required to be audited by an independent public accountant.[59] The FCA also requires Farmer Mac to file a call report on a quarterly basis.

Examination authority

The FCA has the authority to examine Farmer Mac's condition and financial transactions and to promulgate rules and regulations for implementing such examinations.[60] The FCA is required to examine Farmer Mac at least annually.

Enforcement authority

The FCA, in its role as supervisor of Farmer Mac's safety and soundness, has the same enforcement powers that it has for other System institutions. These include the authority to issue cease and desist orders, suspend or remove directors and officers, and require payment of civil money penalties.

Other regulatory authorities

Prior approval authority. The FCA has no prior approval authorities over Farmer Mac.

STUDENT LOAN MARKETING ASSOCIATION

Description of Regulatory Environment

No Federal agency has statutory authority to regulate Sallie Mae business operations or capital adequacy. The Higher Education Act of 1965 specifically states that:

> Nothing in this section [pertaining to Department of Education and Treasury approval of Sallie Mae obligations] shall be construed so as to authorize the Secretary of Education or the Secretary of the Treasury to limit,

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[59] Ibid.

[60] Ibid.

control, or constrain programs of the Association or support of the Guaranteed Student Loan Program by the Association.[61]

The Department of Health and Human Services is also without authority to regulate Sallie Mae.

Sallie Mae is subject, from time to time, to the same type of review of its student loan servicing operations that applies to other holders of guaranteed student loans. Such reviews are undertaken by the General Accounting Office, the Department of Education, and the Department of Health and Human Services. These reviews are confined to Sallie Mae guaranteed loan servicing operations and do not analyze overall business operations or capital adequacy.

The Department of Education Office of Postsecondary Education and the State and private nonprofit guarantee agencies which insure Guaranteed Student Loan Program (GSLP) loans conduct reviews of Sallie Mae compliance with Department of Education due diligence regulations (pertaining to loan servicing) and other aspects of lender participation in GSLP.[62] The Department of Education Inspector General also has authority to conduct periodic reviews of Sallie Mae participation in GSLP. The findings and recommendations of these offices may result in regulatory or legislative changes affecting the GSLP and Sallie Mae loan servicing operations.

Sallie Mae is required to submit a report of its annual audit by a certified independent auditing firm to the Secretary of the Treasury and is required to provide the Secretary of the Treasury with access to all Sallie Mae books and records.[63] The Secretary, in turn, is required to report to the President and Congress on the financial condition of Sallie Mae, including "a report of any impairment of capital or lack of sufficient capital noted in the audit."[64] In recent years, Sallie Mae has submitted its publicly available annual reports to the Secretary of the Treasury and other financial information upon request of Treasury staff. The Treasury has not noted any impairments of

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[61] 20 U.S.C. 1087-2(h)(2).

[62] 34 C.F.R. 682.208, 682.411. For example, interest and special allowance billings and loan disbursements. (34 C.F.R. 682.207, 682.304, 682.414(c)(2)).

[63] 20 U.S.C. 1087-2(j).

[64] 20 U.S.C. 1087-2(k).

Sallie Mae capital. Sallie Mae is also required to submit annual reports on its operations and activities to the President and Congress.[65]

[65] 20 U.S.C. 1087-2(n).

CHAPTER 4

ADEQUACY OF THE EXISTING REGULATORY STRUCTURE FOR GSEs

This chapter examines the adequacy of the existing regulatory structure for GSEs with respect to the principles of financial safety and soundness regulation established in Chapter 2 of this report. This examination reveals that, to varying degrees, the structure falls short of the necessary elements for effective safety and soundness regulation.

ADHERENCE TO PRINCIPLES OF EFFECTIVE REGULATION

Primacy of financial safety and soundness regulation

The primary focus of GSE regulation should be financial safety and soundness. Unfortunately, not all of the current regulators have explicit statutory authority that makes financial safety and soundness oversight the primary regulatory goal. Indeed, one GSE, Sallie Mae, has no safety and soundness regulator.

HUD has general regulatory powers over Fannie Mae and Freddie Mac to ensure that the housing-related public purposes of the two GSEs are accomplished. Historically, HUD's regulatory focus has centered on considerations of housing goals and the risk to the Government, but with different emphases at different times. Thus, financial safety and soundness oversight of Fannie Mae has not always been the primary regulatory goal.

Three of the four statutory duties of the Finance Board relate to safety and soundness oversight. They are:

(1) to supervise the FHLBanks;

(2) to ensure that the FHLBanks remain adequately capitalized and able to raise funds in the capital markets; and

(3) to ensure that the FHLBanks operate in a safe and sound manner.

The remaining statutory directive requires the Finance Board to ensure that the FHLBanks carry out their housing finance mission.

The FCA has statutory safety and soundness authorities, and the legislative history surrounding the 1985 reorganization of the FCA clearly suggests that Congress intended for the FCA to be a financial safety and soundness regulator. Moreover, Congress

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patterned FCA enforcement powers after those of commercial bank regulators.

Regulatory stature

Stature helps to determine how effective a regulator can be in the financial safety and soundness oversight of GSEs. As discussed in Chapter 2, stature is determined by a number of factors including a clear political mandate to ensure financial safety and soundness, financial independence, and the regulator's slate of authorities, particularly its ability to establish and enforce meaningful capital standards. The current regulatory structure for the GSEs lacks some of these necessary factors.

HUD needs a clear statutory mandate to make safety and soundness its primary regulatory role. As discussed below, HUD does not have a well-defined set of regulatory powers for effective financial safety and soundness regulation. It would benefit from clarification of its financial safety and soundness regulatory powers. Also, HUD should have the ability to charge Fannie Mae and Freddie Mac assessments to cover the costs of effective regulation. Alone among current regulators, HUD does not have this authority.

In contrast to HUD, the FCA has clear enforcement authorities, a statutory mandate to ensure safety and soundness, and the ability to fund its operations through assessments on the FCS. The Finance Board also has sufficient enforcement authorities and the ability to charge the FHLBanks to cover the costs of regulation. However, the Finance Board needs its regulatory goal clarified in statute in order to make safety and soundness its primary focus.

Use of private market mechanisms for risk assessment

None of the GSE regulators currently uses private market mechanisms, such as NRSROs, to supplement their ability to oversee the financial safety and soundness of the GSEs. The use of private market mechanisms would help to diminish the chances of regulatory failure by providing an independent assessment of risk exposure to the Federal Government. Any inconsistencies between the private and public sector assessments of risk would need to be resolved. This resolution process would serve to enhance the body of regulatory knowledge, thereby reducing risk to the Government.

Basic regulatory powers for financial safety and soundness

The current regulatory structure does not embody a consistent set of basic regulatory powers for the financial oversight of each GSE. The Treasury and the Department of Education have minimal regulatory authority over Sallie Mae. The Finance Board has broad regulatory powers. The FCA's powers parallel those of bank regulators and are adequate for effective financial oversight of the FCS; however, its powers over Farmer Mac are not sufficient. To avoid any questions concerning its authority, HUD should be provided with a statutory listing of enumerated regulatory powers.

Capital standards. With respect to Fannie Mae and Freddie Mac, the current statutory leverage ratio is inappropriate as an overall measure of capital adequacy. This ratio does not reflect off-balance sheet activity, and it is not linked to the risks undertaken by Fannie Mae and Freddie Mac. Consequently, the statutory capital requirements cannot be used effectively by HUD to cover the risks undertaken.

The FCA has significant discretion in determining the appropriate level of capital and the risk weighting of assets for the FCS. However, at-risk stock is included in capital by statute. Future legislation might again convert at-risk stock to the functional equivalent of debt, as happened in 1987. Also, it is not certain that the FCA has the authority to set appropriate capital standards by regulation for Farmer Mac.

The Finance Board has the ability to set risk-based capital standards, although it has not yet done so. It currently requires a Bank Systemwide maximum debt-to-equity ratio of 12-to-1. The ability of the Finance Board to determine risk-based capital standards for the FHLBanks, however, is constrained somewhat by the statutory stock purchase requirement for advances. The stock purchase requirements are related to most, but not all, on- and off-balance sheet items.

Financial disclosure. All of the GSEs are subject to financial disclosure requirements. Information on GSE activities, financial statements, and risk assessment are reported regularly to regulators.

Books and records and internal controls. FCA and the Finance Board both have the authority to prescribe rules and standards to ensure the adequacy of internal controls and information systems. HUD's existing regulations do not specifically address its authority in this area.

Examination authority. The FCA, the Finance Board, and HUD have statutory authority to examine the books and records of the GSEs they regulate. The FCA examines System institutions and

Farmer Mac at least once each year and uses the bank regulatory CAMEL rating system to rate institutions for capital adequacy, asset quality, management and administration, earnings, and liquidity. The Finance Board recently began its annual examinations of the FHLBanks. These examinations are designed to cover the FHLBanks' credit/collateral positions, funding operations, management, and regulatory compliance.

HUD, in contrast, has yet to conduct an examination of Fannie Mae or Freddie Mac. HUD is in the process of contracting with the private sector to conduct an initial examination and to set up procedures and criteria for future examinations. However, HUD itself may have difficulty conducting quality examinations in the future without the ability to offer the competitive salaries necessary to attract highly qualified examiners.

The Secretary of the Treasury has access to all Sallie Mae books and records and is required by statute to report annually to the President and Congress on the financial condition of Sallie Mae.

Enforcement authority. Enforcement authority varies markedly among the GSE regulators. The FCA has essentially the same enforcement powers that bank regulators have. The Finance Board has many of the important enforcement authorities needed by a financial safety and soundness regulator, but lacks explicit authority for others. HUD believes that its general regulatory authority gives it sufficient enforcement authority over Fannie Mae and Freddie Mac. The Treasury has no enforcement powers regarding Sallie Mae.

Cease and desist orders. The FCA has statutory authority to issue cease and desist orders if it determines that an institution is engaging in an unsafe or unsound practice, or is violating a law, rule or regulation. The FCA has increasingly made use of this authority. The Finance Board, on the other hand, does not have explicit statutory authority to issue cease and desist orders. However, the Finance Board believes that it has implicit authority to do so based on its authority to issue orders necessary to fulfill the provisions of the Federal Home Loan Bank Act. To date, the Finance Board has not issued a cease and desist order.

Other enforcement powers. In addition to cease and desist orders, the FCA's other enforcement powers include the authority to suspend or remove directors and officers and require payment of civil money penalties.

The Finance Board also has the power to suspend or remove directors and officers for cause and limit dividends. However, the Finance Board has not developed a set of guidelines or regulations that would trigger early intervention at predetermined levels of safety and soundness.

Receivership and conservatorship. The FCA has the power to appoint a conservator or receiver for any FCS institution under a set of strict conditions comparable to those of bank regulators. However, it is unclear that FCA has the authority to appoint a conservator or receiver for Farmer Mac. The Finance Board has the power to put a FHLBank into receivership and conservatorship under its powers to liquidate and reorganize the FHLBanks. HUD, however, does not have explicit receivership and conservatorship authority over Fannie Mae and Freddie Mac.

Other regulatory powers.

Prior approval. HUD, the Finance Board, and the FCA (with the exception of the FCA's authority over Farmer Mac) all have prior approval authorities over new activities. All three regulators have used their prior approval authority (HUD only recently) for safety and soundness concerns.

Low-and moderate-income requirements. HUD currently requires 30 percent of Fannie Mae's annual mortgage purchases to be secured by housing for low- and moderate-income families.

Budgets. The Finance Board analyzes and approves FHLBank budgets.

Officers and directors. For each of the 12 FHLBanks, the Finance Board appoints six of the directors and supervises the election of the remainder, for a total of at least 14 directors. The Finance Board designates the chair and vice-chair of each FHLBank's board of directors. The Finance Board approves the compensation of FHLBank presidents and directors. Neither HUD nor the FCA have similar authorities with respect to the officers and directors of the GSEs that they regulate.

Strategic planning. The Finance Board has established a strategic planning directorate, which has as its primary responsibility the strategic planning for the Bank System. HUD and the FCA do not have authorities in this area.

Mergers or liquidations/reorganizations. The Finance Board may liquidate or reorganize a FHLBank whenever it finds such action will aid the efficient and economical accomplishment of the FHLBank Act.

The FCA may require an association to merge with another association if it determines, with the concurrence of the board of the supervising bank, that an association has failed to meet its outstanding obligations or failed to conduct its operations in accordance with the Act.

CONCLUSIONS AND RECOMMENDATIONS

HUD does not have financial safety and soundness as its primary regulatory goal and, therefore, suffers from regulatory conflict. HUD also lacks the appropriate regulatory funding mechanism. To avoid controversy over HUD's regulatory authority, it would be beneficial to make the scope of its regulatory authorities more explicit.

The financial safety and soundness oversight of Sallie Mae is nonexistent. No Federal agency has the safety and soundness authorities necessary for effective financial oversight. The Treasury should be given increased oversight responsibilities, consistent with the safety and soundness authorities of the other regulators.

The Finance Board has the necessary regulatory powers and the stature needed to effectively regulate the financial safety and soundness of the FHLBank System. However, its statute should be modified to make its financial safety and soundness mission its primary regulatory role.

Congress restructured the FCA in 1985 to make it more of a financial safety and soundness regulator. The FCA has as its primary goal the safety and soundness regulation of the FCS, and it has the regulatory powers and stature to be an effective safety and soundness regulator for the FCS. With regard to Farmer Mac, the FCA also has safety and soundness authorities, although it does not have general rule-making authority. The FCA needs to have increased authorities over Farmer Mac.

CHAPTER 5

IMPACT OF GSE OPERATIONS ON FEDERAL BORROWING

FINDINGS

The Treasury's analysis of the impact of GSE operations on Federal borrowing in the 1990 Report using the flow-of-funds framework was updated for this report. This analysis was supplemented with an extensive review of the economic literature related to the impact of GSE operations on Federal borrowing costs. Based on this analytical work, the Treasury's conclusion remains as stated in the 1990 Report:

> One might expect the GSE financing activities to raise the cost of Federal borrowing. Given their close, favored relationship with the U.S. Government, the GSEs generate credit market instruments that for market participants are relatively close substitutes for Treasury securities.
>
> The available statistical evidence does not show that GSE borrowing has had a direct effect on the cost of Federal borrowing. Major macroeconomic trends that cannot be separated from the impact of GSE financing activities offset any potential upward pressures on Federal borrowing costs from GSE activity.[1]

RE-ASSESSING THE IMPACT ON TREASURY BORROWING COST

The statistical evidence for the last decade does not show that GSE borrowing had a direct effect on the cost of Federal borrowing. In fact, Chart 3 shows that GSE financing activities were inversely associated with observed movements in Treasury yields during much of the period, or that net new GSE borrowing rose while Treasury yields fell.

