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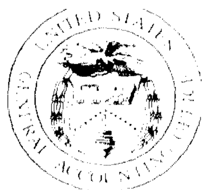
GOVERNMENT-SPONSORED ENTERPRISES

A Framework for Limiting the Government's Exposure to Risks



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The President of the Senate and the
Speaker of the House of Representatives

This report presents the results of our review of financial institutions known as government-sponsored enterprises (GSEs). The Financial Institutions Reform, Recovery, and Enforcement Act required us to study the risks undertaken by GSEs and the appropriate levels of capital for such enterprises consistent with financial soundness and stability and with minimizing the potential financial exposure of the federal government.

This report presents our recommendations for legislative changes to existing federal oversight of and capital rules for Farm Credit Banks, Banks for Cooperatives, Federal Home Loan Banks, the Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Association (Freddie Mac), the Student Loan Marketing Association (Sallie Mae), and the Federal Agricultural Mortgage Corporation (Farmer Mac).

We are providing copies of the report to interested Members of Congress, appropriate committees and executive branch agencies, the GSEs, and the public.

This report was prepared under the direction of Craig A. Simmons, Director, Financial Institutions and Markets Issues, who may be reached on (202) 275-8678 if there are any questions. Other major contributors are listed in appendix XIII.

Charles A. Bowsher
Comptroller General
of the United States

Executive Summary

Purpose

Government-sponsored enterprises currently hold more than a trillion dollars in obligations, and that figure continues to grow rapidly. The large losses of the thrift industry have raised concerns about the government's exposure should any of these enterprises fail.

The Financial Institutions Reform, Recovery, and Enforcement Act of 1989 required GAO and the Treasury Department to each issue two reports on the risk-taking and capital of these enterprises and to recommend any needed improvement. In their first reports, GAO and Treasury both concluded that federal oversight and capital rules for such enterprises were inadequate. Since those reports were released, Congress passed legislation requiring the Treasury Department to study the financial soundness and current regulation of the enterprises and to submit a legislative proposal, by April 30, 1991, based upon its study; Congress also required the Congressional Budget Office to submit a report on enterprise risk-taking and alternatives for improved federal oversight. In addition, Congress passed legislation directing its committees of jurisdiction to report legislation by September 15, 1991, to upgrade the oversight of government-sponsored enterprises.

The purposes of this report are to propose (1) appropriate regulatory authorities for a federal regulator of government-sponsored enterprises, (2) a regulatory structure to administer enterprise oversight, and (3) capital standards that adequately protect the government's interest in enterprises. In a third report to be issued shortly, GAO will present the results of its audit of risk control procedures at three of the enterprises.

Background

Congress created government-sponsored enterprises to help make credit reliably available to farmers, homeowners, colleges, and students. Three of these enterprises promote agricultural-related lending—Farm Credit Banks, Banks for Cooperatives, and the Federal Agricultural Mortgage Corporation (Farmer Mac); three promote home lending—Federal Home Loan Banks, the Federal National Mortgage Association (Fannie Mae), and the Federal Home Loan Mortgage Corporation (Freddie Mac); and one promotes higher education lending—the Student Loan Marketing Association (Sallie Mae).

Congress made the enterprises privately owned and operated, limited their activities to specific economic sectors, and gave them benefits to help accomplish their public purposes. As private entities, the enterprises accomplish their public purposes using private sector incentives. Like any private financial firm, these enterprises are subject to financial

risks. These risks include losses arising from borrowers' failing to repay their loans, losses from changes in interest rates, and losses from poor management decisions and unfavorable business conditions.

Current regulatory controls were designed to supplement private market discipline to protect the government's interest in the enterprises. In its first report on the enterprises, GAO reported that enterprise ties with the government have weakened private market discipline to the point that creditors believe the federal government would likely assist an enterprise through any financial difficulty. While the government has no legal obligation to protect enterprise creditors, it seems clear that the enterprises' federal ties cause creditors to behave like insured depositors who believe their investments to be very safe. For example, the enterprises borrow with relatively low levels of capital and can continue to borrow money in private markets even when performing poorly.

Each enterprise's charter broadly defines permissible activities and establishes some government oversight of the enterprise. GAO also found that the government supervises some enterprises but not others. The agricultural enterprises and the Federal Home Loan Banks each have a regulator with certain authorities to monitor risk-taking and enforce capital rules. However, Fannie Mae's, Freddie Mac's, and Sallie Mae's risk-taking and capital levels are not closely supervised by the government. Yet these three enterprises alone accounted for over $800 billion in obligations at the end of 1990.

With private creditor discipline weakened, enterprise boards of directors and managers are largely free to set levels of capital as they wish unless minimum capital levels are established by law or regulation. In financially troubled times after capital is depleted, owners and managers may have incentives to take added risks in a last-ditch effort to recover. Creditors may be willing to lend enterprises the funds needed to take these risks because they expect to be protected from loss by the federal government.

This expectation is not without foundation. In 1987, Congress approved $4 billion in assistance to the ailing Farm Credit System and in 1989, $50 billion to rescue the thrift industry. These crises demonstrate the effects of inadequate federal supervision of the risk-taking and capital levels of financial institutions. The government did not have effective monitoring or capital rules in place to provide warning of the Farm Credit crisis in time to prevent taxpayer expense. For thrifts, capital regulations were largely unenforced, and oversight and supervision

were weak. After each of these financial crises, legislation reformed and strengthened the supervisory role of the financial regulators, making them independent and responsible for establishing risk-based capital rules. But the regulatory reforms were enacted too late to avoid large taxpayer assistance programs.

Changes in management strategies, economic downturns, or other adverse events could precipitate future enterprise losses. The speed with which a financial firm can go from being apparently sound to financially imperiled was seen in the Farm Credit and thrift crises, as well as in Fannie Mae's difficulties in the early 1980s. Without overseeing enterprise risk-taking, the government has little ability to identify, prevent, or contain the effects of the kinds of problems that have led to taxpayer losses in the past.

GAO concluded in its first report that the sheer size of government-sponsored enterprises' financial obligations, their public policy purposes, and the probability that the federal government would assist a financially troubled enterprise make it appropriate for the government to supervise their risk-taking activities and establish minimum capital levels. GAO also concluded that caution dictates that the government not wait for a crisis before protecting its interest. By strengthening oversight and establishing capital rules in the current favorable environment, the potential for future crises can be reduced.

Results in Brief

GAO believes that federal oversight of enterprises should be designed to keep emerging problems from imposing losses on taxpayers and to develop appropriate responses quickly so that major unanticipated losses can be contained.

A single regulatory body is needed to oversee all the enterprises. It should be independent, prominent in government, and have the ability to protect the government's interest in accomplishing the public purposes of the enterprises while minimizing any risk to taxpayers.

GAO proposes the establishment of a Federal Enterprise Regulatory Board to achieve that goal. The board would have three voting members—a full-time presidentially appointed chairperson, the Secretary of the Treasury, and the Chairman of the Federal Reserve System. To provide advice on specific agriculture, education, and housing programs

and markets, the board would have three nonvoting members—the Secretaries of Agriculture, Education, and Housing and Urban Development.

To protect the government's interest in the enterprises adequately and to ensure that the enterprises carry out their public purposes in a safe and sound manner, the regulator should have authorities and responsibilities to (1) establish rules to implement enterprises' charters, including rules defining safe and sound practices; (2) monitor enterprises' performance in accomplishing their missions; (3) set minimum capital standards based on the risks undertaken by each enterprise; (4) enforce charter restrictions, regulations, and capital requirements; and (5) levy assessments to cover the costs of oversight and supervision.

These authorities should supplement, not obstruct, the existing corporate governance at each enterprise. Under normal conditions, regulatory activity would usually be one of monitoring the performance of the enterprises to ensure that corporate governance is working effectively and according to established regulations. Prompt intervening actions by the regulator would be warranted when corporate governance processes are not working as intended or when the enterprise is experiencing financial or managerial difficulties.

To cover enterprise risks adequately, the minimum capital standards for enterprises should be based on the sum of (1) empirically based measurements of the capital needed to withstand credit and interest rate losses in stressful economic environments and (2) an amount equal to a proportion of enterprise size so that capital is held for management, operations, and business risks. One exception to this is for Farm Credit Banks and Banks for Cooperatives which, because they compete directly with commercial banks, should continue under bank-like, risk-based capital rules.

GAO's Analysis

Additional Oversight Authorities Needed

GAO's first report on government-sponsored enterprises found that several shortcomings in federal oversight of various enterprises inhibit the government's ability to identify or contain future problems that could lead to taxpayer losses.

- The Department of Housing and Urban Development does not have clear authority to set capital rules for Fannie Mae and Freddie Mac based on the risks they undertake. The Department does not have the range of specific enforcement authorities typically granted to bank regulators and has not fully exercised the authorities it has been granted. Furthermore, conflicts could exist between the Department's housing goals and its goals as a financial regulator.
- Sallie Mae has neither a federal regulator overseeing its financial activities nor a minimum capital requirement.
- The Farm Credit Administration lacks specific authority to set capital standards for Farmer Mac, which has received new authority to purchase and hold or issue securities backed by the guaranteed portion of Farmers Home Administration loans.
- The statutory capital rules for the Federal Home Loan Bank System use a capital-to-outstanding-debt ratio that considers neither the risks of off-balance-sheet activities nor the relative riskiness of various bank assets.