The inverse relationship reflects broad macroeconomic trends the impacts of which more than offset whatever pressures arose from GSE borrowing. Large inflows of foreign savings mitigated any upward pressures on Treasury borrowing rates. Lower inflationary expectations led to declines in the inflation premium that domestic and foreign investors required. The support for U.S. credit markets from foreign inflows and lower

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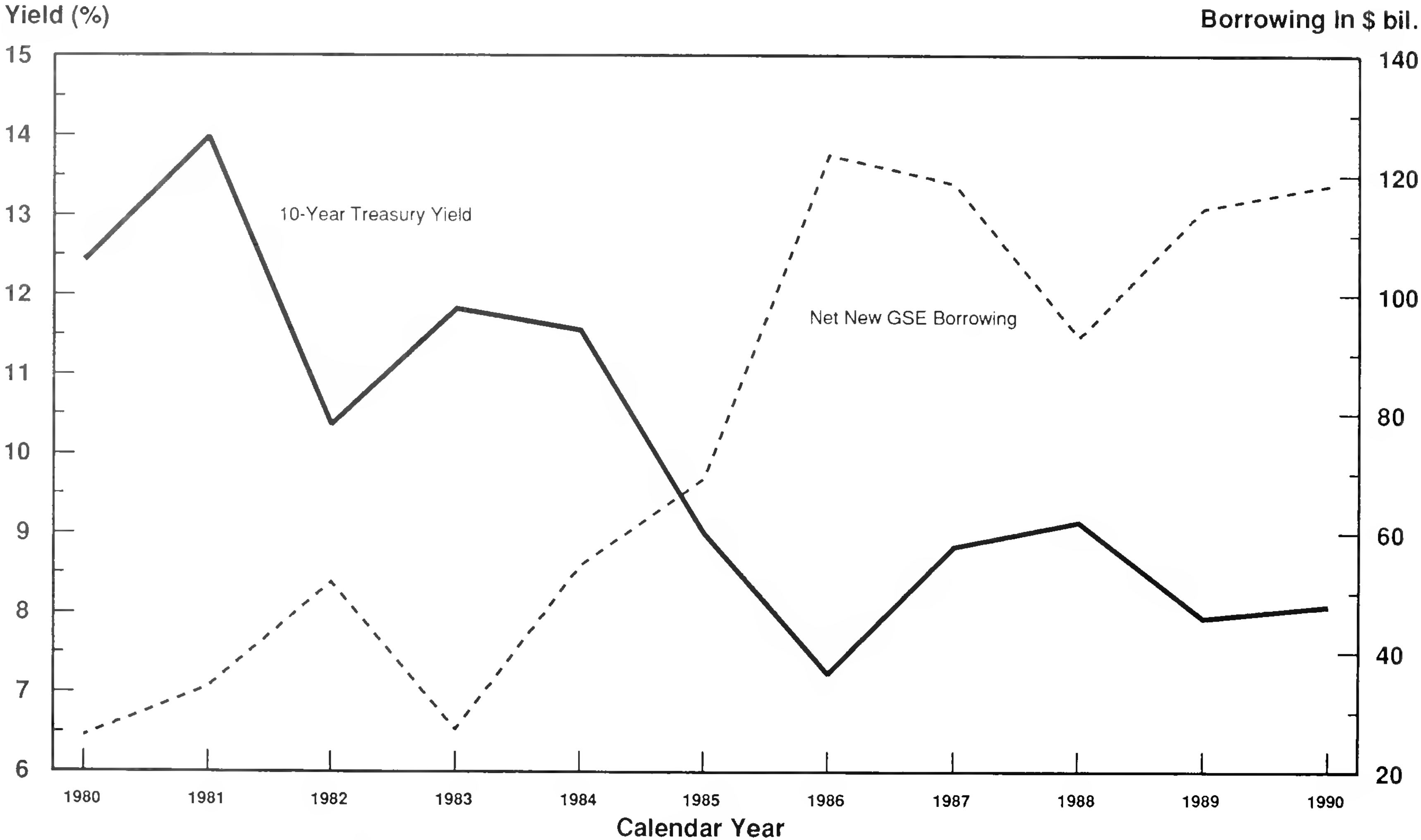
[1] 1990 Report, p. 27.

Chart 3

Treasury Yields Versus Net New GSE Borrowing



Source: Yield on Last Trading Day of Year, Treasury
Federal Reserve Board Flow-of-Funds (Adjusted).

inflation led to lower interest rates, including mortgage yields.[2]

In addition, total borrowing declined substantially after peaking in 1986 and helped to obscure whatever pressures GSE borrowing may have exerted on Federal borrowing costs. Also, a large part of the increase in GSE obligations in the 1980s resulted from exchanges (or swaps) of whole mortgages for GSE mortgage-backed securities (see Chart 4). These swaps led to increases in outstanding GSE obligations without increasing the total demand for credit.

Using the results of portfolio models, inferences can be drawn that GSE operations raise Federal borrowing costs, although measures of the cost impacts vary greatly. GSE borrowing converts the illiquid, high-risk debt of GSE-assisted sectors into new highly liquid capital market securities that bear a GSE guarantee against default. Converting private-sector obligations into GSE obligations generates securities that are close substitutes for Treasury securities. From 1980 through 1990, $830.8 billion of these close substitutes for Treasury securities were issued, or 45 percent of the $1,851.0 billion in net new issuance of Treasury debt held by the public (see Table 3 in Chapter 1). From 1986 through 1990, net additions to GSE securities as a percent of net additions to Treasury securities averaged 62.2 percent per year.

One portfolio model that analyzed the substitution between Federal obligations and broad categories of other debt concluded that an increase in the volume of private borrowing can lead to a small increase in Treasury yields, perhaps one basis point or less.[3] The broad categories of financial assets used in this model did not include GSE securities. One could argue, however, that GSE borrowing has a greater impact on Treasury yields because the characteristics of GSE securities result in a higher degree of substitutability between GSE and Treasury securities than between the other debt categories that were used in the study and Treasury securities.

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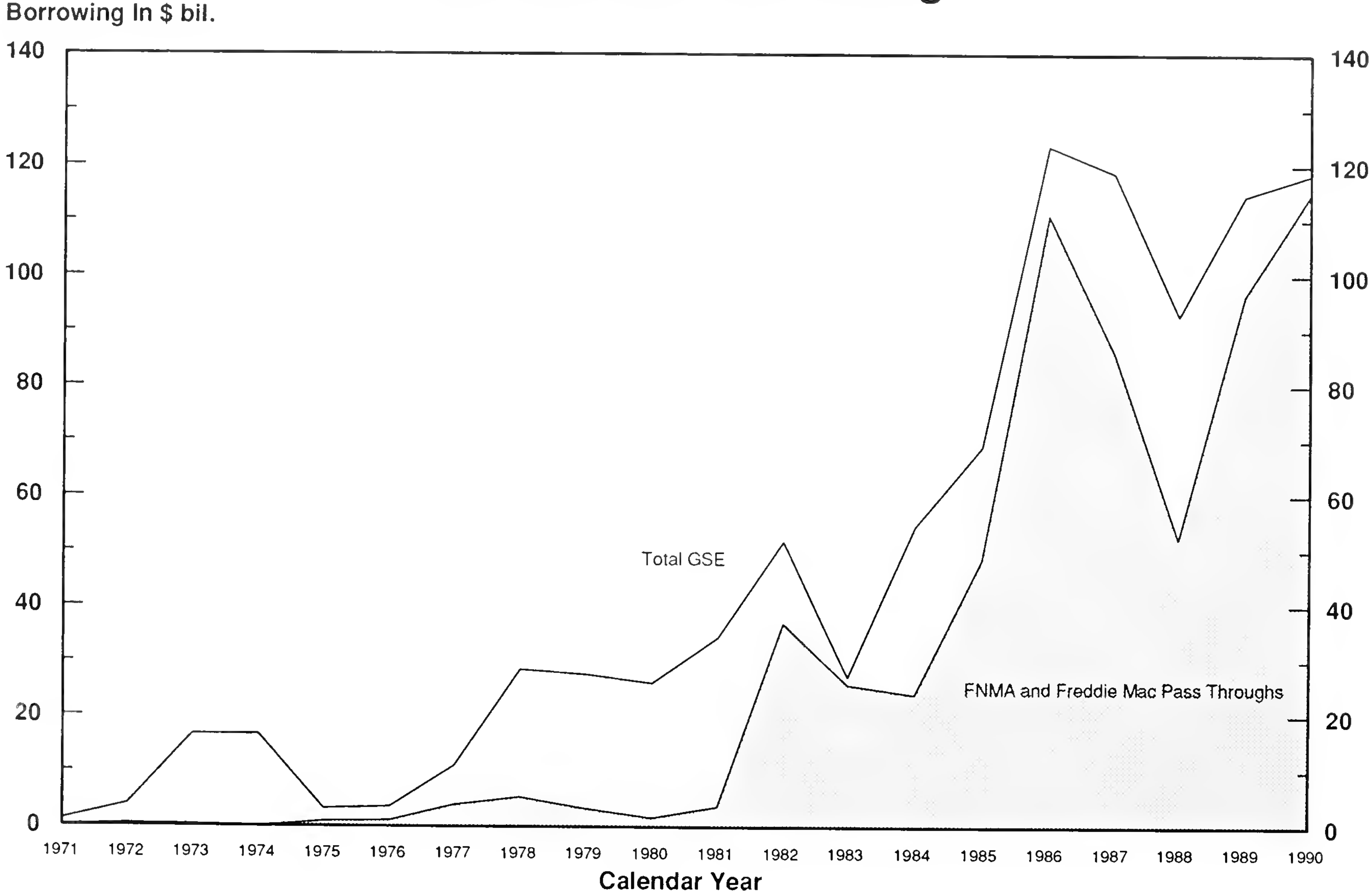
[2] Foreign saving as a percent of the available saving pool in the U.S. shot upward from a mere .2 percent in 1982 to a peak of 18.9 percent in 1987 before it fell to 11.1 percent in 1989. Inflation in the Consumer Price Index fell sharply from its 1979 peak of 13.3 percent to a low of 1.1 percent in 1986 before it accelerated to 6.1 percent in 1990.

[3] Jeffrey Frankel, "Portfolio Crowding-Out, Empirically Estimated," Quarterly Journal of Economics, 100, Supplement, 1985, pp. 1041-1065.

Chart 4

Net New GSE Borrowing



Source: GSE Balance Sheets

Another model based on portfolio theory implied that increases in the volume of GSE securities relative to Treasury securities would have a strong impact on the difference between GSE and Treasury yields in the short run, but not in the longer run.[4] The analysis concluded that arbitrage would reduce the impact of relative quantities on the spread between GSE and Treasury yields over time. In the absence of highly segmented markets, any impact of a change in relative quantities on a specific yield spread would eventually be arbitraged across all categories of securities. Over the longer run, prepayment risks, liquidity considerations, and other technical factors are likely to dominate spreads among categories of financial assets.

IMPACT OF GSE OPERATIONS ON OVERALL INTEREST RATES

If GSE borrowing were to increase the total demand for credit, the overall level of interest rates could rise.[5] For example, if GSEs increase the flow of credit into housing, consumer borrowing for goods, such as refrigerators and carpets that are complements of purchases of homes, could increase. Including the impacts of complementary demands, simulations from flow-of-funds models constructed in the early 1970s, before mortgages were securitized on a large scale, show that interest rates rose, perhaps by as much as 10 basis points per $1.0 billion of incremental credit demand in the mortgage markets, in response to higher overall expenditures associated with an increase in GSE borrowing.[6]

The advent of Government National Mortgage Association and GSE mortgage-backed securities in the early 1980s improved the efficiency of mortgage markets and reduced mortgage rates by

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[4] Barry Bosworth, Andrew Carron, and Elizabeth Rhyne, <u>The Economics of Federal Credit Programs</u> (Washington, D.C.: The Brookings Institution, 1987), Appendix A, p. 203.

[5] A number of econometric studies have attempted to measure the impact of fiscal policy in general on interest rates, but the empirical tests have reached different conclusions and have not resolved the controversy. For a review of some of these studies, see either U.S. Treasury Department, "The Effects of Deficits on Prices of Financial Assets: Theory and Evidence", <u>Treasury Bulletin</u>, March 1984, or The Congressional Budget Office, <u>Deficits and Interest Rates: Theoretical Issues and Empirical Evidence</u>, (Washington, D.C.: The Congressional Budget Office, 1989).

[6] Bosworth, Carron, and Rhyne, <u>op. cit</u>., Appendix A, pp. 184-186.

around 30 basis points.[7] Lower mortgage yields helped to stimulate demands for home purchases and purchases of complementary goods and services. Yet, more recent flow-of-funds models, including the quarterly Federal Reserve model, estimate only small impacts on Treasury yields, in contrast to results of the earlier models.[8]

CONCLUSIONS

The law of supply and demand would suggest that GSE net new demands for credit should raise Treasury borrowing costs. Additionally, GSE borrowing that lowers the relative borrowing costs of subsidized sectors and stimulates increases in complementary credit demand can raise total borrowing and pressure the overall level of interest rates higher. However, as observed in the 1980s, upward pressure on interest rates generated directly or indirectly by GSE operations can be offset by macroeconomic forces, including inflows of foreign savings, declines in inflationary expectations, structural changes, and reductions in the demand for credit from other sectors of the economy. The substitution of GSE securities for Treasury securities can raise Treasury yields relative to GSE yields, but over time the impact of substitution can be arbitraged across all categories of securities.

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[7] Patric Hendershott and James Shilling, "The Impact of the Agencies on Conventional Fixed-Rate Mortgage Yields," Journal of Real Estate, Finance, and Economics, Vol. 2 (June 1989), pp. 2: 101-115.

[8] "The Effects of Mortgage-Related Securities on Corporate Finance," a study prepared by the Federal Reserve Board of Governors, August 1986, pp. 29-31.

CHAPTER 6

S&P EVALUATION OF THE SAFETY AND SOUNDNESS OF THE GSEs

The Treasury contracted with S&P for an analysis of the financial safety and soundness of the GSEs. S&P has assessed the likelihood that a GSE might not be able to meet its future obligations from its own resources and has expressed that likelihood as a traditional credit rating. These ratings are not intended to supersede the AAA assessments S&P has given the various securities of the GSEs presently trading in the market.

There have been a number of studies that have examined the relationship between credit ratings and actual default experience.[1] Although statistical assumptions and methodologies differ among the studies, they show clearly that credit ratings and actual default experience are strongly inversely related. For example, as Table 1 shows, the 15-year cumulative default rate for corporate bonds that had initially been rated Aaa was 1.7 percent. The rates rise to 6 percent for the low end of investment grade (Baa) and to nearly 30 percent for B-rated firms.

Table 1

15-year Cumulative Default Rates for Corporate Bonds vs. Initial Credit Rating (1970-1989, percent)

Rating	15-yr. Default Rates
Aaa	1.7
Aa	1.9
A	2.4
Baa	6.1
Ba	18.0
B	28.7

Source: "Corporate Bond Default Rates, 1970-1989", Moody's Investor Service, April 1990.

[1] See for example, Edward I. Altman, "Measuring Corporate Bond Mortality and Performance", July 1988, and "Corporate Bond Defaults and Default Rates, 1970-1989", Moody's Investor Service, April 1990.

APPENDIX

FINAL REPORT

CONTRACT NO. TOS-91-4

Evaluation of Safety and Soundness

Farm Credit System
(including the Farm Credit Banks and Banks for Cooperatives)

Federal Home Loan Bank System

Federal Home Loan Mortgage Corporation

Federal National Mortgage Association

Student Loan Marketing Association

April 8, 1991

TABLE OF CONTENTS

INTRODUCTION

The Treasury Department has asked Standard & Poor's (S&P) to provide an assessment of the financial safety and soundness of certain government sponsored enterprises (GSE's). The GSE's to be included are:

Farm Credit System
(including the Farm Credit Banks and Banks for Cooperatives)
Federal Home Loan Bank System
Federal Home Loan Mortgage Corporation
Federal National Mortgage Association
Student Loan Marketing Association

This report provides an assessment of the financial safety and soundness of these GSE's in the form of a rationale and a risk to the government credit rating for each GSE expressed in traditional letter symbols. The report also summarizes the major factors which lead to each conclusion, including analysis of key balance sheet information. Finally, balance sheet information relevant to the analysis is provided for each GSE.

In making the determination of the degree of risk involved in the operations of each GSE, S&P has incorporated the evaluation of such factors as credit risk, interest rate risk, management and operations risk, and business risk where these factors are relevant to the GSE.

In our analysis S&P assumed that the GSE operates within its authorizing legislation and we assume that there is no infusion of cash from the federal government. Authorizing legislation provides some benefits to the GSE such as attractive cost of funds but also can be constricting in that the GSE can only do business as defined in the legislation and cannot diversify if warranted by economic conditions or other factors. This is S&P's approach to assessing the risk to the government of these GSE's and other entities with implicit federal support.

The assessment of the financial safety and soundness is presented in the form of a rating symbol which is used by S&P. Our rating symbols range from 'AAA' at the highest end to 'D' at the lowest. 'D' is automatically assigned when an issuer defaults on its debt or files for bankruptcy protection. S&P has provided debt ratings publicly since 1923 and uses the following symbols as defined below:

'AAA': Debt rated 'AAA' has the highest rating assigned by S&P. Capacity to pay interest and repay principal is extremely strong.

'AA': Debt rated 'AA' has a very strong capacity to pay interest and repay principal and differs from the highest rated issues only in small degree.

'A': Debt rated 'A' has a strong capacity to pay interest and repay principal although it is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than debt in higher rated categories.

'BBB': Debt rated 'BBB' is regarded as having an adequate capacity to pay interest and repay principal. Whereas it normally exhibits adequate protection parameters, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity to pay interest and repay principal for debt in this category than in higher rated categories.

'BB': Debt rated 'BB' has less near-term vulnerability to default than other speculative issues. However, it faces major ongoing uncertainties or exposure to adverse business, financial or economic conditions which could lead to inadequate capacity to meet timely interest and principal payments.

'B': Debt rated 'B' has a greater vulnerability to default but currently has the capacity to meet interest payments and principal repayments. Adverse business, financial or economic conditions will likely impair capacity or willingness to pay interest and repay principal.

'CCC': Debt rated 'CCC' has a currently identifiable vulnerability to default, and is dependent upon favorable business, financial and economic conditions to meet timely payment of interest and repayment of principal. In the event of adverse business, financial or economic conditions, it is not likely to have the capacity to pay interest and repay principal.

'CC': The rating 'CC' is typically applied to debt subordinated to senior debt that is assigned an actual/implied 'CCC-' debt rating.

'C': The rating 'C' is typically applied to debt subordinated to senior debt which is assigned an actual/implied 'CCC-'. The 'C' rating may be used to cover a situation where a bankruptcy petition has been filed, but debt service payments are continued.

'D': Debt rated 'D' is in payment default. The 'D' rating category is used when interest payments or principal payments are not made on the date due even if the applicable grace period has not expired, unless S&P

believes that such payments will be made during such grace period. The 'D' rating also will be used upon the filing of a bankruptcy petition if debt service payments are jeopardized.

Plus (+) or minus (-): The ratings from 'AA' to 'CCC' may be modified by the addition of a plus or minus sign to show relative standing within the major rating categories.

An S&P rating expresses our opinion of credit quality in the form of these letter symbols. A credit rating is not a recommendation to purchase, sell or hold a particular security. The rating performs the isolated function of credit risk evaluation. The rating does not mean that S&P has performed an audit, nor does it attest to the authenticity of the information provided by the GSE and upon which the rating may be based. Ratings do not create a fiduciary relationship between S&P and users of the ratings as there is no legal basis for the existence of such a relationship.

Over time, ratings may change as a result of the dynamics of an ongoing business as well as economic and other factors. A rating can be provided on a one-time basis as of a specific date or can be monitored over time. These GSE ratings are being provided on a one-time basis.

The risk to the federal government evaluation as expressed in our traditional rating symbols is comparable to ratings used to assess other issuers. S&P uses the same symbols to express ratings for entities including corporations, municipalities, sovereign governments and financial institutions. While each type of issuer has unique characteristics, the rating symbols as defined above apply to all.

Each GSE evaluation was done by a committee of analysts, including senior members of the Ratings Group. In accomplishing this work S&P used teams of analysts who had expertise in the areas related to the business of each GSE. For example, for housing related GSE's, analytic expertise was utilized from three different rating departments which deal in residential mortgages and lending. Bringing these teams together provided the best input to evaluate these GSE businesses.

These GSE's have been evaluated on a going concern basis, assuming that they are ongoing, operating businesses. A variety of quantitative and qualitative factors were analyzed and considered in the determination of the risk to the government rating. The resulting credit opinion was determined by reviewing all relevant factors - no one factor drives the conclusion. All factors are interactive and weighed within their relevance to the creditworthiness of the particular GSE.

S&P has followed four of the five GSE's since 1983. The Federal Home Loan Banks were added in 1986. While the risk to the investor relies on the implicit support of the federal government and not the underlying financial situation of the GSE, S&P has monitored the underlying credit quality of the GSE's. In 1987, the U.S. Department of Housing and Urban Development asked S&P to provide such an evaluation of the credit quality of the Federal National Mortgage Association.

In 1989 the Senate Banking Committee asked S&P to provide an assessment of the underlying credit quality of certain GSE's. Using public information, S&P provided our assessment of the risk to the government for the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Federal Home Loan Banks, the Farm Credit System and the Student Loan Marketing Association. Since that time these evaluations have been widely discussed and reported. The evaluations provided for this report used the same methodology S&P used previously.

FARM CREDIT SYSTEM
(including the Farm Credit Banks and Banks for Cooperatives)
(FCS or System)

Risk to Government Credit Rating: 'BB'

Rationale

The Farm Credit System has undergone significant change in the last few years and continues to undergo change. Many of the factors contributing to its near collapse in the mid-1980's have been improved: the System is consolidating, working towards better enforcement of more uniform underwriting and loan review standards, instituting more sophisticated interest rate risk management procedures, and moving towards instituting quasi-market discipline mechanisms. However, the monoline character of its business, coupled with weak capitalization and earnings power, and continued poor asset quality lead S&P to the below investment grade assessment on the Farm Credit System. Even a moderate farm recession is likely to cause some banks to require assistance, leaving the system as a whole undercapitalized. If the "joint and several" provision proves difficult to enforce or a substantial amount of the capital stock is redeemed at par, the requirement for assistance could be heavier.

Factors Supporting Conclusion.

Market Position

The FCS was created in 1916 to serve as reliable source of agricultural credit, when alternative sources were few. This remains its stated mission though within the prescriptions for making safe and sound loans. It now provides a diminished share of about 25% of agricultural credit, with commercial banks providing 36% and FmHA, insurance companies and pension funds providing the remainder. The ability to borrow at preferential rates helped it gain market share from 1950 to the mid-1980's. Especially during the 1973-1982 period, its policy of pricing loans on the basis of the average cost of funds, rather than the marginal, allowed it to offer loans at below market rates in a rising rate environment, fueling a burst of market share gains. That pricing policy worked in reverse when rates started to fall. Its objective after 1987 has been to price loans at a spread over the marginal cost of funds. With regulatory pressure to build retained earnings, the banks have had an incentive not to under-cut the competition in pricing. Thus, the erosion in market share has not been reversed.

During the period in the mid-1980's when FCS rates were above-market, it was presumably the least creditworthy who did not leave the system. The clientele is, however, far more creditworthy than that of the FmHA.

The FCS has another competitive advantage over the majority of the so called "ag banks" which are small and have limited legal lending limits. The size of its banks allows it to focus on loans to the larger of the small and medium-sized farmers. It has also been a major player in real estate lending, which is riskier than shorter term production loans.

Business Risk

The overriding risk for the FCS is that of being a monoline provider of credit. Notwithstanding the geographic diversity of the system, and the ability to provide the full spectrum of farm related loans, loan quality remains partly dependent on the health of the highly volatile farm economy. Farm incomes and land values are regularly buffeted by factors largely beyond farmers' control, such as weather, commodity prices and farm price support programs.

An additional business risk is the prospect of losing market share to competitors. Because many Farm Credit Banks' (FCB) need to build capital, they cannot capitalize on their cost of funds advantage to maintain share through favorable pricing. In addition, as the trend toward ever-larger farms continues, the FCS's natural market of medium-sized farmers will dwindle. The FCS could find itself at a competitive disadvantage to larger financial institutions able to service large farms. Losing share presents the hazard that the banks will be loathe to cut infrastructure apace, but will compete instead by tiering down to less creditworthy customers.

Structural Risk

One element of risk to the government is that the FCS operates with very little in the way of external or market sources of discipline, although this has been identified as a problem by the System and some progress has been made in evolving towards some form of discipline. The equity holders are likely to remain weak disciplinarians. It is inherent in a cooperatively owned structure that the borrowers could be subject to the conflicting incentives of keeping the borrowing terms favorable for themselves and their friends, and maintaining the safety of their capital. The latter incentive may be overshadowed by the former. In any case, their equity stake is very small, often just the lesser of $1000 or 2% of their loan amount, and is added to the loan principal.

There is also little in the way of market discipline through adjustment of funding costs. True, spreads widened on bonds when the FCS was perceived to be on the brink of failure but this did not address risk taking by individual banks. The FCB's can charge differential rates to the Associations to which they lend funds based upon risk but may be reluctant to do so except in cases of extreme underperformance.

Another risk is that the regulatory and other watchdog bodies have until now proven reluctant to enforce discipline at the very early stages. Many of the tools at hand are really a form of final solution that can lead to the closing of a bank. The Farm Credit Administration (FCA) can issue cease and desist orders and the Funding Corporation can deny funds. While extremely sensitive to making the heavy hand of central control felt, the System is developing towards improving its early disciplinary mechanism.

Interest Rate Risk

Asset/liability management has been vastly improved since the mid-1980's, but some moderate interest rate risk is likely to remain due to structural factors that cannot be managed away.

Foremost is the difficulty of managing prepayment risk. During the mid-1980's a mismatch emerged when a substantial number of borrowers left the System. They prepaid their loans, leaving the banks with a large proportion of high rate non-callable long term debt. In part, fear of losing their capital when the banks were troubled caused many borrowers to flee. The fact that capital stock is now more statutorily "at risk" means that this motivation for prepayment remains to some extent, though the ability to retire capital is contingent on the financial health of the bank. The other major factor that led to prepayments in the past, the availability of lower cost loans elsewhere, is less likely to come into play, however, because of the shift to marginal cost pricing. It should be noted that prepayment data are not available. While a database is being built, the predictive value may be limited by the greater diversity of factors affecting prepayments of farm loans compared to home mortgages.

Another factor affecting the ability to match maturities is the fact that variable rate loans are not tied to any market index, but are set at the discretion of management. The Funding Corporation, acting in an advisory capacity on asset/liability management can assist the banks on the long term advisability of moving rates in lockstep with the market, but has little power to dictate practice. However, there appears to be significant consensus among the banks to move rates with the market.

Asset/liability management is done on a very decentralized basis, compounding the difficulty of obtaining asset/liability reports with any assurance of comparability of data. Modeling capacities vary from institution to institution.

Manageable risk appears to have come down substantially since the mid-1980's, largely due to marginal cost or market pricing, as well as the consultation resource represented by the Funding Corporation and its ability to utilize derivative products and issue at a variety of maturity dates. On a gap analysis, the banks are slightly asset sensitive in the short term and matched longer term. The greatest vulnerability remains prepayment risk, and the will to maintain pricing spreads in a rising rate environment.

Much of the recent widening of the net interest margin has been due to a reduction in the drag from nonperforming assets. If the interest lost on problem loans is added back to interest income, the margin appears to have been remarkably steady for the past five years. In addition, the run-off and repurchases of high cost debt in the open market have helped reduce funding costs. If trends towards marginal cost pricing and reducing funding costs continue, the margin could stabilize between 2.0% and 3.0%. Some of the FCB's have already achieved those levels.

Credit Risk

By its very nature as a monoline provider of finance to a highly cyclical industry, the FCS takes a very high degree of credit risk. In addition, both because of its mandate to be a consistent provider of credit and because it is restricted from other types of lending, the FCS may be less likely to pull back from lending into an agricultural downturn than a more diversified lender would.

Underwriting standards appear to have been much improved since the mid-1980's. While setting underwriting standards remains the responsibility of the individual associations a consensus is being built around some guiding principles. For instance, land loans, which had often been underwritten purely on a collateral value basis through the mid-1980's, must now focus on the borrower's income capacity to meet payments. Loan to value ratios are limited to 85% of value. This is a very liberal limit; however, practice is more conservative. In addition, regulators and management seem to have an understanding that one of the problems in the mid-1980's farm depression was that land prices had outstripped the economic value of the land and that a recurrence of this phenomenon must be prevented.