Because of these shortcomings, problems in these enterprises could develop without an adequate federal capacity to identify and contain the problems. In the past, such regulatory neglect has led to multibillion dollar taxpayer assistance programs to assist the Farm Credit System and the thrift industry. While those systems were reformed after incurring taxpayer expense, prudence dictates strong federal oversight be established before problems arise.

Two factors are most important in considering appropriate authorities and responsibilities for an enterprise regulator. First, enterprise regulatory authorities should be similar to those that exist for banks because large-scale bank failures and enterprise failures each could represent large financial costs to the government and possible disruption to financial markets. Second, federal enterprise oversight should supplement corporate governance because enterprises serve both public and private interests. Thus, such oversight should not be so intrusive that it interferes with an enterprise's ability to accomplish its purposes through its normal business operations.

Based on these factors, the following authorities and responsibilities are needed for an enterprise regulator:

- A regulator should be able to set rules that clearly define regulatory expectations and promote the accomplishment of enterprises' purposes in a safe and sound manner. The rule-making process should conform to

the Administrative Procedures Act, including requirements for public comment before adoption of rules.

- A regulator should monitor financial performance and compliance with regulations so as to have an adequate understanding of the enterprise's operations, condition, and the risk to the government. Monitoring should increase when conditions warrant, and the regulator should have unimpeded, timely access to all information, systems, and personnel.
- A regulator should be able to act in a timely manner, enforcement actions should result from a fair and reasonable process, enforcement authorities should be sufficiently broad, and some enforcement actions should be mandatory when prespecified conditions are met. (See pp. 34-40.)

In the course of this study, the enterprises and their current regulators raised two important questions concerning oversight of enterprises. First, to what extent should the safety and soundness oversight functions be separated from the general oversight of enterprises' statutory purposes? Second, under what conditions and to what extent should an enterprise regulator involve itself in corporate governance?

It is undesirable to separate the regulation of an enterprise's statutory activities from safety and soundness considerations. Such separation invites duplicative monitoring, regulatory indecision, and business difficulties for the enterprises. When conflicting roles of a regulator have caused problems—as with the Federal Home Loan Bank Board and Farm Credit Administration as advocates for the enterprises they regulated—Congress has responded by enhancing the independence of the regulatory function but continuing to assign responsibilities for safety and soundness oversight and statutory compliance to a single entity.

Under normal circumstances, an enterprise regulator would not need to involve itself in an enterprise's business affairs by approving operating strategies, budgets, salaries, hiring, and such matters. Under current charters, such powers normally fall in the domain of the enterprises' boards of directors. GAO would not change that. Permitting corporate directors and officers the freedom to manage these enterprises allows quick response to changes in the marketplace. (See pp. 28-34.)

Single Independent Regulator Favored

Recent regulatory experiences during the thrift and Farm Credit crises indicate that an effective enterprise regulator should be structured so that it is both prominent in government and objective and independent

from the enterprises, their competitors, and all advocacy responsibilities. These characteristics should give the regulator the visibility and the capability to act promptly and effectively if a government-sponsored enterprise experiences severe difficulties. To avoid possible conflicts of interest, an enterprise regulator should not also regulate the market served by the enterprise. In addition, equity demands that enterprises facing similar risks receive similar regulatory treatment. Finally, having the enterprises pay the costs of regulation should help ensure that the regulatory structure is efficient in its operations. (See pp. 44-47.)

A structure that meets these criteria better than any other option is a high-level, independent Federal Enterprise Regulatory Board created to oversee the activities of all enterprises. This regulator would not be tied exclusively to the fortunes of any one enterprise. It would be independent from the interests of any one economic sector or cabinet-level department. Such a regulator could be headed by prominent government leaders, and its oversight responsibilities for over $1 trillion in debt and guarantees should give it sufficient prominence.

In addition, a single independent regulator would not have to compete with the budget priorities of other federal agencies. An independent regulator also would achieve operational efficiencies by combining several smaller regulators into one, thus avoiding duplicate overhead costs. It would also be in the best position to ensure that competing enterprises sharing similar risks would face similar regulation.

Because of its important responsibility to supervise the safety and soundness of all the enterprises, the members of the independent regulator's board need to have sufficient status, respect in government and business, and financial expertise. GAO proposes a three-member board composed of a full-time chairperson who acts as the chief executive officer of the regulatory staff, the Secretary of the Treasury, and the Chairman of the Federal Reserve System.

To ensure independence, the chairperson would be a presidential appointee who serves a fixed-length term. The chairperson should be familiar with government and have a respected record of achievement. The Secretary of the Treasury would provide financial expertise and represent the administration's views. The Federal Reserve Chairman would provide an independent view of and expertise in the workings of financial markets.

The board also needs to have the views and perspectives of federal officials with expertise in agriculture, education, and housing programs. As nonvoting members of the board, the Secretaries of Agriculture, Education, and Housing and Urban Development would provide their respective expertise in public policy. Their nonvoting status should protect the arm's-length nature of the board by minimizing the possibility that these members use the enterprises to address public concerns not envisioned by enterprise charters.

The board's chairperson would oversee the day-to-day operations of the regulatory staff. This staff would develop and implement policy issues and regulations for the board, and it would carry out all oversight and enforcement functions for the board. The board should be free to establish the actual management structure; however, to avoid regulatory conflicts from combining primary and secondary market regulation, at least two divisions would be needed—one for supervision of Farm Credit Banks and Banks for Cooperatives, and one for the other enterprises. (See pp. 47-51.)

Regulatory Capital Requirements Should Be Based on Risks Undertaken

Requiring that government-sponsored enterprises maintain a minimum amount of capital provides several public benefits. Foremost, it provides some assurance of a buffer adequate to absorb unforseen enterprise losses and to prevent taxpayer losses. Also, a capital standard helps ensure that enterprise shareholders have incentives to demand that management not take undue risks. Finally, a capital standard provides the government with a mechanism to influence an enterprise's risk-taking without involving itself in the enterprise's daily business operations.

To accomplish these objectives, regulatory capital requirements imposed on government-sponsored enterprises should (1) be based on all risks they undertake, (2) provide the government an adequate buffer for possible enterprise losses, (3) be clear and prospective, and (4) be equitable across enterprises that compete with each other. Since Farm Credit Banks and Banks for Cooperatives compete directly with commercial banks, their capital requirements should continue to be patterned after bank risk-based capital rules. (See pp. 58-61.)

Each enterprise's charter, except Sallie Mae's and Farmer Mac's, requires the enterprise to hold some level of capital. These existing requirements, however, do not consider all the risks enterprises undertake and therefore do not ensure an adequate capital buffer in the event

problems develop that could expose the government to losses. Also, the statutory capital requirements have become outdated since they have not kept up with advances in financial markets. Insufficient regulatory capital requirements for enterprises leaves the decision about taxpayers' protection to enterprise owners and managers.

To protect taxpayers fully, legislation should require the new regulatory board to establish capital standards for the enterprises. These standards should be based on all risks undertaken by the enterprises. Where possible, the standards should be based on empirical evidence and should use the best available measurement methods. To provide flexibility as markets, technologies, and enterprise operations evolve, the specific measurements, assumptions, and ratio levels should be left to the board's discretion. Such flexibility is currently missing for Fannie Mae and Freddie Mac, where the capital rules have become outdated now that off-balance-sheet activities are commonplace.

GAO believes two methods are needed to set minimum capital levels that cover all enterprise risks. First, empirically based computer simulations should be used to quantify the adequacy of enterprises' capital to withstand credit and interest rate losses from various stressful economic environments. These "stress tests" are especially applicable to financial firms in a single line of business—as are the enterprises—because economic environments adverse to such firms are relatively easier to identify than for firms in multiple lines of business like banks. The stress tests, which use the latest analytical approaches in finance theory, can be tailored to each enterprise's specific circumstances.

Second, to fully protect the government against possible losses, capital requirements must also consider management, operations, and business risks that are not easily quantified and are not reflected in stress tests. A leverage ratio based on enterprise size could be used to set capital requirements for these risks. To cover all elements of risk, the leverage ratio should be fixed percentages of outstanding obligations, both on- and off-balance sheet.

Under this approach, total minimum required capital would be the sum of that needed to meet the stress test requirements and the leverage ratio requirement. Minimum required capital needs to be the sum of both requirements to provide sufficient capital to ensure a buffer against possible losses arising from all sources of risk. (See pp. 61-74.)

Recommendations to Congress

GAO recommends that Congress establish an independent Federal Enterprise Regulatory Board to oversee the activities of government-sponsored enterprises. The board should be headed by a board of directors composed of three voting members—a presidentially appointed chairperson, the Secretary of the Treasury, and the Chairman of the Federal Reserve System—and three nonvoting members—the Secretaries of Agriculture, Education, and Housing and Urban Development. This board should be endowed with authorities and responsibilities to make and enforce rules of safe conduct and monitor compliance with the rules.

GAO also recommends that Congress direct the board to establish minimum required capital standards for the enterprises that are based on the risks they undertake. The standards should include the sum of capital levels determined by (1) empirically based tests of an enterprise's capital adequacy to withstand credit and interest rate risks in stressful economic environments and (2) a leverage ratio that provides capital for management and business risks. GAO makes additional recommendations on page 57.