In general, the recognition of problems in underwriting practices has been beneficial; nevertheless, underwriting standards appear to be uneven bank to bank, with some having more stringent controls and review procedures than others. Once again, the variability results from both variations in management sophistication and willingness to conform to outside pressures, and is inherent in any fragmented, confederate structure.

Another major concern relating to credit risk is concentrations of risk to single borrowers. The Associations other than the Banks for Cooperatives (BC'S) must limit loans to one borrower to 20% of capital, a very lenient standard. The BC's can have even greater concentrations of capital. According to the FCA, most Associations have some loans at their regulatory lending limit. The Farm Credit Administration is in the process of rewriting regulations on this point.

Even assuming good underwriting standards, agricultural lending would be very risky in the sense that there can be a great variability in loss experience over the course of an agricultural cycle. The financial troubles of the farm economy in the 1980's were the worst seen since the Great Depression. During the prior 50 years, cycles had been shallower. The 1980's recession was caused by a sharp fall in crop prices, and a sharp drop in farm exports, coupled with the bursting of a speculative bubble that had sent farm land prices far above its economic value as measured by the present value of any reasonable income assumptions. There can be no assurance, however, that an equally severe recession will not occur again.

To put some dimension on the extent of the problems in the mid-1980's, nonperforming assets (including 90 days past dues) for the FCS peaked at 16% in 1986. Net chargeoffs were about $3.5 billion cumulatively, or about 33% of peak nonperforming assets, and 5% of total loans. In addition, the cumulative income lost from the nonperforming assets since 1985 was about $2.5 billion. It should be noted that the Banks for Cooperatives fared much better and suffered relatively few problems.

On the surface the loss and nonperforming rates for the FCS were more favorable than those turned in by the major commercial bank agricultural lenders. However, while commercial banks' nonperformers have fallen sharply in the last few years, the FCS's have remained extremely high at 9.5%, despite four very good years for the farm economy. Chargeoffs were also lower than at commercial banks even though small commercial banks were granted regulatory forbearance to spread losses over several years.

The continued poor loan quality stems from a pronounced tendency to carry bad loans rather than write them off and/or foreclose. Within the portfolio of nonperforming loans, nonaccrual loans and Other Property Owned or Other Real Estate (ORE) have declined substantially, as many of the loans migrated to restructured loan status. The restructured loan category, which is loans that have been restructured on concessionary terms and are now performing according to those terms, is about 4% of loans, a much higher percentage than that found at commercial banks. A stipulation to restructure loans if that is a less costly option than foreclosure appears to have been interpreted as a requirement to favor the restructuring option. That the FCS also faces greater legal obstacles in foreclosing than do the commercial banks may also serve to encourage restructuring.

	1990	1989	1988	1987	1986
% Nonaccruals/loans	5.13	5.03	6.47	9.97	12.13
% Restructured/loans	3.72	4.67	4.00	2.52	0.62
% Nonaccrual+restructured/loans	8.85	9.70	10.47	12.49	12.75
% Nonperforming assets(NPA)/ Loans + ORE	9.46	10.53	11.61	13.92	14.37
% NPA + 90 days/loans	9.78	11.13	12.60	15.14	16.42
% All high risk loans/loans	13.95	14.77	16.78	21.93	24.05
% Interest lost/nonperforming loans(npl)	3.73	5.41	7.89	11.62	10.03
% Reserve/loans	2.96	3.11	3.61	5.62	6.24
% Reserve/NPA	31.10	29.29	30.71	39.71	42.61
% Reserve/npl	33.47	32.08	34.49	45.02	48.93
% Reserve/high risk total	21.09	20.87	21.26	25.21	25.47
% Net chargeoffs	0.04	-0.01	0.79	0.91	2.06
% Recoveries/chargeoffs	77.42	102.96	36.17	38.92	18.65

The reserve for loan losses is thin relative to potential losses in a severe agricultural recession. Interpretations of Generally Accepted Accounting Principles (GAAP) standards on reserves can vary. In general, reserves must be adequate to cover probable losses inherent in the portfolio. Depending on the economic assumptions built into the case for probable loss levels, reserve requirements can be set at varying levels. S&P believes that current reserve levels, are unlikely to suffice in a period of significant adversity.

Profitability

Most of the strength of profits since 1988 has been generated by reversals of the reserve for loan losses. However, underlying profitability also returned in 1988 and has improved in each year to what are now respectable but modest levels. Assuming a normalized level of provisions of about 0.25% of loans, operating profitability represented a 0.73% return on assets in 1990. This is largely a reflection of a reduced drag from nonperforming assets and expense controls. Overhead expenses have dropped to 54% of revenues in 1990, from 130% in 1987. Even normalizing for the effect of the reduced drag from nonperforming loans (adding back income lost from nonperforming loans), expenses show considerable improvement. Further improvements in profitability can come from widening the net interest margin, which may require a discipline of holding loan pricing above 2.0% over the marginal cost of funds, as well as some additional retirements of high cost debt from the early 1980's. In addition, further consolidations in the System could also yield cost savings.

	1990	1989	1988	1987	1986
% Net Interest Margin (NIM)	2.00	1.67	1.28	0.79	1.07
% NIM + income loss on loans	2.28	2.11	1.97	1.98	2.08
% Expense/revenues	53.81	64.56	81.87	130.53	89.01
% Expense/revenues +inc.loss	47.98	52.46	55.59	57.46	48.94
% Expense/loans	1.47	1.46	1.42	1.43	1.27
% Return on Assets (adjusted)	0.73	0.41	0.05	-0.50	-0.06
% Return on Assets (stated bet. extr. items.)	1.02	1.11	1.42	-0.03	-2.55

Funding

FCB's do not suffer liquidity crises in the way that commercial banks do because the FCS's implicit government support makes it virtually immune from a crisis of confidence. FCB's fail either because they become insolvent in an accounting sense, bringing regulatory intervention, or because they run out of collateral (including loans or securities), which is required to be able to tap System debt.

	1990	1989	1988	1987	1986
% Capital stk.+surp./Debt	6.90	6.01	3.68	2.44	2.33
% Cash+Investments/FCS debt	19.05	20.28	16.37	17.02	18.27
% Cash,Invest.+loans/FCS debt	110.00	110.00	111.00	112.00	111.00

Capital

By any definition of capital, FCS remains thinly capitalized for the riskiness of its business line. The higher cyclicality of agricultural lending compared to many other lines of lending, plus the FCS's tendency to carry the bad loans through rough times indicates the need for even more capital than many other types of monoline lenders. That need is offset by the consideration that given the FCS's agency status in accessing the capital markets, capital is not needed for the maintenance of investor confidence in order to retain access to funds. Capital is therefore more exclusively a loss absorbing reserve. A farm recession of the same severity as the mid-1980's would likely leave the System short of capital by regulatory standards.

It is important to discuss what is included in capital. Protected capital, which was stock purchased by borrowers prior to October 1988 upon which repayments are to be made at par, is clearly not at risk and should be classified among liabilities. Capital stock, which was contributed by borrowers as a condition of borrowing subsequent to October 1988, is statutorily "at risk" but can be retired at par when the borrower repays his loan as long as the institution is adequately capitalized. Thus, S&P considers capital stock a weaker form of capital, and look primarily to the surplus account for a measure of core capital strength. Restricted capital, or the accrued payments into the newly established insurance fund, is also a form of capital but while the insurance fund is intended to be drawn upon before "joint and several" liability is triggered in the potential event of default by an FCB, it is also intended to be used to repay Financial Assistance Corporation (FAC) preferred stock and redeem protected capital should a bank prove unable to do so.

In addition, in evaluating risk to the government, we consider the likelihood of repayment by banks receiving financial assistance from FAC. Of the $4 billion borrowing capacity of FAC, $1.3 billion has been used so far. S&P expects that only moderate use would be made of the remaining $2.7 billion of the FAC facility. Payment on the 15 year FAC bonds is made by the federal government for the first five years, 50% by the government and 50% by the FCS for the second five years and 100% by the FCS for the last five years, with the FCS responsible for the repayment of principal. The insurance fund can be channeled for this purpose. If the insurance fund target does not surpass the original goal of 2% of Systemwide Debt, or about $1.1 billion (up from $438 million now) the fund may not be available to do more than help repay FAC preferred stock over the intermediate term. Of the current $438 million fund, $350 million will be used to repay FAC assisted to the Federal Land Bank of Jackson.

Stronger forms of capital have been increasing in recent years, with protected capital being converted to "at risk" borrowers' capital, and surplus growing to 4.3% from 2.1% in 1986. "At risk" capital stock and surplus have grown to 6.3% of assets. Under the most generous interpretation of capital, including restricted capital, the ratio is 7.0%. Each bank is required to reach 7% permanent capital against risk adjusted assets by 1992. While the System as a whole surpasses that level, certain individual banks may not be in compliance. Loan leverage (capital stock + surplus + reserves/loans) remains very high, however, and the percentage of capital and reserves has not increased significantly since 1985, because most retained earnings have been generated from taking reserves back into income as loan quality improved.

	1990	1989	1988	1987	1986
% Capital stock+surplus + restricted capital/assets	7.24	5.88	3.27	2.16	2.07
% Cap. stk.+surp./assets	6.55	5.33	3.27	2.16	2.07
% Cap. stk.+surp.+reserve/loans	11.09	9.83	7.53	8.19	8.73
% Cap. stk.+surp.+res.-1/3 nonperformers/loans	7.92	6.30	3.61	3.47	3.86
% Surplus/assets	4.31	3.58	2.90	2.16	2.07
% Nonperforming assets/cap. stk.+surp.+ reserve	84.47	98.90	109.98	102.52	97.79
% Cap. stk.+surp./Debt	7.42	6.01	3.68	2.44	2.33

Another farm recession, may lead to losses that would reduce capital below adequate levels and require government assistance. The extent of that assistance will depend not only on the depth of the recession but potentially on the use of the "joint and several liability" provision. Given the apparent independent-mindedness of many of the Associations and banks, and the experience of the mid-1980's there may be resistance if this provision is ever invoked. The FCB's are by no means homogeneous in their financial strength. Therefore, it is not enough to assess the financial strength of the consolidated system. Several of the FCB's are currently very weak (Spokane, Louisville, St. Paul, Omaha, Western), and some operating with assistance from FAC at present. These are likely to experience significant stress in the event of even a moderate farm recession.

The extent to which government assistance may be needed for the FCS will also be interrelated with the level of federal farm support programs during periods of stress. Support programs have been at historically high levels during the last four years, contributing indirectly to the improved health of the FCS.

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Farm Credit System (Consolidated)

Balance Sheet

($ in millions)	1990	1989	1988	1987	1986
Assets					
Real estate loans	29,416	30,245	32,182	34,346	NA
Intermediate loans	10,673	10,020	9,256	9,927	NA
Loans to co-ops	11,083	10,442	9,990	8,225	NA
Total loans	51,172	50,707	51,428	52,498	58,249
Reserves	1,516	1,578	1,858	2,951	3,635
Cash	290	273	238	299	437
Investments	10,392	11,236	8,703	9,109	10,976
Total assets	63,515	63,954	61,616	62,238	70,101
Avg. earning assets	61,671	60,316	61,636	64,303	73,259
Avg. assets	63,735	62,785	61,927	66,170	74,967
Liabilities					
Total FCS debt	56,072	56,739	54,621	55,275	62,478
Protected capital	1,241	1,683	3,289	* 3,684	* 4,188
Capital stock	1,422	1,117	227	0	0
Surplus	2,739	2,291	1,785	1,346	1,453
Restricted capital	438	350	0	0	0

**Capital stock prior to October 1988 could automatically be retired at par upon retirement of debt and will be considered protected capital for purposes of this worksheet.*

Farm Credit System (Consolidated)

Income Statement

($ in millions)	**1990**	**1989**	**1988**	**1987**	**1986**
Net interest income	1,235	1,006	787	509	781
Negative provision	41	285	681	196	-1,798
Nonint. inc. (before gains)	157	148	112	97	129
Noninterest expense (oper)	749	745	736	791	805
Nonrecurring income	31	67	79	-12	-233
Net income (stated, before extraordinary item)	647	695	878	-17	-1,913
***Net income (adjusted)**	466	258	33	-333	-46

**Net income assuming a positive provision for loan losses of 0.25% of loans in each year and before nonrecurring income.*

Farm Credit System (Consolidated)

Loan Quality

($ in millions)	**1990**	**1989**	**1988**	**1987**	**1986**
Nonaccrual loans	2,627	2,553	3,329	5,234	7,066
Restructured loan	1,902	2,366	2,058	1,321	363
Other property owned (ORE)	346	468	663	876	1,101
90 days past due	131	259	432	515	1,037
Total npa + 90 day	5,006	5,646	6,482	7,946	9,567
Other high risk	2,182	1,915	2,259	3,758	4,705
Total high risk	7,188	7,561	8,741	11,704	14,272
Chargeoffs	93	169	647	799	1,662
Recoveries	72	174	234	311	310
Net chargeoffs	21	-5	413	488	1,352

Farm Credit Banks

(September 30, 1990)

($ in millions)

	Columbia	St. Paul	Spokane	Baltimore	Springfield	St. Louis	Omaha*	Western	Wichita	Louisville	Texas
Loans	4,033	5,780	2,688	3,051	1,654	3,411	3,605	5,043	3,352	3,567	3,616
Allowance	153	248	87	36	40	117	213	122	163	76	106
Assets	5,366	6,914	3,302	3,666	2,010	4,204	4,237	6,185	4,059	4,045	4,923
FAC pfd. stk.		133	89				107			90	
Capital stock	37	117	25	109	74	20	10	159	54	133	208
Surplus	587	230	-26	336	162	333	199	246	419	283	373
Net income(bef. extr.)	61	66	4.2	14.0	6.2	35.2	48.2	13.1	54.8	61.9	30
Nonaccrual loans	174	432	405	27	18	255	237	600	113	137	169
Restructured	42	906	40	17	2	75	320	109	172	111	9
ORE	16	144	22	9	5	19	25	53	17	4	51
Net chargeoffs	1.6	4.4	2.4	-0.4	0.0	4.0	1.7	3.9	-0.5	-12.3	11.9
Ratios (%)											
Capital stk.+surpl/assets	11.63	5.02	-0.03	12.14	11.23	8.40	4.93	6.55	11.65	10.28	11.80
Allowance/loans	3.79	4.29	3.24	1.18	2.36	3.43	5.91	2.42	4.86	2.13	2.93
Npa's/loans	5.75	25.64	17.41	1.74	1.51	10.23	16.14	15.11	9.01	7.06	6.33
Npa's/cap.+surpl.+res.	29.86	249.08	544.19	11.02	11.47	74.26	137.91	144.59	47.48	51.22	33.33
ROA	1.58	1.27	0.18	0.53	0.41	1.10	1.15	0.27	1.33	2.12	0.79
NIM	3.02	2.09	1.39	2.30	2.66	2.50	2.42	1.60	2.69	3.24	2.24
Net chargeoffs	0.10	0.10	0.12	-0.02	0.00	0.16	0.05	0.10	0.00	-0.47	0.43

* *December 31, 1990*

FEDERAL HOME LOAN BANK SYSTEM
(FHLBanks or System)

Risk to the Government Credit Rating: 'AAA'

Rationale

The assessment of the Federal Home Loan Bank System reflects its strong risk adjusted capitalization, adequate levels of profitability, excellent credit loss experience, and the continuing importance of the role it plays in providing liquidity to residential mortgage lenders. Although the thrift industry, the primary user of the System's services in the past, has been contracting substantially, and is expected to continue to do so, the System still plays a role in serving the surviving portions of the industry. In addition, the liberalization of membership standards enacted by the Financial Institutions Reform and Recovery Act of 1989 (FIRREA) enables the System to attract new members. While profitability measures will likely suffer from reduced demand for advances, and capital levels have been restricted by heavy contributions in support of the thrift resolution process, the System as a whole should remain strong. Asset risk is minimal, given that advances to members are secured and collateralization standards are conservative. Even should pressures stemming from the desirability of increasing dividends to maintain current membership and attract new members lead to increased asset leverage, capitalization measures should remain appropriate for the rating category, given management's continuing commitment to strong capitalization.