Agency Comments

GAO requested comments on a draft of this report from all the enterprises, their regulators, and the departments of Agriculture and Education. Fannie Mae, Freddie Mac, the Federal Housing Finance Board, the Department of Housing and Urban Development, the Farm Credit Administration, the Farm Credit System, the Department of Agriculture, and Sallie Mae provided written comments, which appear along with GAO's responses in appendixes V through XII. The enterprises, their regulators, and the departments generally agreed with GAO's principles and criteria used to evaluate the options for improving federal oversight of the enterprises. However, none supported the creation of a new regulatory board for all enterprises. Most believed that independence could be maintained within existing departments and agencies that are already familiar with the enterprises. In GAO's opinion, independence would be enhanced and taxpayers would be better protected by a regulator devoid of ties to other federal programs or any particular enterprise. Existing expertise could be maintained by transferring current regulators' staffs to the new regulatory board.

Contents

Executive Summary		2
Chapter 1 Introduction		16
	Background	17
	Changes in GSE Financial Condition	19
	GSEs Undertake Financial Risks to Accomplish Public Purposes	22
	Need for Improved Federal Oversight of GSEs Is Gaining Wider Recognition	25
	Objectives, Scope, and Methodology	26
Chapter 2 Authorities and Principles Needed to Protect Government Interest in GSEs		28
	Balancing Safety and Soundness With Public and Private Concerns	28
	Authorities and Principles Appropriate for GSE Regulator	34
	Comparing Current GSE Regulatory Authorities With Proposed Authorities and Principles	40
	Conclusions	42
Chapter 3 Options for Federal Oversight of GSEs		43
	Seven Options for Regulatory Oversight of GSEs	43
	Criteria for Judging Regulatory Options	44
	A Single Independent GSE Regulator Best Meets the Criteria	47
	Other Options Fail to Meet the Criteria as Well as Our Preferred Option	51
	Conclusions	56
	Recommendations to Congress	57
Chapter 4 GSE Capital Requirements Should Be Based on Risks Undertaken		58
	Principles of Regulation Guide Consideration of Options for Regulatory Capital	58
	Mix of Stress Tests and a Leverage Ratio Would Cover All Risks	61
	Regulatory Capital Could Include Equity Capital and Certain Subordinated Debt	74
	Other Methods of Setting Capital Requirements Fail to Meet Some of Our Capital Principles	75
	Setting Minimum Required Capital Levels Requires Policy Judgments	76

Conclusions 77
Recommendations to Congress 78

Appendixes

Appendix I: GSE Financial Condition 80
Appendix II: GSEs' Public Purposes 83
Appendix III: Economic Stress Tests 91
Appendix IV: Using Subordinated Debt to Meet Minimum Required Capital 96
Appendix V: Comments From Fannie Mae 98
Appendix VI: Comments From Freddie Mac 103
Appendix VII: Comments From the Federal Housing Finance Board 111
Appendix VIII: Comments From the Department of Housing and Urban Development 116
Appendix IX: Comments From the Farm Credit Administration 118
Appendix X: Comments From the Farm Credit System 122
Appendix XI: Comments From the Department of Agriculture 126
Appendix XII: Comments From Sallie Mae 129
Appendix XIII: Major Contributors to This Report 133

Related GAO Products 136

Tables

Table 1.1: GSE Net Income 20
Table 1.2: GSE Asset and Equity Growth, 1989-90 20
Table 2.1: Adequacy of Existing Authorities for GSE Oversight 41
Table 4.1: Projected GSE Capital and Possible Capital Requirement 71
Table 4.2: Possible Capital Requirement as a Percentage of Year-End 1990 Assets 72
Table 4.3: Projected GSE Annual Earnings, 1991-95 72
Table 4.4: Increase in Monthly Mortgage Payments as Interest Rates Increase 74
Table I.1: GSE Assets 80
Table I.2: Equity Capital as a Percentage of Assets 81
Table I.3: Return on Average Equity Capital 81
Table I.4: Return on Average Assets 82

Table II.1: Maximum Original Principal Amount of Conventional Mortgages That May Be Purchased by Fannie Mae and Freddie Mac 86

Figure

Figure 3.1: GAO's Preferred GSE Regulatory Structure 49

Abbreviations

ARM	adjustable-rate mortgage
FCA	Farm Credit Administration
FCB	Farm Credit Bank
FCS	Farm Credit System
FHA	Federal Housing Administration
FHFB	Federal Housing Finance Board
FHLB	Federal Home Loan Bank
FHLBB	Federal Home Loan Bank Board
FIRREA	Financial Institutions Reform, Recovery, and Enforcement Act
FmHA	Farmers Home Administration
FSLIC	Federal Savings and Loan Insurance Corporation
GSE	government-sponsored enterprise
HEAF	Higher Education Assistance Foundation
HUD	Department of Housing and Urban Development
IRS	Internal Revenue Service
LTV	loan-to-value
MBS	mortgage-backed securities
NBER	National Bureau of Economic Research
OMB	Office of Management and Budget
SEC	U.S. Securities and Exchange Commission

Introduction

The Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA) of 1989 was enacted in part to finance the resolution of hundreds of failed thrift institutions and to enhance the regulatory and enforcement powers of federal financial institutions' regulatory agencies. A provision of FIRREA required that we study the risks and the capital adequacy of financial institutions known as government-sponsored enterprises (GSE). As used in this report, a GSE is a federally chartered, privately owned, for-profit corporation designed to provide a continuing source of credit nationwide to a specific economic sector. Congress asked us to study GSEs because it was concerned about the potential financial risk to the government from GSE operations.

This is the second report on GSEs required by FIRREA. In our first report, we concluded that the federal government should protect its interest in the financial health of the GSEs by overseeing the GSEs and requiring that minimum amounts of capital be held, because ties between the GSEs and the government place the government at financial risk.[1] We reported that the government actively supervises the risk-taking and capital levels of some enterprises but not others. We concluded that the government needs to improve its oversight of the Federal National Mortgage Association (Fannie Mae), Federal Home Loan Mortgage Corporation (Freddie Mac), and Student Loan Marketing Association (Sallie Mae) by establishing a better system of monitoring, capital rules, and enforcement authorities. We noted that we would recommend ways of improving oversight of Fannie Mae, Freddie Mac, and Sallie Mae in our second report.

FIRREA also required that the Department of the Treasury study the GSEs. In its May 1990 report, Treasury similarly concluded that the government needs to improve its oversight of the GSEs to ensure that they operate in a safe and sound manner.[2] The Omnibus Budget Reconciliation Act of 1990, enacted November 5, 1990, also requires the Congressional Budget Office to study GSEs' risk-taking and government oversight of GSEs.[3]

[1]See Government-Sponsored Enterprises: The Government's Exposure to Risks (GAO/GGD-90-97, Aug. 15, 1990).

[2]See Report of the Secretary of the Treasury on Government Sponsored Enterprises, Department of the Treasury (May 31, 1990).

[3]See Controlling the Risks of Government-Sponsored Enterprises, Congressional Budget Office (April 1991).

As stated in our first report, this report discusses the authorities needed by a GSE regulator and proposes a regulatory structure and capital standard for GSEs.

Background

Congress created the GSEs to ensure that reasonably priced credit was available for agricultural businesses, home buyers, and students. Before GSEs, credit was unevenly available to such borrowers across the country in part because of restrictions imposed by banking laws and regulations. Also, investors in the national credit market generally did not prefer to invest in agriculture, housing, and higher education loans because these loans could not be sold easily, had relatively small principal amounts making them hard to administer, and had risks that were difficult to evaluate and price.

Congress created the GSEs to overcome these problems with credit availability. GSEs operate nationally to make funds available in all regions of the country. GSEs also provide a mechanism to link borrowers and lenders with investors in private capital markets. GSEs make agriculture, housing, and higher education loans more appealing to lenders and investors by creating efficient secondary markets for resale of the loans in both good and bad economic times.[4]

In our first report, we discussed the College Construction Loan Insurance Association (Connie Lee). We said that Connie Lee—which operates primarily as a bond reinsurer—has no federal regulator but is subject to state insurance regulation and appears to be subject to the same private market discipline as other private insurers. In addition, we said that Connie Lee has no federal ties that could promote unsafe risk-taking and expose the federal government to losses. We concluded that there is no compelling reason for federal monitoring and supervision of its activities. Therefore, we did not include Connie Lee in this report.

In this report, we discuss the following GSEs: the Farm Credit System (FCS) banks, including Farm Credit Banks (FCB) and Banks for Cooperatives; the Federal Home Loan Banks (FHLB); Fannie Mae; Freddie Mac; Sallie Mae; and the Federal Agricultural Mortgage Corporation (Farmer Mac).

[4]A primary lending market is where an institution makes a loan. A primary debt market is where an institution borrows money from investors by selling debt securities. A secondary market is where the loan documents and securities are sold to third-party investors and can be bought and sold at any time before their maturity.

Congress created the FCS banks between 1916 and 1933 and Farmer Mac in 1988 to serve the agricultural related credit market. The FHLBs, Fannie Mae, and Freddie Mac were created in 1932, 1938, and 1970, respectively, to serve the housing finance market.[5] Sallie Mae was created in 1972 to serve the student loan and higher education market. In appendix II, we discuss each GSE's chartered public policy purposes and how each GSE fulfills these purposes.

GSEs Operate as Portfolio Lenders and Guarantors

GSEs use two operating styles to accomplish their chartered purposes: (1) portfolio lending and (2) financial guarantee activity. The GSEs that operate as portfolio lenders either buy or make loans (assets) to hold in portfolio, or do both. Portfolio lenders obtain most of their operating funds by selling to investors debt securities that are general obligations of the GSE. In general, portfolio lenders try to maximize the difference between the interest earned on their loans and other assets and the interest paid on debt securities and other liabilities. FCS, the FHLBs, and Sallie Mae are primarily portfolio lenders.