Factors Supporting Conclusion.

Business/Market Position

The Federal Home Loan Bank System raises funds on a consolidated basis for its twelve member banks, which funds are then advanced to members (primarily thrifts) of the twelve banks. Given the radical contraction in the size of the thrift industry (the industry currently has about $1 trillion in assets, down from $1.4 trillion at its peak, and deposits of $850 billion, down from $1 trillion), the System's business position has been under pressure. At year-end 1990 advances outstanding dropped 17% to $117 billion from $142 billion a year earlier, reflecting the loss of membership from thrift failures and reduced financing needs for the thrift industry as a whole.

While Savings Association Insurance Fund (SAIF) insured thrifts must still belong to their local Federal Home Loan Bank, state chartered Bank Insurance Fund (BIF) insured thrifts have the option to belong or not. There was concern that voluntary members might leave the system after enactment of the Financial Institutions Reform and Recovery Act in August 1989, but few have chosen to do so to date. FIRREA took virtually all retained earnings (about $3 billion, including Financing Corporation (FICO) contributions) from the FHLBanks to support the thrift resolution process, mandated ongoing contributions (about $300 million a year) to support the process, and mandated funding for affordable housing (initially $50 million a year), all of which have led to reduced profitability and consequently lower dividends at the 12 banks, making membership less attractive.

FIRREA also opened up membership to commercial banks and credit unions, and about 116 new members have joined, with Norwest bank (assets of $12 billion) being the largest, and another 72 applications in process. Given the requirement that members contribute capital to the FHLBank to which they belong, as well as concern about the possibility of future contributions to support deposit insurance from the twelve banks, it does not appear likely that there will be a rush of larger commercial banks into the system. As a result, the FHLBank system is likely to remain primarily associated with the thrift industry, with its fortunes tied to that industry. As a result, further shrinkage in FHLBank advances is highly likely, at least for the immediate future. While this scenario could have adverse consequences upon System earnings, it would not jeopardize the System's capacity to make full and timely payment of consolidated obligations.

Management

The Federal Home Loan Bank System falls under the oversight of the Federal Housing Finance Board (FHFB), which was created by FIRREA. The recently created Board has assembled a staff in Washington and will focus upon the broad issues that will determine the future effectiveness of the System. Although the Board has the authority to influence to some degree the operating policies of the individual FHLBanks, there is no reason to believe that this influence would deter the FHLBanks from operating in the conservative manner that has long characterized their performance.

While the Board has broad oversight responsibilities for the System as a whole, it does not manage the individual banks within the System. S&P has met in recent years with the managements of most of the twelve individual banks. They are professional bankers who run their individual banks on conservative principles, within the mandate of the system as a whole to facilitate home finance. They are sharply sensitive to risk management issues as these relate to both credit and interest rate risk, and all, to varying degrees, are sensitive to the need to "market" their banks' services to present and potential members.

Asset Quality

The quality of the System's assets has historically been excellent, with no bank ever having had a credit loss. The banks are secured lenders to their members, and all establish their own lending policies within guidelines established by the FHFB. Although these policies vary slightly among the banks, requiring varying degrees of overcollateralization to secure advances, all are conservative. A provision of FIRREA, which restricts the type of collateral a bank may accept to secure advances, has served to further standardize lending practices among the banks. There is some exposure to the FSLIC Resolution Fund, since a few banks have taken FSLIC notes and yield maintenance agreements as collateral for advances. These notes, issued by FSLIC prior to 1989 primarily as part of the southwest plan, have become obligations of the Resolution Fund, which ultimately has recourse to the Treasury to meet its obligations. The FHLBank of Dallas has some $5 billion of this exposure, but S&P feels comfortable with the credit of the Resolution Fund because of its access to the Treasury.

In addition to the advances, the banks have investment portfolios, heavily invested in fed funds, repos and mortgage backed securities (MBSs). The fed funds are mostly overnight, with some maturities out to three months. Credit exposure is monitored and managed by the banks. Repos are secured and overcollateralized. Collateralized mortgage obligations (CMOs) held for investment are rated and are short tranches. In summary, the credit risks on the balance sheets of the twelve banks are limited. Barring a collapse in the value of mortgages, which constitute most of the collateral securing advances, credit losses in any material degree are not expected or likely.

Profitability

The System as a whole and each of the constituent banks have historically been good earners, reflecting their attractive funding as GSE's, their very low expense ratios, and their non-tax paying status. In effect, the banks have substantial control over their level of profitability, since even at a mark up to their own cost of funds they could still offer attractive financing to their members. The contribution of a significant proportion of their capital as a result of FIRREA and the ongoing contributions that they must make will impede profitability in the future, and has already begun to do so in 1990, when ROA fell to

.83% from 1.00% the year earlier. Nonetheless, even should profitability drop further, on a risk adjusted basis it would likely remain consistent with the rating.

Funding/Interest Rate Risk Management

The banks are principally funded by the proceeds from the consolidated obligations, supplemented with deposits placed by their members. Managements are keenly aware of interest rate risk, and the banks are closely matched in their assets and liabilities, substantially limiting exposure to changes in rates. They are protected against prepayment risk by borrower penalties that protect the banks for at least 90% of their exposure from prepayments. Given "agency status" for the consolidated securities, as well as very strong stand alone fundamentals, funding is a strength of the System as a whole and of the twelve member banks.

Capital

Even after contribution of some $3 billion for support of the thrift resolution process, the System as a whole and each FHLBank remains well capitalized, especially given their secured lending practices. Average equity/assets fell to 7.45% in 1990 from 8.36% a year earlier, reflecting the heavy thrift resolution process contributions, but these are now completed. Further contributions will come from ongoing earnings. In the face of the drop in both earnings and capital, many of the individual banks have switched to stock from cash dividends. Although the banks do not have any regulatory capital standards to which they must adhere, a regulation under which they operate mandates a 12:1 consolidated debt to equity ratio. Even should this regulation be changed to allow somewhat greater dividending and consequently higher leverage, it would be unlikely that the banks individually or the System as whole would fall below capital standards consistent with the rating, given management's sensitivity to the desirability of a strong capital position.

Although S&P's analysis has focused upon a consolidated view of the System as a whole, it is important to add that the twelve Federal Home Loan Banks each individually exhibit strong credit quality. Although the banks are independently managed and influenced by different economic conditions in their respective markets, their financial profiles are similar. They all have a history of very strong asset quality (no credit losses), good profitability (with a range of ROAs of 0.59% to 1.03% in 1990), and strong capital levels (which ranged from 5.67% to 9.54% at 1990 year-end).

Federal Home Loan Banks (Combined)

Balance Sheet
($ in millions)

Period End:	1990	1989	1988	1987	1986
Assets					
Advances	117,100	141,807	152,799	133,058	108,645
Cash and investment	45,389	35,196	18,530	18,132	20,054
Other assets	3,197	3,793	3,534	2,987	2,980
Total assets	165,686	180,796	174,863	154,177	131,679
Liabilities					
Deposits	31,114	25,913	19,050	20,355	26,952
Other borrowings	1,471	80	383	639	417
Consolidated oblig.	118,519	136,798	136,513	116,383	89,590
Other liabilities	2,957	3,800	3,397	3,055	2,912
Total liabilities	154,061	166,591	159,343	140,432	119,871
Equity	11,625	14,205	15,520	13,745	11,808
Tot. liabilities & equity	165,686	180,796	174,863	154,177	131,679

Federal Home Loan Banks (Combined)

Income Statement

($ in millions)

	1990	1989	1988	1987	1986
Interest income	14,414	17,026	13,514	11,279	10,630
Interest expense	12,899	14,951	11,899	9,979	9,525
Net interest income	1,515	2,075	1,615	1,300	1,105
Provision for loan losses	0	0	0	0	0
Other operating income	277	303	294	442	742
Other expense	371	599	458	403	370
Pretax income	1,421	1,779	1,451	1,339	1,477
Tax expense	0	0	0	0	0
Income before extraordinary	1,421	1,779	1,451	1,339	1,477
Extraordinary items	47	4	3	-11	-15
Net income	1,468	1,783	1,454	1,328	1,462

Federal Home Loan Banks (Combined)

Ratio Analysis

	1990	1989	1988	1987	1986
Profitability/Efficiency					
Net income ($ in millions)	1,468.00	1,783.00	1,451.00	1,328.00	1,462.00
Change in NI from previous year (%)	-17.67	22.63	9.49	-9.17	35.00
Return on assets (%)	0.85	1.00	0.88	0.93	1.20
Return on equity (%)	11.37	12.00	9.94	10.39	13.34
Non-int income/non-int exp. (%)	74.66	50.58	64.19	109.68	200.54
Overhead/adjusted oper. inc. (%)	20.70	25.19	23.99	23.13	20.03
Non-int exp/avg assets (%)	0.21	0.34	0.28	0.28	0.30
Effective tax rate (%)	0.00	0.00	0.00	0.00	0.00
Asset Quality					
Net chargeoffs/advances (%)	0.00	0.00	0.00	0.00	0.00
Non-performers/advances	0.00	0.00	0.00	0.00	0.00
Liquidity					
Advances/assets (%)	70.68	78.43	87.38	86.30	83.25
Capital					
Avg. equity/avg. advances (%)	9.98	10.06	10.24	10.53	10.99
Avg. equity/avg. assets (%)	7.45	8.36	8.89	8.94	8.99
Avg Asset Growth (%)	-2.58	8.09	15.11	17.28	117.51
Avg Advance Growth (%)	-12.12	3.06	17.79	21.68	122.05
Avg Equity Growth (%)	-13.10	1.57	14.53	16.61	116.85

Federal Home Loan Mortgage Corporation (Freddie Mac)

Risk to Government Credit Rating: 'A+'

Rationale

The assessment reflects the company's consistent financial results, sound management and operating strategies, and solid capitalization relative to the risk profile of its total mortgage portfolio. Freddie Mac's financial and operating strategies are prudent as they focus on proactive credit risk management and containment of interest rate risk. Credit and interest rate revenue sources tend to complement each other and the resulting dynamic reduces earnings volatility under many volume and interest rate scenarios. Operations are vulnerable to declining national or regional housing values. A major risk to Freddie Mac is a sustained economic disruption with a resulting decline in housing values. Resources available to Freddie Mac to pay worst case losses include existing capital as well as the values in its off balance sheet guarantee business. Going forward, S&P anticipates that Freddie Mac will continue to build capital both in an absolute sense and relative to the growth of the portfolio.

Factors Supporting Conclusion:

Management and Corporate Strategy

S&P's opinion with regard to Freddie Mac's management and overall policies, planning and control functions is quite positive. For the most part, long tenure is the case for many senior managers. Department heads are generally knowledgeable, open, and well informed.

S&P's generally favorable assessment of the company's planning and risk management functions is qualified primarily to the extent that the company's multi-family program was not well managed prior to 1989. Management has subsequently dealt with problems promptly and openly and has established policies and organizational structures to attempt to avoid a recurrence of the problem.

Credit Risk

The cornerstones of Freddie Mac's financial and operating strategies have been the proactive management of credit risk and the ongoing confinement of interest rate risk. Freddie Mac's consistent historical outperformance of other residential mortgage lenders and residential

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real estate financial guarantors in the areas of delinquency and default related losses seems primarily to be a function of a corporate-wide commitment to credit quality. S&P believes that this is evidenced by, among other things, Freddie Mac's willingness to suffer periodic credit policy related market share deterioration.

Credit policy is set at the highest management levels for all components of the risk management function. These include: underwriting guidelines, credit risk sharing, quality control, seller/servicer management, and geographic diversity. This commitment to credit risk management has not, over the long term, materially constrained growth or impaired the company's overall public purpose mission.

Interest Rate Risk

Over 95% of Freddie Mac's servicing portfolio of about $338.2 billion (12/31/90) was financed with pass through securities, resulting in an off balance sheet sale and a shifting of interest rate risk to the participation certificate investor. The company's on balance sheet mortgage portfolio ($16.8 billion net of match funded multi class securities as of 12/31/90), and associated interest rate risk exposure is viewed by Freddie Mac as something of an undesirable but manageable cost of doing business. It allows Freddie Mac to achieve scale and improve liquidity for new securities. As a benchmark, Freddie Mac's retained portfolio is capped at 5% of the total servicing portfolio. Management is committed to maintaining this relationship. It believes that a larger exposure relative to the sold portfolio would expose the firm to unnecessary risk and potentially severe losses, were interest rates to move by several hundred basis points. To better manage its interest rate risk, and measure its run-off or liquidation value, Freddie Mac calculates its market value net worth on a quarterly basis and subsequently stresses this calculation against a range of interest rate movements.

As part of the Treasury Department study of certain GSE's, Freddie Mac's model as of December 31, 1989 indicated that a 300 basis point increase in rates would reduce present value net worth to $4.5 billion. Correspondingly, a 300 basis point decrease would lower present value net worth to $3.5 billion. On this date market value net worth was $4.5 billion while book value was $1.9 billion. This moderate sensitivity principally benefits from the present value of the company's servicing "guarantor fee" component and the fact that its value is negatively correlated with the retained portfolio.

However, as with any modeling or valuation exercise, underlying assumptions play an important role. For example, Freddie Mac assumes that existing reserves represent a reasonable proxy for future losses. Nevertheless, based on its review of key model variables, S&P believes that Freddie Mac is about as insulated from shifting interest rates as it can be, given the nature of its business.

Business Review

Freddie Mac's only competition in the conforming conventional market is the Federal National Mortgage Association (Fannie Mae). Outstanding "insured" debt for this duopoly was in excess of $690 billion at the end of 1990, about 25% of total outstanding residential debt. The residential mortgage debt growth rate was about 10% form most of the 1980s. S&P's expectations for growth going forward is not unlike the current consensus of industry analyst opinion. Near term, lender and finance company capital adequacy constraints in combination with heightened investor credit quality concerns should contribute to continued Fannie Mae and Freddie Mac volume growth. Longer term, changing demographics could reduce demand for housing, potentially resulting in a lower volume and slower property appreciation in relation to historical trends.

Market share ($ in billions)

Year	FNMA Purchases	FHLMC Purchases
1985	$45.2	$44.0
1986	91.4	103.5
1987	83.8	76.8
1988	78.0	44.1
1989	92.3	78.6
1990	120.7	75.5

Given the incremental risks associated with a monoline insurance product, concentrations and development of insurance writing activity by state, Metropolitan Statistical Area (MSA), loan to value ratio, various product types and loan features were reviewed. Concentrations or positions in higher class risk categories ultimately result in more stringent loss assumptions as it pertains to S&P's capital adequacy assessment. For example, given the limited development history associated with the various adjustable rate mortgage products, especially payment shock concerns in a prolonged rising rate environment, ARM foreclosures in S&P's depression model are assumed to take place at a rate of 1.5 times that of fixed rate foreclosures, all other variables held equal.

As of December 31, 1990, Freddie Mac had off balance sheet contingent credit loss liabilities of about $316.3 billion plus mortgage assets totaling $21.8 billion. These were distributed by loan type as follows:

Single family fixed	$287.5
Single family ARM	38.4
Multi-family and other	12.3
	$338.2

Characteristic	Fixed*	ARM*	Multi-Family*
95 LTV	5.2%	8.5%	0.5%
80-90 LTV	14.5	22.3	7.7
<80 LTV	80.3	69.2	91.8
Current avg LTV	54.0	73.0	n.a.
Buydown	2.4%	0.4%	n.a.
2-4 units	4.8	4.5	n.a.
Non Owner	3.5	2.4	n.a.
Condos	5.9	11.3	n.a.

*expressed as a percentage within the sub-category.

When viewed in aggregate and compared to other residential lenders and financial guarantors, Freddie Mac has had an advantage in the area of historical credit risk management. Freddie Mac partially credits its thrift versus mortgage banker mix dominance as a positive contributing factor, since thrift strategy was primarily to swap and hold its participation certificates. As this mix changes, additional risk may be introduced. Because Freddie Mac is aware of this, S&P does not anticipate any material change in loss experience going forward.

By Freddie Mac's own admission, multi-family underwriting was woefully inadequate. In particular, Freddie Mac was not selective of its customers and borrowers and it was not adequately servicing its loans. While accounting for only about 3% of the total portfolio, it becomes more significant when viewed in terms of operating leverage at 4:1. Delinquencies (90 days or more) have risen to 0.56% for the fourth quarter of 1990 from 0.19% in 1986. Correspondingly, foreclosures in progress have increased from 0.55% in 1986 to 2.09% as of December, 1990. However, as previously mentioned, Freddie Mac has taken what appear to be reasonable steps and is aggressively addressing the problems.

The adjustable rate mortgage (ARM) sub-portfolio is second to the multi-family sub-portfolio in terms of incremental risk. ARM's comprise about 11.4% of Freddie Mac's total servicing portfolio. Current ARM loss development is moderate at a three month delinquency rate of 0.31% and foreclosures in process of 0.44% at the end of the fourth quarter of 1990. Nevertheless, concerns about this product's limited development history and potential payment shock related foreclosures relative to fixed rate loans remain.

A sometimes overlooked but extremely beneficial relationship from a credit loss perspective is Freddie Mac's relationship with the mortgage insurance industry. A comparison between Freddie Mac and the Mortgage Insurance Companies of America (MICA) of defaulted fixed rate 95% LTV business written in selected years demonstrates this point.

Ever to Date Defaults Processed by Year of Origination
Fixed Rate 95% LTV's

Year of Origination	FHLMC	MICA*
1981	13.1%	15.5%
1982	14.0	18.8
1983	8.6	12.8
1984	5.5	9.0

*Includes 95% LTV ARMS.

The interesting implication here is that Freddie Mac's underwriting as it pertains to this category of loans originated in 1981 and 1982 appears to have been only slightly better than the mortgage insurance industry's underwriting efforts. However, Freddie Mac's earnings greatly benefitted from its first loss mortgage insurance protection. Compared with Freddie Mac's exceptional earnings track record, the mortgage insurance industry in 1987 alone had underwriting losses (losses incurred less premiums earned) totaling almost $1 billion dollars.

Operations are vulnerable to declining national or large regional housing values. A major risk to Freddie Mac is a sustained economic disruption with a resulting decline in housing values. In addition, revenue is primarily a function of a monoline product line - residential mortgages. This constraint limits product and revenue stream diversification and can curb opportunities for reallocation of resources.

Finally, Freddie Mac is mandated to provide liquidity for low and moderate income housing with a reasonable economic return. Freddie

Mac's underwriting guidelines today are prudent and mitigate concern for taking on "risky" low and moderate income housing loans but Congressional sentiment and Freddie Mac's activity should be monitored going forward. Monitoring is made easier through Freddie Mac's organizational structure which designates an office specifically for affordable housing initiatives.

Operating Performance

In terms of most measures of growth, earnings and profitability, Freddie Mac has historically been a consistent performer in the finance and the financial service sectors. Notwithstanding its cost of funds and other GSE operating advantages, it has never had an unprofitable quarter in its history. Freddie Mac can access the capital markets in good times and bad, at favorable terms, because of its GSE status. In addition, the quality of earnings is strong as a generally conservative accounting approach is taken. Most importantly from an interest rate risk and capital adequacy standpoint, net interest margin and overall earnings are relatively less volatile as the dynamics of float, premium, and portfolio revenue tend to complement one another. Going forward, S&P's expectation is for continued consistent financial service sector operating performance.

Revenue ($ in millions)	1985	1986	1987	1988	1989	12/90
Int. and discount	1,349	1,336	1,114	1,442	2,016	2,053
Int. on investments	254	357	627	833	1,169	1,258
Mgt. and gty income	188	301	472	465	572	654
Total int. expense	1,291	1,394	1,422	1,783	2,668	2,692
Net int. margin	500	600	791	957	1,089	1,273
Other income	22	72	14	(5)	34	31
Provision for mtg loss	79	120	175	204	278	474
Administrative exp	81	110	150	194	217	243
Net income before tax	362	442	480	554	628	587

Operating revenue can be generally classified into three areas: management and guarantor fees, retained portfolio interest income, and float income. About 52% of total revenue in 1989 was guarantor fee related. This relationship was virtually unchanged through 1990 at 51%. Explosive growth for this revenue category was fueled by corresponding residential debt securitization growth. While sharp declines in interest rates will, from time to time, result in refinancing growth and reduction of the existing fee base, corresponding new guarantees should include many of those same canceled policies. S&P's expectation with regard to this scenario is for a minimal net impact.

1990 guarantor fee income grew by 14.3% on the strength of corresponding growth in the company's outstanding insurance guaranty (off balance sheet servicing portfolio) base. While there are reports from time to time of market share driven fee concessions, conversations with seller/servicers suggest that this is not a near term concern.

About 32% of 1990 total revenue, net of interest expense is float income. Freddie Mac benefits from about a thirty day float period between the time it receives principal and interest remittances from the respective servicers to the time that payments to investors are due. Going forward, market acceptance of the Gold P.C. will have the effect of reducing float income. Without consideration for volume gains, S&P's expectation is that this revenue loss will be offset by increased guarantor fee pricing.

Total interest income, net of interest expense, relating to the retained portfolio accounts for about 17% of total revenue. As previously mentioned, changes in interest income and float income due to interest rate movements tend to offset each other and result in lower net interest margin volatility. For example, revenue through 1989 was split 53% management fee, 32% float and 15% investment portfolio. As a result of a subsequent 100 basis point decline in short term rates, second quarter 1990 revenue was distributed as follows: management fee 53%, float 30% and investment portfolio 17%.

Freddie Mac's loan loss reserves are established for all loans serviced based upon general mortgage product type (single family fixed rate, ARM's, and multi-family) with higher reserve rates for the higher risk ARM's and multi-family. Annual reserve provisions are made for each year that the loan remains in the portfolio. Reserves as a percentage of total credit loss exposure for Freddie Mac have increased from about 0.15% in 1987 to about 0.19% at December 31, 1990. Also during this period, reserve provisions have comfortably exceeded losses actually incurred.

Capitalization

Over the past ten years, total assets have increased more than seven fold from $5.4 billion at year-end 1980 to $40.6 billion at December 31, 1990. Balance sheet growth has been funded primarily with debt. Over this period, the equity to total asset ratio has fluctuated between 4.0%

in 1980 and 5.5% at December 31,1990. The inclusion of $316.4 billion of guaranty related contingent liabilities results in an on and off balance sheet operating leverage ratio of about 167:1.

Recently, this ratio has been used by analysts attempting to draw comparisons with the failed thrift industry. While this relationship is a convenient starting point in a capital adequacy assessment, it is overly simplistic as it ignores several key capital adequacy determinants: underwriting quality, credit risk profile, and capital generation capabilities. Ultimately, capital is adequate or insufficient only within the context of the unique risks of a business.

S&P believes that, in borrowing from S&P's structured finance and private mortgage insurance criteria and the private mortgage insurance capital adequacy model, resources available to pay losses include not only capital and reserves, but also anticipated premium and investment income appropriately discounted for "depression" related expectations. In effect, the capital generation and recourse availability aspect of S&P's existing methodology is not unlike certain components of Freddie Mac's present value capital calculation. In addition to giving credit for resources to meet guarantee obligations which go beyond capital and reserves, about 18% of the total servicing portfolio is insured by the private mortgage insurance industry. Because a majority of these financial guarantors have claims paying ability ratings at or above 'AA', credit can be given for this most of this "ceded" insurance risk.

While overall exposure in the multi-family program is small compared to the total portfolio, ($10.7 billion in the fourth quarter of 1990) it is quite sizable relative to the capital base. Freddie Mac has, however, made appropriate response to the problem. It has reallocated key human and other resources to this area. In December 1989, as both delinquencies and losses trended upward, Freddie Mac altered its underwriting guidelines to lower LTV's to 70% and increase debt service coverage. In October 1990, Freddie Mac closed down new purchases of multi-family in its Cash Program. Virtually all losses were in the Cash Program.

For internal capital adequacy management purposes, Freddie Mac uses a mark to market (current property value) approach. The more conservative approach used by S&P and most capital market participants in estimating expected foreclosure frequency and loss severity relies on original loan to value ratios. This approach gives a lesser degree of property appreciation "credit" for loan seasoning. Based on the original LTV approach, Freddie Mac is able to withstand most loss scenarios. Therefore, S&P believes Freddie Mac to be in a strong capital position. S&P's expectation is that the company will continue to build capital going forward.

Federal Home Loan Mortgage Corp.

Balance Sheet
($ in millions)

	1990	1989	1988	1987	1986
Assets					
Cash and investments	6,808	5,397	5,525	4,670	3,612
Reverse repurchase agreements	9,063	5,765	9,107	5,859	4,495
Mortgages, net	21,395	21,329	16,815	12,258	13,012
Accounts receivable and other	2,199	1,772	1,509	1,325	144
Real estate owned	417	271	224	175	130
Unamortized mtge sales disc., etc	697	928	1,172	1,387	1,836
Total assets	40,579	35,462	34,352	25,674	23,229
Liabilities					
Due to PC investors	6,427	6,670	5,011	4,192	5,958
Total debt securities	28,375	24,102	24,846	17,461	13,378
Reserve for losses on sold mtges	495	347	289	238	197
Subordinated debt	2,566	2,045	2,036	2,086	1,997
Other liabilities	580	382	586	515	746
Total liabilities	38,443	33,546	32,768	24,492	22,276
Total shareholders' equity	2,136	1,916	1,584	1,182	953
Tot. liabilities & s'holders' equity	40,579	35,462	34,352	25,674	23,229

Federal Home Loan Mortgage Corp.

Income Statement
($ in millions)

	1990	1989	1988	1987	1986
Interest income	3,311	3,185	2,402	1,821	1,709
Interest expense	2,692	2,668	1,910	1,422	1,394
Net interest income	619	517	492	399	315
Other income					
Loan fees and service charges	654	572	465	392	292
Gain (loss) on sale of loans	-3	0	-2	13	31
Other	34	34	-3	1	38
Total other income	685	606	460	406	361
Other Expense					
General and administrative	243	217	194	150	114
Provision for loan and REO losses	474	278	204	175	120
Total other expense	717	495	398	325	234
Income bef taxes & extra items	587	628	554	480	442
Income taxes	173	191	173	179	195
Net income	414	437	381	301	247

Federal Home Loan Mortgage Corp.