Financial guarantors earn income through collecting fees in return for providing guarantees on securities backed by loans. Unlike portfolio lending, this operating style does not necessarily require the GSEs to borrow funds with debt securities. GSEs providing financial guarantees must accurately evaluate and price the risks associated with the securities, primarily the risk that the underlying loans will default. Farmer Mac plans to operate primarily as a guarantor of securities but may also buy and hold loans backed by the Farmers Home Administration (FmHA). Fannie Mae and Freddie Mac operate both as portfolio lenders and financial guarantors.

GSEs Have Ties to the Federal Government

GSEs have ties to the federal government that other private companies do not have. The nature and extent of these ties vary by GSE. Some federal ties impose federal controls on GSEs. For example, Fannie Mae and Freddie Mac are limited by their charters to certain activities related to one business—housing. Other federal ties lower the cost of GSE operations. For example, most GSEs have certain tax exemptions. Also, most GSEs are exempted from registering their debt securities and asset-backed securities with the U.S. Securities and Exchange Commission

[5] Fannie Mae was originally created in 1938 as part of the federal government. In 1968, Congress chartered Fannie Mae as a private corporation.

(SEC), thus facilitating the constant access to capital markets and eliminating various administrative fees. Moreover, some federal ties enhance the liquidity of GSE securities. For example, some GSE debt and asset-backed securities can be used as collateral for public deposits and for borrowing from Federal Reserve Banks and FHLBs, which makes these securities attractive investments for banks and thrifts. Finally, some GSE securities are issued by and payable through the Federal Reserve's book-entry system, which allows funds and securities to be traded electronically.

Changes in GSE Financial Condition

In the past year, the FCS asset size showed no growth, as it continued to recover from the farm crisis of the 1980s. The FHLB system added 77 commercial banks and credit unions to its membership to partially make up for the shrinkage of the thrift industry. In aggregate, however, the FHLB system lost 276 institutions and its asset size shrunk about 8 percent. Fannie Mae, Freddie Mac, and Sallie Mae continued the pattern of significant growth we highlighted in our first report. In particular, Fannie Mae and Freddie Mac continued to benefit from the desire of banks and thrifts to meet new risk-based capital requirements by converting mortgages into Fannie Mae and Freddie Mac securities. Farmer Mac certified its first two security poolers of agricultural real estate and rural housing loans, but no pools have been formed yet. The Food, Agriculture, Conservation, and Trade Act of 1990 authorized Farmer Mac to pool the guaranteed portion of FmHA-guaranteed loans and issue securities backed by pools of these loans. In this secondary market, Farmer Mac issued its first security and is moving toward issuing a second security.

Overall, GSEs had a profitable year. Table 1.1 shows the 1990 net income for each GSE and the percentage change from net income in 1989. (See app. I for additional financial information for each GSE.)

Table 1.1: GSE Net Income (As of December 31, 1990)

Dollars in millions

	1989 net income	1990 net income	Percentage change
FCS	$695	$608	−12
FHLBs	1,783	1,468	−18
Fannie Mae	807	1,173	45
Freddie Mac	437	414	−5
Sallie Mae	258	301	17

Note 1: Farmer Mac was not included here as it was still in a start-up phase and had not yet earned income.

Note 2: Percentages based on amounts before rounding.

Source: GAO, based on GSEs' financial statements audited by independent public accountants.

Although Fannie Mae, Freddie Mac, and Sallie Mae all grew in size over the past year, only FCS' and Fannie Mae's capital increased at a rate at least equal to its growth in assets and guarantees outstanding. Table 1.2 shows the percentage growth in assets, off-balance-sheet guarantees, and equity for each GSE.

Table 1.2: GSE Asset and Equity Growth, 1989-90 (As of December 31, 1990)

Dollars in billions

	1989 equity	1990 equity	Percentage change in equity	1989 assets & guarantees	1990 assets & guarantees	Percentage change in assets & guarantees
FCS	$3.4	$4.2	22	$64	$64	0
FHLBs	14.2	11.6	−18	181	166	−8
Fannie Mae	3.0	3.9	32	341	421	24
Freddie Mac	1.9	2.1	11	308	357	16
Sallie Mae	1.0	1.1	5	35	41	16

Note 1: Farmer Mac was not included here as it was still in a start-up phase.

Note 2: Equity includes stock, additional paid-in capital, and retained earnings.

Note 3: Percentages based on amounts before rounding.

Note 4: FCS equity does not include restricted capital in the FCS Insurance Fund of $350 million for 1989 and $438 million for 1990.

Source: GAO, based on GSEs' financial statements audited by independent public accountants.

Several factors affected the changes in net income, equity, assets, and off-balance-sheet guarantees of the various GSEs. The FCS equity increase results from an increase in at-risk stock and earnings. A portion of the

$608 million earned by FCS resulted from one-time transactions; consequently, it should not be viewed as an indication of future performance. FHLB capital declined at a greater rate than its asset base. Contributions to the thrift crisis resolution process played a significant role in this decline. Fannie Mae stated in February 1990 that it intended to add between $2 billion and $2.5 billion in capital by the end of 1991. Moving toward that goal, Fannie Mae retained over $1 billion in income in 1990. During 1990, however, Fannie Mae reduced its equity by repurchasing $92.8 million of its own stock.

Freddie Mac's equity did not keep up with the growth in its assets and guarantees, partially because it suffered a large loss in its multifamily mortgage business. Freddie Mac charged off $179 million in losses from its multifamily business in 1990 and made a special $100 million loan loss provision at year's end to cover anticipated losses.

Sallie Mae avoided losses associated with the failure in the summer of 1990 of the Higher Education Assistance Foundation (HEAF), a major guarantor of student loans. At the time, a question arose as to how HEAF would pay the nonfederally reinsured portion of default claims submitted by Sallie Mae and other lenders holding HEAF-guaranteed loans. Sallie Mae owned approximately $2.5 billion in HEAF-guaranteed loans. Sallie Mae officials said they expected a small portion of these loans to default, resulting in some losses to Sallie Mae unless, as Sallie Mae expected, the Department of Education agreed to pay in full the reinsurance claims filed by HEAF. Sallie Mae had also lent approximately $620 million to HEAF-affiliated secondary markets. Sallie Mae officials said these loans were more than fully secured with HEAF-guaranteed student loans that were reinsured by Education. Additionally, Sallie Mae made short-term loans to HEAF that Sallie Mae officials said were more than fully secured by receivables from Education. The Secretary of Education resolved the HEAF failure by agreeing to pay in full reinsurance claims filed by HEAF and by appointing Sallie Mae as managing agent for the orderly dissolution of the guarantor.

GSEs Undertake Financial Risks to Accomplish Public Purposes

As financial intermediaries established by federal law, GSEs take risks in order to accomplish their public purposes—that is, to help make credit reliably available to farmers, homeowners, and students. In our August 1990 report, we discussed the risks undertaken by GSEs and the mechanisms they used to control their risks.[6] In that study, we identified four types of risks that the GSEs faced.

- Interest rate risk is the risk that changes in interest rates will result in losses and decreases in a GSE's economic value.
- Credit risk is the risk of loss arising from borrowers who fail to repay their loans and/or other parties who fail to meet their obligations to administer or guarantee loans.
- Business risk is the risk that factors largely beyond a GSE's control could lead to unexpected changes in earnings, growth, or capital.
- Management risk is the potential for losses resulting from the decisions or indecisiveness of a GSE's managers.

We found that the GSEs' exposure to these risks varies. For example, FCS faces relatively higher credit risk than the other GSEs because agricultural loans are inherently more risky than residential mortgages and guaranteed student loans.[7] Conversely, Sallie Mae is exposed to relatively low credit risk because its student loans are guaranteed by state and nonprofit agencies and reinsured by the federal government.

In our August 1990 report, we also discussed how private market oversight alone is insufficient to discipline the risk-taking of GSEs. Although GSE securities are not guaranteed by the government, GSEs do—as federally established firms—borrow from the debt markets at rates very close to those on Treasury securities. These rates suggest that investors believe the government would assist a troubled GSE, rather than risk the loss of its credit-performing function and secondary effects such as possible disruption of financial markets. As a result, GSEs are able to borrow at relatively favorable rates even when a GSE's financial condition is troubled.

Unless effective federal oversight is in place, GSEs in trouble could continue to take risks and grow virtually unchecked. If such a risk-taking strategy is successful, the GSE's owners profit by higher returns. If the

[6] We are studying Fannie Mae's, Freddie Mac's, and Sallie Mae's internal risk control mechanisms in detail and plan to report the results of this study later this year.

[7] The FCS Insurance Corporation affords some additional protection to taxpayers by insuring repayment of certain FCS obligations and by its authorities to assist FCS banks.

strategy fails and the GSE becomes insolvent, the government faces the prospect of resolving the fate of a large-scale federally sponsored financial firm. This perverse incentive, which has also been found in thrift institutions and commercial banks whose deposits are guaranteed, is called "moral hazard."

Government intervention was required when FCS experienced difficulty in the mid-1980s. Less direct support was also extended to Fannie Mae in 1982 in the form of changes to its income tax treatment and regulator forbearance of its troubled condition.

The federal government employs various means and mechanisms to oversee the safety and soundness of GSEs. Nevertheless, we concluded in our August 1990 report that federal oversight of GSEs—particularly of Fannie Mae, Freddie Mac, and Sallie Mae—was inadequate for several reasons. First, the authorities available to federal regulators of these GSEs were inadequate. The Department of Housing and Urban Development (HUD) has authority to regulate both Fannie Mae and Freddie Mac, but does not have the full range of authorities available to bank regulators. Moreover, HUD's monitoring activities were not being carried out consistently and enforcement powers were lacking. For example, in the past, HUD has not used its authority to audit Fannie Mae and has not promulgated rules covering Freddie Mac's operations. As for Sallie Mae, it has no federal regulator to oversee the safety and soundness of its financial activities.

Second, we were concerned that the assignment of regulatory responsibilities for GSEs to cabinet agencies such as HUD and Treasury appeared to invite conflicts of interest and inadequate attention.

Finally, we were concerned that most GSEs were not subject to capital rules that would help control inappropriate risk-taking. Either statutory rules were nonexistent, as in the case of Sallie Mae, or had become outdated, as for Fannie Mae and Freddie Mac. For example, HUD does not have clear authority to set capital rules for Fannie Mae and Freddie Mac based on the risks they undertake.

GSE Capital Requirements

In our August 1990 report, we discussed how GSEs hold equity capital as one technique to protect against loss.[8] When GSEs experience unforeseen

[8]Generally, equity capital includes stock, additional paid-in capital, and retained earnings.

losses, they depend on their capital to keep them from becoming insolvent. Each GSE's senior management establishes internal capital guidelines based on the GSE's funding strategy and the nature of its operations and risks. In addition, we reported that some GSEs had minimum capital requirements established by law or regulation.

Sallie Mae has no federal regulatory capital requirements. FCS institutions are subject by law to a minimum risk-based capital requirement established by their regulator, the Farm Credit Administration (FCA). FCA also regulates Farmer Mac, but currently Farmer Mac does not have any regulatory capital requirement. Moreover, it is unclear whether FCA can establish capital standards for Farmer Mac. The FHLBs operate under a minimum debt-to-capital ratio established by their regulator, the Federal Housing Finance Board (FHFB). Fannie Mae and Freddie Mac are required by legislation to meet a debt-to-capital ratio. HUD has the authority to raise this ratio, which in effect lowers these GSEs' capital requirement. It is unclear from the statutory language whether HUD could set capital at a higher level or set a capital requirement that is based on the risks undertaken by the GSEs rather than the amount of on-balance-sheet debt. We found that this capital rule is inadequate to protect the government against undue risk-taking by these two GSEs because the rule (1) very broadly defines capital to include loss reserves and subordinated debt,[9] (2) does not consider the credit risk of a major part of the GSEs' business—off-balance-sheet mortgage-backed securities (MBS), (3) does not consider interest rate risk, and (4) does not differentiate among the degrees of risk in different types of mortgage assets.

Changes in Regulation

Federal regulation of the FHLBs, Fannie Mae, Freddie Mac, and Sallie Mae changed slightly since our last report. These changes, however, have not materially affected the regulatory deficiencies highlighted in our first report. This section documents the scope of these changes.

Federal Home Loan Banks

FIRREA created FHFB in August 1989; the Board was composed of the Secretary of HUD and four presidential appointees. The President nominated two members in April 1990 and two in August 1990. The Senate Banking Committee refused to hold confirmation hearings on the President's nominations because of a dispute regarding the status—full or part

[9]Some GSEs' statutes define regulatory capital to include subordinated debt. Subordinated debt is like other debt, except its holders receive payment after the firm repays all its other creditors but before it pays its preferred and common stockholders.

time—of the four appointed members. The President temporarily circumvented the confirmation process by appointing the nominated members during a legislative recess on December 12, 1990. The names of the appointed members were sent to the Senate in February 1991 for confirmation. Unless confirmed by the Senate, the appointments expire at the end of the current congressional session. In effect, then, FHFB was governed solely by the Secretary of HUD for a 16-month period.

Fannie Mae and Freddie Mac

HUD established a Financial Institutions Regulatory Board in September 1989 to coordinate HUD's various regulatory responsibilities. HUD has hired a staff director for this Board and is currently adding staff. Since our August 1990 report, HUD has—according to HUD officials—drafted new regulations for Fannie Mae and Freddie Mac. A HUD official said these regulations were sent to OMB on March 19, 1991, but have not yet been released for public comment.

HUD also explored the possibility of using federal bank examiners to conduct examinations of Fannie Mae and Freddie Mac and concluded that using private contractors along with HUD staff offers a better alternative. HUD officials told us they plan to hire outside consultants and begin examinations of Fannie Mae and Freddie Mac in the beginning of 1992.

Sallie Mae

The Department of the Treasury has authority to review Sallie Mae's books and records and has recently completed, with the assistance of the Department of Education's Inspector General, a quality control review of Sallie Mae's 1990 financial audit. Their report is scheduled to be released in mid-1991.

Farmer Mac

FCA unsuccessfully attempted to clarify its authority to set minimum capital rules for Farmer Mac.

Need for Improved Federal Oversight of GSEs Is Gaining Wider Recognition

The Treasury Department and we concluded from our first-year studies of GSEs that improved federal oversight was needed. Some GSEs who were unsure about the need for legislative action now apparently believe such action is appropriate. For example, Freddie Mac officials commented on our August 1990 report that they felt that HUD had sufficient authorities to carry out its regulatory responsibilities. This year Freddie Mac said that it would not oppose a clarification of HUD's regulatory authorities. Similarly, Fannie Mae, which offered no opinion last year as to whether strengthened regulation was appropriate, this year has drafted a legislative proposal to give HUD additional authorities. HUD supports clarification of its authorities but believes aspects of the

Fannie Mae and Freddie Mac draft legislative proposals would weaken rather than strengthen its oversight authority. Sallie Mae, however, continues to believe that strengthened regulatory oversight is unnecessary and inappropriate for its activities. It believes that creating further distance between Sallie Mae and the government offers a better alternative than regulation, which would reinforce the federal ties.

A legislative proposal is certain to be considered. The Omnibus Budget Reconciliation Act of 1990 directs that committees of jurisdiction of the House and Senate each report legislation by September 15, 1991, to address the need for improved oversight of GSEs. Furthermore, the Treasury Department is also required to submit recommended legislation to Congress for GSE reforms. These developments suggest a growing consensus that GSE oversight should be improved. Much more controversial is the issue of how this oversight should be done.

Objectives, Scope, and Methodology

FIRREA required that we examine and evaluate a variety of issues relating directly to GSEs, including the degree and types of risks undertaken, the most appropriate methods of quantifying these risks, and the actual level of risk with respect to each GSE. FIRREA also required that we study various issues relating to GSEs' capital, including the appropriateness of risk-based capital standards; the costs and benefits of risk-based capital, considering each GSE's purpose under law; and the overall level of capital appropriate for each GSE.

In our first report, we discussed the degree, types, and levels of risks undertaken by GSEs; methods for quantifying the risks; the controls in place to minimize risk; the level of capital they hold to guard against this risk; the appropriateness of risk-based capital standards; and the effectiveness of government and private markets in overseeing GSE risks and capital. We found that additional oversight of Fannie Mae's, Freddie Mac's, and Sallie Mae's risk-taking and capital levels is needed.

To complete our FIRREA requirements, we are issuing this report plus an additional report that should be released later this year. This report updates information provided in the first report and presents our proposals for improving federal oversight of GSEs. It discusses (1) the authorities that should be granted to a federal GSE regulator, (2) the structuring of a regulatory body within the executive branch of government, and (3) how capital rules for GSEs should be fashioned. We are preparing an additional report on work we undertook to check Fannie

Mae's, Freddie Mac's, and Sallie Mae's compliance with their own stated internal policies and procedures to control risk.

To develop recommendations for an appropriate regulatory framework, we first designed key criteria to apply to any GSE regulator. We developed the criteria on the basis of our previous work on financial institution regulation, our review of related literature and regulatory laws, and our discussions with GSE regulators and GSE officials.

Next, we explored the regulatory options outlined by the Treasury Department, the GSEs, and their regulators. We prepared a working paper explaining our criteria and the available regulatory options. We distributed this paper to the Treasury Department, congressional committees, the Congressional Budget Office, the GSEs, and GSE regulators for comments and suggestions. The aggregation of these comments and the working paper formed the foundation of this report's proposed regulatory structure for GSEs.

We approached capital requirements in a similar fashion. We designed criteria for regulatory capital rules on the basis of our experience with financial regulation and on input from national rating agencies, industry analysts, academic experts, the GSEs, and their regulators. We discussed our proposed capital standards with the GSEs, their regulators, rating agencies, and Wall Street analysts. We solicited comments and suggestions, which we then considered in developing this report's capital standard recommendation.

Finally, we reviewed the GSEs' charters and legislative histories to determine what their purposes are and the impact that our regulatory structure and improved capital standards might have on their ability to fulfill these purposes.

We did the work underlying this report between August 1990 and April 1991 using generally accepted government auditing standards. We requested comments on a draft of this report from all the enterprises, their regulators, and the departments of Agriculture and Education. Fannie Mae, Freddie Mac, FHFB, HUD, FCA, the Farm Credit System, the Department of Agriculture, and Sallie Mae provided written comments, which appear along with our responses in appendixes V through XII.

Authorities and Principles Needed to Protect Government Interest in GSEs

To protect the government's interest in GSEs adequately and ensure that a GSE carries out its public purposes in a safe and sound manner, a GSE regulator needs authorities to

- establish rules to implement a GSE's charter, including rules to define safe and sound practices;
- monitor the performance of a GSE in accomplishing its public purpose in a safe and sound manner;
- set minimum capital standards;
- enforce the rules and minimum capital standards that have been established; and
- levy assessments to cover the costs of oversight and supervision.