Ratio Analysis

	1990	1989	1988	1987	1986
Profitability					
Net income ($ in millions)	414.00	437.00	381.00	301.00	247.00
Return on assets (%)	1.09	1.25	1.27	1.23	1.24
Return on equity (%)	20.43	24.97	27.55	28.21	28.52
G & A/Total Assets (%)	0.60	0.61	0.56	0.58	0.49
G & A/Total Revenues (%)	6.08	5.72	6.78	6.74	5.51
Effective tax rate (%)	29.47	30.41	31.23	37.29	44.12
Asset Quality					
Charge-offs/Avg Loans + PC (%)	0.10	0.08	0.06	0.06	0.03
Liquidity & Asset/Liability Mix					
Avg. total loans/Avg. total assets (%)	57.48	55.30	48.43	51.67	67.27
Total loans/total assets (%)	52.72	60.15	48.95	47.74	56.02
Capitalization					
Avg. equity/avg. loans (%)	9.27	9.05	9.51	8.44	6.47
Avg. equity/avg. assets (%)	5.33	5.01	4.61	4.36	4.35
Equity/total loans (%)	9.98	8.98	9.42	9.64	7.32
Equity/total assets (%)	5.26	5.40	4.61	4.60	4.10
Equity + res./tot. assets + PC (%)	0.77	0.78	0.76	0.63	0.62
Equity/total assets + PC (%)	0.60	0.62	0.61	0.49	0.48
Asset growth (%)	14.43	3.23	33.80	10.53	40.04
Equity growth (%)	11.48	20.96	34.01	24.03	22.34
Dividend payout ratio	23.43	27.23	21.78	23.92	29.55
Internal growth rate of capital (%)	15.65	18.17	21.55	21.46	20.09

FEDERAL NATIONAL MORTGAGE ASSOCIATION
(Fannie Mae)

Risk to the Government Credit Rating: 'A-'

Rationale

The assessment of the Federal National Mortgage Association reflects its strong market position, the improvement that it has made in managing interest rate risk, and the overall high quality of its assets, both on and off the balance sheet. These strengths are partially offset by concerns about the company's thin capital base and the narrowly margined nature of its two principal businesses. Since Fannie Mae maintains a sizable portfolio of primarily fixed rate mortgages on its balance sheet, which it funds with capital markets borrowings, results can be adversely affected by sustained moves in interest rates. While Fannie Mae maintains capital to protect against this risk, as well as credit risk in both the on and off balance sheet portfolios, the current levels of protection are, in S&P's view, consistent with the assigned rating. Moreover, Fannie Mae has not been immune to the historical earnings cyclicality that has characterized other entities involved in the mortgage business, and already thin margins earned on both its guaranty business and its portfolio of held mortgages could be pressured given adverse economic scenarios.

Factors Supporting Conclusion.

Market Position

Fannie Mae benefits from a strong market position in both of its principal businesses. That is, as a guarantor of conventional mortgages and as a portfolio holder of mortgages. Its only competition in the conventional market is the Federal Home Loan Mortgage Corporation. Outstanding guarantees for this duopoly were in excess of $620 billion at the end of 1989, about 25% of total outstanding residential debt of $2.5 trillion. The residential mortgage growth rate was about 10% a year for most of the 1980s. S&P's expectations for growth in the future mirror that of the consensus of industry opinion. Near term, capital adequacy constraints in the thrift and bank industries in combination with heightened credit quality concerns should contribute to continued Fannie Mae and Freddie Mac volume growth. Longer term, changing demographics could reduce demand for housing, possibly resulting in a lower volume of sales activity and slower property appreciation.

As market share data on loan purchases shows, Fannie Mae has outpaced Freddie Mac in recent years. This is all the more striking in that Fannie Mae only entered the guaranty business in 1981. In part, the gains represent Fannie Mae's being the first to guaranty adjustable rate mortgages (ARMs), as well as the flexibility that maintaining a portfolio on balance sheet provides, but they also suggest that Fannie Mae has been more aggressive than Freddie Mac in recent years in courting business.

Market share ($ in billions)

Year	FNMA purchases	FHLMC purchases
1985	$ 45.2	$ 44.0
1986	91.4	103.5
1987	83.8	76.8
1988	78.0	44.1
1989	92.3	78.6
1990	120.7	75.5

In its portfolio business, Fannie Mae benefits from its good access to funds at attractive rates. It does not have to compete as a depository for funds, but can raise what it needs from the capital markets, which are national and international in scope.

While Fannie Mae has historically specialized in guaranteeing single family and, to a much lesser degree, multifamily mortgages, new product initiatives, like its proposed purchase program for construction loans, bear monitoring in the future. While any new product initiatives are likely to remain limited in scope, they could have the potential to increase Fannie Mae's risk profile.

Management

Fannie Mae has had a recent change in leadership. David Maxwell, who had served as Chairman since 1981, resigned and James Johnson, who had served as Vice Chairman since early 1990, became Chairman in February 1991. The new Chairman has publicly stated that he will continue the policies and direction established by Mr. Maxwell. Fannie Mae can generally be characterized by stability in senior management. This has provided for continuity and consistency in pursuing strategic directions.

Asset Quality

Fannie Mae's primary balance sheet risk is in its mortgage portfolio, as the following shows:

	12/31/90 ($133,113)	12/31/89 ($124,315)	12/31/85 ($99,076)
Mortgage portfolio	85.5%	86.7%	95.4%
Investments	7.4%	6.7%	-
Cash	3.1%	2.8%	-
Int. receivable	0.8%	0.9%	-
Rec. currency swap	1.8%	1.4%	-
OREO	0.3%	0.4%	-
Other	1.1%	1.1%	4.6%

In addition to the balance sheet, MBS outstanding at 1990 year-end were $300 million, up from $228 million a year earlier and $55 billion at 1985 year-end.

The composition of the mortgage portfolio (not including off-balance MBS) was as follows:

	1990	1989	1985
Single family			
FHA/VA	10.0%	11.0%	28.0%
Fixed (30 yr)	62.0%	60.0%	46.0%
ARMs	18.0%	20.0%	17.0%
Seconds	1.0%	1.0%	3.0%
Multi-family			
FHA/VA	4.0%	4.0%	5.0%
Fixed (30 yr)	5.0%	4.0%	1.0%
ARMs	0.0%	0.0%	0.0%

Within the portfolio, certain trends are apparent. There has been a move away from single family FHA/VA mortgages; an increase in multi-family mortgages; and a slight move away from seconds; in all, a moderate pick-up in credit risk.

MBS Off-balance Sheet:

	1990 ($299,833)	1989 ($228,232)	1985 ($54,987)
Single Family			
Fixed (30 yr)	70.0%	68.0%	80.0%
Intermediate	13.0%	11.0%	6.0%
ARMs	14.0%	17.0%	12.0%
Multi-family			
Fixed	0.1%	1.0%	1.0%
ARMs	2.0%	3.0%	1.0%

The guarantee business remains overwhelmingly single family; there is a smaller proportion in 30 year fixed rate loans, with a greater proportion in ARMs and intermediate.

MBS breakdown by risk:

	Non-recourse	Recourse
1985	30%	70%
1989	59%	41%
1990	67%	33%

As apparent in the table above, Fannie Mae has taken on more credit risk, with the trend strongly towards non-recourse transactions. In recourse transactions Fannie Mae can turn to the seller of the mortgages to cover losses, but if the seller does not perform, Fannie Mae must; in non-recourse transactions Fannie Mae alone must cover losses. This trend towards non-recourse transactions is likely to continue, since for capital management purposes banks and thrifts want to rid themselves of recourse on mortgages that they sell.

Although Fannie Mae has not shared detailed portfolio and MBS characteristics with S&P, a substantial amount of information on these characteristics is public and has been factored into the analysis.

As of year-end 1990, 90% of both conventional single family mortgages in portfolio and MBS outstanding were in loans purchased since January 1, 1986, that is, when Fannie's new underwriting standards became operational. The revised guidelines, according to Fannie Mae, led to lower loan to value (LTV) on many purchased loans.

At year-end 1990, 77% of conventional single family loans in portfolio and backing MBS had original LTV of 80% or below, and 34% had LTV of 70% or below.

The mortgage portfolio and MBS are well diversified by region and by states within regions, but California alone accounted for 25% of the total. In general, Fannie Mae's portfolio and MBS have tended to reflect those markets that have experienced heightened mortgage origination activity, exposing itself to risk should these markets experience deterioration. This regional exposure, however, has been manageable within the context of its overall geographic diversification.

Fannie Mae's credit history has been good in the second half of the 1980's. Charge-offs to average portfolio loans plus MBS ran at 12 to 13 basis points in the mid-1980s, and have been on a declining trend since: down to 6 basis points in 1990. These numbers include multi-family experience. While current market conditions in several regional markets suggest that credit experience could be under some pressure in coming years, in S&P's view it is unlikely that potential deterioration would be substantial.

Reported delinquency (loans 90+ days past due, in relief, and in foreclosure) rates have also been good. Fannie Mae reports delinquency by number of loans, not outstanding balances, and only on Fannie Mae at risk (non-recourse) loans. The delinquency rate at 1990 year-end was .58% of total loans (1.02% of in portfolio loans and 0.33% in MBS), down from 0.69% a year earlier (1.11% in portfolio and 0.36% in MBS) and 1.48% at 1985 year-end.

Acquired property and foreclosure claims at 1990 year-end were 0.3% of the balance sheet, down from 0.4% a year earlier.

Based upon the available data, it is possible to conclude that Fannie Mae's credit history has been very strong over the past few years compared to that of most financial institutions, but a little weaker than that of several high quality thrifts operating in strong markets, which have historically had only a few basis points in charge-offs. Fannie Mae's good record reflects the preponderance of low LTV single family residential mortgages which it guarantees and are in its portfolio; the generally low loss recorded for single family mortgages throughout the country in recent decades; its tightened underwriting standards, which reflect the trend towards tightening of mortgage underwriting nationally in recent years; and the geographically diversified nature of its exposure.

Profitability

Fannie Mae has accomplished a strongly improving trend in profitability. Return on balance sheet assets was 0.91% in 1990, after consistently rising since the 1 basis point loss of 1984. Reflecting the narrow margined nature of both the portfolio and guarantee businesses, however, adjusted for MBS outstanding, ROA in 1990 was 0.31%, up from .026% in 1989. While profitability has been driven by fees generated in the guaranty business, portfolio profitability has also improved, as measured by the net interest margin: this was 1.39% in 1990, up from 1.16% in 1989 and 0.15% in 1985. General and administrative expense as a percent of revenues has been rising, but is still very modest at 2.25% in 1990, up from 2.20% in 1989 and 1.68% in 1986. The provision for losses has been a drain on income, but a modest one. Reflecting the competition with Freddie Mac, fees on MBS have been under pressure despite strong demand for the guarantees provided by both companies. Should demand weaken, pricing could be pressured further. While the strong improvement in profitability is a positive development, the relatively low adjusted profitability earned by Fannie Mae is a risk factor, since adverse developments that affect pricing, loss experience, or funding could have a severe effect upon already thin earnings power.

While the portfolio business generates both funding and interest rate risk, it does provide a valuable source of income for Fannie Mae, as well as providing some diversification. Should the guarantee business falter, Fannie Mae could still generate earnings from its portfolio.

Liquidity/Funding

As a GSE Fannie Mae has good access to capital markets for both long and short term funds, and this is a considerable strength. Fannie Mae has gone to great pains in recent years to correct the interest rate mismatch that caused it difficulty in the early 1980s. Management focuses upon the balance sheet's duration gap, which was down to 3 months at December 31, 1990, a vast improvement from the 36 months at 1980 year-end. Mortgage assets, as measured by Fannie Mae, have been shortened to an average life of 41 months from 62 months. While this reflects the greater proportion of ARMs and intermediate term loans in the portfolio, it also involves assumptions on prepayments. In addition, average life of liabilities has gone to 38 months from 26, reflecting efforts to issue more longer term debt.

Looking at the one year maturity gap, again as presented by Fannie Mae, there is much improvement. The gap moved from a negative 2% to a positive 4% from the end of 1985 through the end of 1989. It was a negative 16% at 1984 year-end.

In managing interest rate risk, Fannie Mae has issued more callable debt in recent years, lengthened the maturities of overall debt, and also uses hedging. While Fannie Mae has definitely made progress in managing its interest rate risk, it still could be adversely affected by changes in interest rates, especially if there is a sustained rise in rates to much higher levels. Despite good efforts to manage interest rate risk, Fannie Mae has about three quarters of its mortgage portfolio in long term fixed rate mortgages, which are funded relatively short. This embedded interest rate risk must be reflected in appropriate capitalization, along with credit risk.

Capitalization

Risk adjusted capitalization has been improving at Fannie Mae, and management has said that equity and reserves would total at least $6 billion by 1991 year-end. Balance sheet leverage has improved to 2.96% equity/assets at 1990 year-end, from 2.41% a year earlier and 1.02% at 1985 year-end. Significantly, and despite the very rapid growth in the guaranty business, leverage measures including the off balance sheet guarantees have also improved. Equity plus reserves/total assets plus MBS reached 1.06% at 1990 year-end, up from 1.01% a year earlier and 0.74% at 1986 year-end. Since capital must protect against credit,interest rate and other business risks, further progress in risk adjusted capitalization would have to be made for consideration to be given to a higher rating.