These authorities are generally commensurate with those of bank regulators. As we noted in our first report, this level of federal oversight is not consistently achieved for GSEs. HUD does not have all the enforcement authorities nor the authorities over capital that it needs to oversee Fannie Mae and Freddie Mac adequately. The Treasury Department's only authority in overseeing Sallie Mae is access to Sallie Mae's books and records. Neither HUD nor Treasury have actively used the authorities they have to oversee the GSEs.

Balancing Safety and Soundness With Public and Private Concerns

In our August 1990 report, we concluded that the bank regulatory model provided a useful starting point for developing a safety and soundness oversight structure for GSEs. But certain GSEs and regulators have raised two major questions about our adaptation of this model. First, to what extent should the safety and soundness oversight functions be separated from the general oversight of GSEs' statutory purposes? Second, under what conditions and to what extent should a GSE regulator be allowed to involve itself in corporate governance of a GSE? That is, how intrusive should a GSE regulator be in the operations of a GSE? These issues are explored in the following paragraphs.

Should Safety and Soundness Be Separated From General GSE Oversight?

In its May 1990 report on GSEs, the Treasury Department endorsed the principle that for GSEs "the program regulator should be different from the implementer of financial safety and soundness standards." In Treasury's opinion, separating these two regulatory functions will minimize risk to the taxpayers by removing a perceived or actual conflict of interest. Treasury suggests that the program regulator would have authority to approve new programs and would be responsible for ensuring that the GSE meets its congressional mandate by effectively

serving intended beneficiaries. In essence, Treasury proposes one regulator to provide general GSE oversight and another to provide financial oversight.

Our position differs from Treasury's. We do not believe that the regulation of a GSE's statutory activities can be effectively separated from safety and soundness considerations. However, we do believe it important to differentiate between a safety and soundness regulator (1) confirming a GSE's compliance with the public purposes specified in its statute (which we find acceptable) and (2) promoting a certain economic sector or GSE (which we find unacceptable).

In our first report, we cited concerns about potential conflicts between responsibilities to administer or advocate federal programs and oversee safety and soundness. We were familiar with the conflicts that arose when the Federal Home Loan Bank Board (FHLBB) served as both a promoter and a financial regulator of the thrift industry. Also, FCA was moved out of the Department of Agriculture in 1953 to insulate it from political influence and, beginning in 1985, its powers were changed to make it an arm's-length regulator of, rather than an advocate for, FCS. We were concerned that placing responsibility for financial regulation of Fannie Mae and Freddie Mac within HUD might invite conflicts between HUD's responsibilities for administering housing policy and programs and its responsibility for financial oversight of Fannie Mae and Freddie Mac. However, we did not conclude that each GSE would need two separate regulators—one for safety and soundness and the other for general oversight of statutory purposes.

Our analysis suggests that one regulator could oversee both compliance with the statutory purposes and financial health of a GSE, provided that the regulator has no other responsibilities that could create a conflict of interest in its oversight of the GSE. In the past, when there has been some problem with conflicting roles and responsibilities of a GSE regulator—such as with the FHLBB and FCA as advocates for the GSEs they regulated—Congress has responded by enhancing independence of the regulatory function while entrusting dual responsibilities—for financial safety and soundness as well as achievement of public purposes—to a single federal entity. For example, FCA has maintained regulatory responsibility over FCS including authority to approve new FCS activities and authority to charter and liquidate system institutions. No "program" oversight of FCS institutions is carried out by the Department of Agriculture.

We would not expect a high degree of conflict between a GSE's specified public purposes and safety and soundness issues for several reasons. First, the statutes generally require the GSEs to accomplish specific public programs in a profitable manner. As discussed in appendix II, the charters tend to define GSEs' public purposes in general terms. When a specific public purpose is cited, the charters also acknowledge the importance of the economic considerations of such activities. For example, Fannie Mae's and Freddie Mac's charters specify a purpose of providing "ongoing assistance to the secondary market for home mortgages (including mortgages securing housing for low- and moderate-income families involving a reasonable economic return [emphasis added]). . . ."[1] Similarly, the FHLBs have statutory responsibility to establish and maintain two low- and moderate-income housing programs. Each FHLB must contribute a fixed percentage of the previous year's net income provided that an aggregate minimum dollar amount is contributed. This limitation helps ensure that these programmatic activities do not threaten the financial soundness of the firms.

Second, we see limited opportunity for a regulator to interpret the charters in a way that would force a GSE to undertake a specific activity that might be financially threatening. The charters generally allow the GSEs the freedom to exercise their business judgment by authorizing but not requiring them to undertake various activities. For example, Sallie Mae is authorized to provide student loan insurance if requested by the Secretary of Education. Sallie Mae, however, is not required by its charter to undertake this activity. Similarly, Fannie Mae and Freddie Mac are authorized, not required, to purchase, service, sell, lend on the security of, or otherwise deal in conventional mortgages.[2] These GSEs, while constrained to certain types of mortgages and certain dollar limitations, have discretion in choosing whether to deal in mortgages offered by various financial institutions. HUD may require that a reasonable portion of Fannie Mae's or Freddie Mac's mortgages be related to the national goal of providing adequate housing for low- and moderate-income families, but with reasonable economic return to the corporation.

Attempts by federal agencies to force GSEs to undertake activities that are not financially viable or that are outside of the statutory charter would presumably be met with resistance by the GSE. For example, Freddie Mac reported in its March 31, 1989, information statement that

[1]See 12 U.S.C. 1451 and 1716.

[2]See 12 U.S.C. 1454 and 1717.

FHLBB had intended to use its best efforts to cause Freddie Mac to purchase securities from the then-insolvent Federal Savings and Loan Insurance Corporation (FSLIC) in the event of FSLIC's appointment as receiver for an insolvent thrift. Freddie Mac resisted and its resources were not used to aid FSLIC.

If a GSE tried to undertake activities not contemplated by its charter, its regulator or Congress would presumably block it. For example, in March 1990 the FHLB of Dallas proposed a pilot program in which the Dallas Bank would purchase and pool loan participations from member thrift institutions that faced more stringent loan-to-one-borrower limits after FIRREA was passed. The Dallas Bank proposed selling securities backed by these loans and holding a 10-percent subordinated interest in the security. This project was not approved by FHFB which questioned both the FHLBs' legal authority to undertake such an activity and the risk involved. In another case, Congress amended Sallie Mae's charter to prevent it from owning a depository institution after Sallie Mae purchased a thrift.

Finally, a number of GSE officials and GSE regulators told us that they believed separating safety and soundness regulation from general statutory oversight would create problems. GSE officials from Fannie Mae and Freddie Mac were worried about regulatory delays and indecision, forcing them to miss opportunities to introduce new or revised products. They also cited issues of possible jurisdictional questions and difficulties in finding a forum to resolve disputes between the two regulatory bodies. Officials from FCA, FHFB, and HUD thought it would be difficult to grant one regulator the authority to evaluate a GSE's compliance with its statutory purpose without also evaluating the safety and soundness of its activities.

The evidence suggests that safety and soundness and oversight of public purposes can be undertaken within a single federal regulator as long as this regulator has no advocacy responsibilities or additional responsibilities for administering housing, educational, or agricultural programs, which could create a conflict of interest in regulating the GSE. In our opinion, a single regulator may be better able than two regulators to balance the charter's public purposes with the profitability needed to ensure the long-term viability of GSEs.

To What Extent Should a Regulator Be Involved in a GSE's Corporate Affairs?

A GSE regulator should usually not involve itself in a GSE's business affairs by approving budgets, salaries, hiring decisions, etc. Such powers should fall under the domain of the GSEs' boards of directors unless the regulator has determined that the GSE is operating imprudently. There are only a few GSEs and so federal oversight of their activities need not be carried out through intrusive monitoring and directing of their business affairs. Rather, a GSE regulator needs to develop mechanisms by which it has timely and accurate knowledge of a GSE's changing condition and business environment. We believe the regulatory staff should be conducting its monitoring activities without becoming involved with GSEs' day-to-day operations.

Some GSE officials have expressed concern that a strengthened GSE regulator might be tempted to interfere with a GSE's business decisions in a way that would be detrimental to the GSE. Sallie Mae, whose officials said it is opposed to any further oversight, cited their concern that

> "increased regulation will, over time, stifle creativity and impede the ability of Sallie Mae to manage its risk and quickly and creatively respond to programmatic initiatives requested or supported by our congressional overseers. We do not want to begin to manage our business 'for the regulators.' That style of management has not served other industries well and would be a stark contrast to the attention management now gives to properly balancing marketplace risk pressures and our public purpose."[3]

Fannie Mae has suggested several principles that should apply to the oversight of GSEs, including principles suggesting that Fannie Mae and Freddie Mac be allowed to manage their corporate affairs. Fannie Mae has endorsed the notion of a regulator having a highly professional examination function so that the government can understand Fannie Mae's business without intruding into the corporate decision-making processes.

Freddie Mac has also espoused the need for balance between the GSE's public and private purposes. Freddie Mac's Chief Executive Officer said that certain authorities granted to FHFB, such as the authority to approve FHLB budgets and the authority to appoint officers and directors for FHLBs, would be inappropriate for Freddie Mac's regulator. In his opinion, regulatory interference is less threatening for the thousands of commercial banks, but it would be much more of a concern for the GSEs which are few in number. Both Fannie Mae and Freddie Mac have

[3]Letter dated March 7, 1991, from Timothy G. Greene, Executive Vice President and General Counsel of Sallie Mae, to Jill K. Ouseley, Director, Division of Market Finance, Department of the Treasury.

proposed legislative language for enhanced oversight that includes a common delimiter on the regulator: "The powers. . . [of the regulator] shall not extend to the business affairs of the corporation, which are responsibilities vested in the board of directors of the corporation." A HUD official said HUD does not favor this language because the term "business affairs" could be interpreted so as not to allow the regulator to involve itself in any type of business affairs, even when the financial interests of the government were being affected.

Except for FHFB, current GSE charters do not provide a regulator with powers to involve itself routinely in the internal business affairs of the corporation; we see no reason to change this restriction. Each member of the GSEs' boards of directors has responsibilities to ensure that the GSE operates according to its charter and that its managers protect the shareholders' interests. As long as the directors are effectively executing their fiduciary and public responsibilities, the GSE regulator would principally need to monitor the activities and financial condition of the GSE. We would expect that the GSE regulator would first use the GSE's corporate governance structure to correct any problems that might be identified through examination. Should corporate boards and managers not adequately correct an identified safety and soundness problem or failure to comply with charter mandates or restrictions, the regulator would need enforcement powers to compel corrective actions.

FHLB officials said that FHFB has powers to involve itself in "broad management oversight of the Banks," because the entire system is liable for debt issued by individual FHLBs, each cooperatively owned by its member-borrowers and managed by local boards of directors. The FHLBs do not have a private corporate governance mechanism for the system as a whole. FHFB now serves this role. It has explicit authorities to approve budgets and set salaries. These powers give it the ability to override the decisions of local boards of directors so as to maintain consistency in system practices. Both FHLB and FHFB officials have indicated that they believe the authorities granted to FHFB are necessary and appropriate to help coordinate the activities of the FHLB system as a whole.

We are concerned that having broad management oversight powers may undermine FHFB's regulatory independence. By involving itself in the business operations of the FHLB system, and by making business decisions on behalf of the system, FHFB is not arm's length from the outcome of those decisions. In effect, it becomes an advocate for the system. As a result, FHFB would not be an impartial judge of outcomes arising from

such decisions. A better way to provide centralized accountability and control would be to establish a systemwide governance mechanism within the system overseen by an arm's-length regulator.

Authorities and Principles Appropriate for GSE Regulator

Two factors influenced the development of the authorities and principles we propose for federal oversight of GSEs. First, enterprise regulatory authorities should be similar to those that exist for banks because large-scale bank failures and enterprise failures both could represent large financial costs to the government and possible disruption to financial markets. Second, federal GSE oversight should supplement corporate governance because GSEs serve both public and private interests. Thus, such oversight should not be so intrusive that it interferes with GSEs' ability to accomplish their purposes through normal business operations.

Authority to Set Rules

To protect the government's interest in achieving a GSE's public purpose in a safe and sound manner, the GSE regulator must have the authority and responsibility to make rules that set the boundaries for safe GSE operations. A federal regulator needs (1) general authority to set rules to ensure that the GSE's statutory purposes are accomplished and (2) specific responsibility to set rules to regulate safety and soundness. Having a federal regulator with such authorities permits orderly interpretation of the statutes without involving Congress or the courts.

Specific regulations should add consistency to the regulatory process and provide the GSEs with a clear framework in which to operate. Rulemaking is not meant to allow the regulator to control the daily business operations of the GSEs. Nor is it meant to prohibit or restrain GSE management from taking advantage of business opportunities in a timely manner. In this regard, we would not expect the regulator to set rules over practices such as internal personnel matters that most charters envision being within the domain of corporate decision-making. We believe that the following principles would enable a regulator to protect the government's interest within the private framework established in the GSEs' charters.

- The rules should define regulatory expectations in sufficient detail to enable the GSE to determine the regulatory consequences of its business decisions. Rules would specify (1) expectations for routine and exception reporting to the regulator and (2) activities that require notification

of or approval by the regulator. In our judgment, to ensure safe operations, the regulator would not need to approve new business activities that are authorized by the GSE's charter, such as offering variations of current product lines. However, to protect against undue risk-taking, it would seem appropriate for the regulator to require the GSE to notify it when new products are offered and to limit the overall amount of exposure from the new product until its risk can be assessed.

- The rule-making authority should generally involve rules that enhance or protect the safety and soundness of the GSE, enhance the regulator's capacity to monitor safety and soundness, and ensure compliance with the purposes of the charter. Thus, the rules should ensure that the GSE accomplishes its chartered purposes in a safe and sound manner.
- Promulgation of rules should conform to the Administrative Procedures Act to ensure a fair and orderly rule-making process. For example, public comment should be required before adoption of rules. This provision would allow the GSE, its competitors, market participants, and other interested parties to voice their concerns before a rule becomes final.

Monitoring Financial Performance and Compliance With Regulations

The GSE regulator should have authority and responsibility to monitor and examine all GSE operations and have access to all GSE books and records, including internal and external audit working papers and reports. The purpose of such authority is to have an ongoing assessment of the financial health of each GSE and to ensure that its operations are consistent with its charter.

GSEs are large financial institutions with complex operations and data systems. To evaluate these operations, we would expect the regulator to supplement existing internal and external audits with its own periodic monitoring and examination. Before relying on the auditors' work, the regulator would need to assess the auditors' competence and independence from management. The regulator would also need to evaluate the auditors' actual work for each GSE, including examining their working papers and testing their results.

We believe the following principles are necessary for a regulator to meet its monitoring and oversight responsibilities.

- Monitoring of GSE activities should focus on the GSE's compliance with applicable laws and regulations. This focus should provide the regulator with the information necessary to ensure that the GSE's public purposes are met in a safe and sound manner.

- The level of monitoring must be sufficient to provide an adequate understanding of the GSE's operations, financial condition, and risk to the government. Consequently, the regulator could vary the amount and type of monitoring for each GSE on the basis of its judgment of (1) the GSE's capital adequacy and ability and willingness to take risks and (2) the adequacy of information available from other sources such as internal and external auditors.
- Rapidly expanding business volume, entry into new activities, and issuing or purchasing of new types of debt instruments should trigger increased regulatory monitoring. High business volume or new activities can pose significant dangers to GSE safety and soundness and significant challenges to regulatory capabilities. For example, the former FHLBB failed to monitor or control the expansion of thrifts into new activities. Such expansion, unchecked by adequate monitoring, contributed heavily to thrift losses in the 1980s.
- The regulator will need authority to access all information, systems, and personnel on a timely basis. To facilitate this access, the GSE should provide the regulator with regular reports, including reports on the system of internal controls, information on financial performance and condition, and changes in business strategies.
- To provide a mechanism for effective congressional oversight, the Comptroller General should be granted authority to audit or examine each GSE and its regulator.

Some consensus is emerging among certain GSEs and their regulators that examinations should take place at least annually. Both Fannie Mae and Freddie Mac have developed draft legislation that includes such a provision. Similarly, FHFB officials told us that they are planning to conduct annual examinations of each FHLB. FCA is to examine each FCS bank and Farmer Mac annually. Such an annual examination is consistent with positions that we have taken in a recent report to require annual on-site examinations of banking institutions.[4]

Setting Minimum Capital Requirements

Requiring that GSEs maintain a minimum amount of capital provides several public benefits. Foremost, it provides some assurance that an adequate buffer exists to absorb unforeseen GSE losses so they do not become taxpayer losses. Capital should give the regulator time to recognize and act on conditions generating losses. Second, a capital standard helps ensure that GSE shareholders have greater incentive to demand that management not take undue risks. Capital standards that require a

[4]See Deposit Insurance: A Strategy for Reform (GAO/GGD-91-26, Mar. 4, 1991).

substantial amount of equity capital would give stockholders much to lose from risky or unsafe practices. Finally, a capital standard provides the government with a mechanism to influence GSE risk-taking without involving itself in daily business operations. It encourages GSEs to take only prudent risks, consistent with their mission. If these risks produce losses, such losses would be borne by the private shareholders.

We developed five principles that we believe a capital standard needs to follow to accomplish its governmental purposes. The first two principles are meant to accomplish the overall purpose of protecting the government's interest; the last three are meant to refine the standard so that it does not interfere with the GSEs' ability to accomplish their public and private goals. We believe that these principles will allow the GSEs to compete fairly with each other as well as other competitors.

- To fully protect the government's financial interests, a GSE's minimum capital requirement must be sufficient to cover all risks the GSE undertakes. These risks include both measurable risks—interest rate risk and on- and off-balance sheet credit risk—and nonmeasurable risks—management risk and business and operating risks. Thus, the greater the risks of a particular business strategy, the greater would be the capital requirement.
- The elements of regulatory capital should include only those items that protect the government's interests. "Borrower-protected stock" within FCS would fail to meet this test as would subordinated debt that would trigger a default when scheduled payments are missed.
- The minimum capital requirement should be clear and prospective so that the GSE can understand the regulatory capital consequences of each business decision. This principle ensures that the GSE can consider alternative business strategies in light of all costs, including costs created by the capital requirements. This principle permits GSEs to make day-to-day business decisions in light of changing conditions in credit markets and frees them, to the greatest extent possible, from regulatory controls that could stymie their ability to improve customer services and to compete with other market participants.
- A minimum capital requirement should avoid giving any GSE an undue advantage or disadvantage in competing with other market participants. This principle ensures that GSEs compete fairly with each other and with others in their market.
- In the case of FCS institutions, the capital requirement should continue to be patterned after those of competing commercial banks and other regulated financial institutions, taking account of the differences between

FCS institutions and other financial institutions, so as to maintain a "level playing field" in that market.