Federal National Mortgage Association

Balance Sheet
($ in millions)

	1990	1989	1988	1987	1986
Assets					
Cash and equivalents	4,178	8,338	2,672	2,142	1,630
Investments & other securities	9,868	3,532	5,476	3,783	232
Mortgage portfolio, net	113,875	107,756	99,867	93,470	93,949
Interest receivable	1,032	1,064	939	811	904
Receivable from currency swap	2,376	1,796	1,717	1,573	1,054
Acquired property	370	448	418	416	414
Other assets	1,414	1,381	1,169	1,264	1,438
Total assets	133,113	124,315	112,258	103,459	99,621
Liabilities					
Escrow deposits	346	346	353	352	340
Total debt	123,403	116,064	105,459	97,057	93,563
Other borrowings incl fed funds & rev repo	0	0	0	0	0
Accrued interest payable	2,418	2,424	2,173	2,145	2,305
Deferred income taxes	90	153	157	298	278
Payable from currency swap	1,755	1,355	1,150	958	779
Other liabilities	1,160	982	706	838	1,174
Total liabilities	129,172	121,324	109,998	101,648	98,439
Total shareholders' equity	3,941	2,991	2,260	1,811	1,182
Tot. liabilities & s'holders' equity	133,113	124,315	112,258	103,459	99,621

Federal National Mortgage Association

Income Statement

($ in millions)

	1990	1989	1988	1987	1986
Interest income	12,069	11,080	10,226	9,843	10,107
Interest expense	10,476	9,889	9,389	8,953	9,723
Net interest income	1,593	1,191	837	890	384
Other income					
Loan fees and service charges	536	408	328	263	175
Gain (loss) on sale of loans	7	9	12	-81	31
Other	107	60	69	53	83
Total other income	650	477	409	235	289
Other Expense					
Administrative	286	254	218	197	175
Provision for losses	310	310	365	360	306
Total other expense	596	564	583	557	481
Income bef taxes & extra items	1,647	1,104	663	568	192
Income taxes	474	297	156	192	87
Net income	1,173	807	507	376	105

Federal National Mortgage Association

Ratio Analysis

	1990	1989	1988	1987	1986
Profitability					
Net income ($ in millions)	1,173.00	807.00	507.00	376.00	105.00
Return on assets (%)	0.91	0.68	0.47	0.37	0.11
Return on equity (%)	33.87	30.73	24.90	25.12	9.58
G & A/Total Assets (%)	0.21	0.20	0.19	0.19	0.18
G & A/Total Revenues (%)	2.25	2.20	2.05	1.95	1.68
Net int. income/non-int. expense (%)	556.99	468.90	383.94	451.78	219.43
Net margin (%)	1.39	1.16	0.89	1.00	0.40
Effective tax rate (%)	29.00	27.00	24.00	34.00	45.00
Asset Quality					
Charge-offs/Avg Loans + MBS (%)	0.06	0.08	0.12	0.13	0.12
Liquidity & Asset/Liability Mix					
Avg. total loans/Avg. total assets (%)	86.09	87.76	89.63	92.29	94.84
Total loans/total assets (%)	85.55	86.68	88.96	90.34	94.31
Capitalization					
Avg. equity/avg. loans (%)	3.13	2.53	2.11	1.60	1.16
Avg. equity/avg. assets (%)	2.69	2.22	1.89	1.47	1.10
Equity/total loans (%)	3.46	2.78	2.26	1.94	1.26
Equity/total assets (%)	2.96	2.41	2.01	1.75	1.19
Equity + res./tot. assets + MBS (%)	1.06	1.01	0.94	0.90	0.74
Equity/total assets + MBS (%)	0.94	0.88	0.80	0.76	0.61
Asset growth (%)	7.08	10.74	8.50	3.85	0.55
Equity growth (%)	31.76	32.35	24.79	53.21	17.15
Dividend payout ratio	14.74	12.76	11.24	7.71	14.29
Internal growth rate of capital (%)	28.88	26.81	22.10	23.18	7.30

STUDENT LOAN MARKETING ASSOCIATION
(Sallie Mae)

Risk to the Government Credit Rating: 'AAA'

Rationale

The assessment of Sallie Mae reflects its consistently good operating performance, the high quality of its asset base, and its strong risk adjusted capitalization. Sallie Mae has managed well the servicing risks attendant upon guaranteed student loans, which, along with advances secured by such loans, comprise the preponderant part of the company's balance sheet. While student loans themselves do not have a good credit history, the insured nature of the loans either held or taken as collateral substantially protect the holder from risk. Moreover, capital is maintained at levels to protect against a variety of risks, including the remote risk of guarantor failure. Leverage has increased in recent years, reflecting an active stock buyback program, but Sallie Mae remains appropriately capitalized on a risk adjusted basis. Although pricing pressures on guaranteed student loans have contributed to a narrowing of margins, Sallie Mae has continued to achieve strong profitability, reflecting both its low operating expense and attractive cost of funds.

Factors Supporting Conclusion.

Market Position

Sallie Mae specializes in the purchase and holding of government guaranteed student loans, and also provides warehouse financing on a secured basis for financial institutions and others (state agencies and non-profit loan originators) that are active originators of government guaranteed student loans. Sallie Mae also maintains a sizable portfolio of short term investments for liquidity purposes and makes a limited number of loans to educational institutions for facilities construction and invests in student loan revenue and facilities bonds. Sallie Mae is not itself a student loan guarantor, but a provider of liquidity to the guaranteed student loan market. It has also capitalized the College Construction Loan Association (Connie Lee) with $53 million and has a commitment to provide another $25 million under certain conditions. Connie Lee, which is 75% owned by Sallie Mae, is a loan guarantor. It is rated 'AAA' by S&P on a stand alone basis.

The student loan business has been a growth area in recent years, with guaranteed loans going from outstandings of $23 billion in 1982 to some $53 billion at September 30, 1990. At the latter date, Sallie Mae held about 31% of outstandings, by far the largest market share. Growth in loans outstanding should continue to be healthy in future years, given the continuing strong interest in education among the American people and rising tuition expense. The guaranteed student loan programs, however, may come under tighter restrictions, reflecting governmental concern about the credit experience and overall cost to the government of these loans, which has worsened in recent years. In 1990, the program cost the government $4.4 billion, of which about $2.5 billion was gross default and claim costs, and the remainder subsidy expense. The brunt of any restrictions, however, would likely deal with trade school related loans, since this is where the bad credit experience has been centered, leaving financing for college and graduate school, which account for the bulk of the loans, unaffected. The growing unattractiveness of holding and servicing student loans by private financial institutions, a function of some widely publicized problems, could be to Sallie Mae's benefit in the longer term, facilitating its growth in market share.

The proportion of loans held by Sallie Mae that are serviced in house has been rising significantly, and is now well over 50%. It maintains seven servicing centers and on a visit to one of the largest S&P found that it was technologically advanced. The company has a well organized and defined growth strategy as far as training, capacity and workflow are concerned. While there could be risk attendant upon the start up and rapid growth of newer centers, Sallie Mae's extensive experience in servicing student loans should enable it to manage this potential risk. Sallie Mae also uses outside services, and monitors their performance to mitigate risk.

Management

Last year the first CEO, Edward Fox, resigned, as did the General Counsel. Last July, Sallie Mae's Board appointed Lawrence Hough as President and Chief Executive Officer and Timothy Greene as General Counsel. Both Mr. Hough and Mr. Greene had experience at Sallie Mae prior to their current positions. At the same time, the Board appointed Albert Lord as Executive Vice President and Chief Operating Officer, a newly created position. Mr. Lord had previously served as the Chief Financial Officer. Even with these changes, management at Sallie Mae has followed consistent policies in recent years.

More attention has been given to credit policy, as evidenced by the creation of a high level credit function. In late 1989, Sallie Mae appointed William Wingate as Senior Vice President for Credit Analysis. Mr. Wingate's responsibilities are primarily directed at evaluating and monitoring counterparty risk, an important function in maintaining high quality, low risk asset exposure.

Asset Dispersion/Quality

Asset growth at Sallie Mae has been brisk in recent years: total assets of $41.1 billion as of December 31, 1990 were up 16% from 1989 year end and up 44% from 1988 year end. The composition of assets was as follows:

	1990	1989	1988
Insured loans	46.8%	45.1%	46.1%
Warehouse advances	23.2%	24.2%	27.9%
Cash & investments	27.3%	27.7%	22.9%
Other	2.7%	3.0%	3.1%

In terms of trends in asset dispersion, the single most noteworthy point is the growth in the investment portfolio as a proportion of the balance sheet and a corresponding decline in warehouse advances as a proportion.

The investment portfolio is maintained for liquidity reasons, and also generates income. Since Sallie Mae funds on a low cost basis as a GSE, it is able to make a spread between its cost of funds and the yield on this investment portfolio. This is a high grade, short term portfolio, comprised heavily of fed funds (69% of the portfolio at 1990 year-end), and supplemented primarily with Treasury securities, money market preferred stock (high grade issues), and student loan revenue and facilities bonds.

Sallie Mae's portfolio of insured student loans represents the largest part of its business. These loans are purchased from primary originators (banks, thrifts, state agencies, non-profit originators) and virtually all are ultimately insured by the U.S. Government. Insurance coverage aside, student loans do not have a very good credit history. The national default rate in 1990 was 6.8% (claims paid during the year to loans in repayment), and the cumulative national rate (total defaults since inception of the program to loans that have entered repayment) was 14.1% on a gross basis and 9.6% on a net basis (net takes into consideration recoveries). The insured nature of these loans provides considerable comfort to the holder or to a warehouse lender that has taken these loans as collateral, but there could be problems related to claims payments. Claims may be rejected if the holder has not followed proper procedures; for example, if it has not made adequate effort at collection. This underscores the importance of good servicing, which we believe Sallie Mae has; it has never had a significant problem with its claims.

Another area of risk to the holder of a guaranteed student loan stems from the system of reinsurance. Loans have a primary guarantor, usually a state agency or not for profit organization, which guarantor is in turn reinsured by the U.S. government. The loan holder makes claim to the primary guarantor, who pays the holder and seeks reimbursement from the government for losses. A guarantor is reimbursed 100% for claims it pays. However, if the loss experience of a guarantor exceeds certain levels, the government could limit reimbursement to 80%-90% of the loss amount. Primary guarantors maintain their own reserves, but limited reimbursement could jeopardize the ability of the primary guarantor to meet its obligations to the holder of the loan.

Warehouse loans made by Sallie Mae are secured credits, with protection provided by over collateralization levels geared to the type of collateral. The majority of collateral is GSLs, which are viewed as low risk. While Sallie Mae has a broad creditor base and monitors the credit of its borrowers, the collateral is an important element of protection, since many originators of student loans, especially thrifts, are not good unsecured credits.

Overall, student loan asset risk at Sallie Mae is limited, but advances and investments can pose additional risk. Moreover, the complexities involved in originating and servicing student loans underscore that holding them is not riskless, given the claims procedures risks and the reinsurance system, both of which expose the holder to potential loss. While Sallie Mae has mitigated servicing risk, it is exposed to some degree to reinsurance risk.

Profitability

Sallie Mae has and continues to be a strong earner. ROA has trended downwards from 0.94% in 1985 to 0.78% in 1990, in part reflecting the growth in the investment portfolio and the narrower returns on this line of business and in part tighter pricing on student loans. Reflecting increased leverage, ROE has actually increased to 28% in 1990 from 20% in 1985. Sallie Mae benefits from its funding as a GSE, as well as from its market position as a titan within the guaranteed student loan business. While Sallie Mae's margins are narrow, and have been declining, it benefits from an extraordinary low expense ratio. Overhead to operating income at 16% compares favorably to that of other financial institutions. The stability of Sallie Mae's ratio reflects the wholesale nature of its operations and also suggests good cost controls. Net income also benefits from the historical absence of any provision for loan losses, reflecting the minuscule credit losses sustained by Sallie Mae over the years.

Funding and Asset Liability Management

Sallie Mae's funds are raised in the public debt markets. As a government sponsored enterprise with significant links to the Treasury, Sallie Mae is perceived by the markets as an "agency" and benefits accordingly. Sallie Mae issues both long and short term debt, with a current breakdown between the two of 62% long term (maturities greater than one year) and 38% short term. The relative proportion of short term has risen in recent years, reflecting the growth in the investment portfolio, which tends to be short term in nature, mitigating any concern about the shift. The high proportion of long term debt mitigates liquidity risk.

Sallie Mae carefully manages its interest rate risk position and its reported gap position shows minimal exposure to interest rate risk. Student loans, while fixed to the borrower, are floating rate assets to Sallie Mae since the government pays a spread over T-bills to the holder of the loan. Its warehouse advances are either floating rate or matched funded to term, and its investment portfolio is also predominantly short term. Long term liabilities carry floating rates or fixed rates that are either matched to fixed rate assets or swapped into floating rates. Sallie Mae carefully monitors its swap exposure and counterparty risk.

Capital

Measured in terms of asset leverage or loan leverage, leverage has risen substantially in recent years. Average equity to loans has gone from 5.69% in 1985 to 4.11% in 1990 and average equity to assets has gone from 4.77% in 1985 to 2.83% in 1990. Although strong earnings, combined with a modest (20%) payout ratio, have led to good earnings retention, capital has been pressured by an aggressive policy of stock repurchasing. Given the rating category, in S&P's view, Sallie Mae is not overcapitalized and continued leverage could have negative implications. Nonetheless, capital is currently appropriate to the asset and business risks of Sallie Mae at the 'AAA' level.

Student Loan Marketing Association

Balance Sheet
($ in millions)

Period End:	1990	1989	1988	1987	1986
Assets					
Cash and investments	11,251	9,840	6,567	3,836	3,122
Insured student loans, net	19,242	16,029	13,202	10,043	8,175
Warehousing advances	9,528	8,601	7,989	8,357	6,527
Other assets	1,102	1,018	869	627	408
Total assets	41,123	35,488	28,627	22,863	18,232
Liabilities					
Short-term debt	14,801	14,965	9,820	6,571	4,517
Long-term debt	24,243	18,623	17,164	14,871	12,624
Other liabilities	987	862	844	737	436
Total liabilities	40,031	34,450	27,828	22,179	17,577
Equity	1,093	1,037	800	684	655
Tot. liabilities & equity	41,124	35,487	28,628	22,863	18,232

Student Loan Marketing Association

Income Statement

($ in millions)

	1990	1989	1988	1987	1986
Interest income	3,503	3,169	2,172	1,582	1,300
Interest expense	3,024	2,751	1,799	1,269	1,036
Net interest income	479	418	373	313	264
Other Expense	79	70	62	50	42
Pretax income	400	348	311	263	222
Tax expense	99	90	85	81	78
Net income	301	258	226	182	145

Student Loan Marketing Association

Ratio Analysis

	1990	1989	1988	1987	1986
Profitability					
Net income ($ in millions)	301.00	258.00	226.00	182.00	145.00
Change in NI from prev. year (%)	16.67	14.16	24.18	25.52	17.21
Return on assets (%)	0.78	0.79	0.80	0.88	0.80
Return on equity (%)	27.42	30.47	30.18	27.26	21.53
Net interest margin (%)	1.44	1.49	1.63	1.77	1.82
Overhead/adj. operating income (%)	16.49	16.75	16.62	15.97	15.91
Non-int exp/avg assets (%)	0.21	0.21	0.24	0.24	0.26
Effective tax rate (%)	24.75	25.86	27.33	30.80	35.14
Dividend payout (%)	22.59	18.60	14.60	14.84	15.86
Asset Quality					
Net charge-offs/loans (%)	0.00	0.00	0.00	0.00	0.00
Non-performing loans/loans (%)	0.00	0.00	0.00	0.00	0.00
Liquidity					
Loans/assets (%)	64.93	62.16	67.93	71.74	74.22
Temp. investments/assets (%)	27.36	27.73	22.94	16.78	17.12
Capital					
Avg. equity/loans (%)	4.11	3.83	3.84	4.05	4.96
Avg. equity/assets (%)	2.83	2.59	2.91	3.23	4.09
Avg. asset growth (%)	17.07	27.56	24.74	25.20	25.55
Avg. loan growth (%)	21.03	13.45	18.55	21.22	23.34
Avg. equity growth (%)	25.89	13.40	12.35	-1.04	7.53

U.S. GOVERNMENT PRINTING OFFICE : 1991 O - 294-104 QL 3