Both Fannie Mae and Freddie Mac prefer that the minimum capital requirement be established in statute rather than through regulation. We believe that specific authority to set capital rules within boundaries established in statute should be given to a regulator in order to allow the capital rule to be revised through regulatory action as market practices change. HUD's current lack of explicit authority to set capital rules has allowed the minimum capital requirements placed on Fannie Mae and Freddie Mac to become seriously outdated.

Enforcing Regulations by Imposing Appropriate Sanctions

Regulations and capital requirements have little effect unless a GSE regulator has authority to enforce them. Without enforcement authority, all other regulatory authority and responsibilities could be rendered ineffective by the GSEs. We believe the following principles are necessary for effective enforcement of GSE rules and regulations.

- The regulator should be able to act in a timely manner to enforce rules designed to ensure safe and sound practices. We have found in other work that prompt and forceful enforcement actions by bank regulators are associated with improvements in bank conditions.
- The regulator's enforcement actions should be the result of a clear, fair, and reasonable process that would withstand judicial review.
- Our work with banks and thrifts shows that, to be effective, the regulator needs to take prompt enforcement actions when safety and soundness problems are identified. Enforcement actions available to bank and thrift regulators include informal actions, such as requiring plans to rectify identified problems, and range to more serious actions including cease and desist orders, orders for the removal of officers and directors, and civil money penalties. An enforcement scheme along the lines of that applicable to banks and thrifts should be adopted for the regulation of GSEs.
- Certain enforcement actions should be mandatory when prespecified conditions are met. Enforcement rules would specify, to the extent possible, the circumstances under which enforcement actions would occur and the nature of those actions. These rules would be similar to the "tripwire" system we recommended to improve the bank supervisory system. For example, increasingly severe symptoms of problems such as

serious asset, earnings, or capital deterioration would trigger increasingly severe enforcement actions.[5]

Preliminary draft legislative proposals developed by Fannie Mae and Freddie Mac provided a limited number of enforcement options that would be available to their regulator should Fannie Mae or Freddie Mac fall below (1) 90 percent of the statutory minimum capital standard for two consecutive quarters or (2) 80 percent of the statutory minimum for one quarter. (Each proposal envisions a different standard for minimum capital.) Such provisions fail to meet our principles in several ways. First, the proposal would allow Fannie Mae or Freddie Mac to be "undercapitalized" without being subject to enforcement action. Second, we are concerned that capital deficiency is a late rather than an early signal of financial difficulties. Losses that reduce capital can occur years after problem assets are acquired. We prefer that a regulator have specific authority to identify and correct problems early, before they affect capital. Third, our reviews of bank examination reports and of failed banks show that capital problems are typically caused by problems in bank management that lead to problems in assets and earnings. When an examination identifies problems in the management or assets of a GSE, we expect that the GSE owners and managers would correct it. However, we believe that the federal regulator should have enforcement authorities to correct such situations before capital is affected, should management fail to do so. Finally, we are concerned that the draft legislative proposals do not include the range of enforcement authorities (removal of officers, cease and desist orders, or civil money penalties) that may be needed in cases of repeated noncompliance with rules or severe regulatory transgressions by officers of the GSE.

A Freddie Mac official told us that Freddie Mac is still evaluating regulatory enforcement options and does not have a final position on regulatory authority. Freddie Mac generally supports the concept of tripwires because it is consistent with the goal of establishing clear and prospective regulations.

[5]For a full discussion of tripwires, see Deposit Insurance: A Strategy for Reform (GAO/GGD-91-26, Mar. 4, 1991) pp. 59-82, and Bank Supervision: Prompt and Forceful Regulatory Actions Needed (GAO/GGD-91-69, Apr. 15, 1991).

Authority to Levy Assessments to Cover Supervisory Costs

In our first report, we pointed out that the traditional practice of enabling a regulator of financial institutions to recoup its costs through assessments on the regulated entity was not available to HUD. Such a practice helps ensure that the costs of such regulation are borne by the GSEs that benefit from their government ties. It also helps ensure that the funding for oversight of the important activities of financial firms is not constrained by competing federal responsibilities. Currently, HUD's responsibilities to oversee Fannie Mae and Freddie Mac must compete for limited resources with HUD's other programmatic responsibilities. Both Fannie Mae and Freddie Mac support legislative changes to enable their regulator to charge for examinations. We would suggest that the regulator be given authority to recoup its general oversight costs (not just direct costs of examination), so that it requires no appropriated funds for support. Both FHFB and FCA have such authorities.

Fannie Mae and Freddie Mac also support providing their regulator with the authority to hire examination staff without being constrained by civil service salaries so long as comparable benefits were being or could be provided to employees of other bank or GSE regulatory agencies. Such freedom from civil service salary scales now generally applies to all employees of bank regulatory agencies, FCA, and FHFB.

Comparing Current GSE Regulatory Authorities With Proposed Authorities and Principles

In our first report, we cited in general terms the major shortcomings of the existing GSE regulatory structure. The following table compares the authorities we believe should be provided to a GSE regulator with those currently established by statute. When an authority is currently specified, the table indicates the agency that has the authority. Otherwise, the table notes that the charter is unclear in its provision of an authority ("unclear") or has not provided this authority ("no").

Table 2.1: Adequacy of Existing Authorities for GSE Oversight

Type of authority	FCS	FHLBs	Fannie Mae	Freddie Mac	Sallie Mae	Farmer Mac
General regulatory	FCA	FHFB	HUD	HUD	No	FCA
Monitoring—audit/examination	FCA	FHFB	HUD	HUD	Treasury[a]	FCA
Set minimum capital	FCA	No	No	No	No	Unclear
Enforcement						
Cease & desist	FCA	Unclear	No	No	No	FCA
Civil money penalties	FCA	No	No	No	No	FCA
Remove officers	FCA	FHFB	No	No	No	FCA
Assess GSE for supervisory costs	FCA	FHFB	No	No	No	FCA
GAO audit authority	Yes	Yes	Yes[b]	Yes	No[c]	Yes

Note: Each charter has somewhat different language authorizing the various types of regulatory powers.

[a]Sallie Mae must be audited by an independent public accountant, and Treasury has access to Sallie Mae's books and records to confirm the results of the audit.

[b]GAO has authority to audit mortgage transactions.

[c]GAO has authority to audit the Guaranteed Student Loan Program but not Sallie Mae's total operations.

We note that providing specific and general authorities in statute does not ensure that these authorities will be exercised appropriately by the regulator. HUD, for example, has not used its auditing and examination authority to conduct on-site examinations although it has said it plans to do so in the future. Also, Treasury had not fully exercised its authority to review Sallie Mae's books and records, relying—until this year—on desk reviews of the audit conducted by the independent auditors. In our opinion, congressional oversight of federal regulatory agencies is the best means to ensure that GSE regulatory responsibilities, once assigned, are being carried out effectively.

In chapter 3, we discuss various options for structuring the GSE oversight responsibilities within government. We believe that the placement of such responsibilities can affect the vigor with which they are exercised. That is, a federal agency with many competing programs and priorities may not, over time, place as much emphasis on overseeing GSEs as an independent agency with the sole purpose of overseeing GSEs' risk-taking.

Conclusions

The federal government has two important interests in GSEs: (1) that GSEs accomplish their public purposes and (2) that they operate in a safe and sound manner so that GSE losses do not become federal expenses. In our opinion, a single regulatory entity can effectively oversee both the safety and soundness aspects of GSE activities and the achievement of statutory purposes as long as the regulator does not have conflicting responsibilities to (1) implement or oversee federal housing, agriculture, or educational programs or (2) sponsor or advocate the market in which a GSE operates.

The GSEs have been structured along corporate governance structures to control business activities. To complement the corporate governance and to ensure that the purposes of GSEs are accomplished in a safe and sound manner, each GSE needs a regulator with the authority to (1) set rules, (2) monitor the GSE's activities, (3) set minimum capital rules, (4) enforce the rules that have been established, and (5) assess the GSEs for the costs of federal oversight. GSEs currently have inconsistent federal oversight—partly because regulatory authorities have not been consistently assigned to GSE regulators and partly because these authorities have not always been fully exercised.

Regulatory actions should supplement existing corporate governance controls at each GSE. To protect the government's interest effectively, a GSE regulator should actively monitor the GSE's activities and financial condition to ensure that corporate controls are working effectively. The amount of federal oversight needs to increase when a GSE enters new business or grows dramatically. A federal regulator also needs to act forcefully and promptly in response to problems with a GSE's financial condition or performance—first by urging corporate officials to correct problems, then by using enforcement actions should problems remain uncorrected.

Options for Federal Oversight of GSEs

An important first step to remedy the inconsistencies and inadequacies in current federal regulation of GSEs that were outlined in chapter 1, and discussed in detail in our August 1990 report, is for Congress to provide a federal regulator with all the authorities and responsibilities needed to fully protect the government's interest. The next step is to design a regulatory structure to ensure that these authorities and responsibilities are effectively administered.

Congress could simply amend current GSEs' regulators' authorities as needed to ensure that each could establish rules governing GSE operations, monitor GSEs' activities and condition, set capital requirements for GSEs based on the risks they undertake, enforce all applicable statutes and regulations, and assess the GSEs for the costs of regulation. However, this structure would not address past problems where the regulators have not effectively used their authorities. Recent regulatory experiences during the thrift and FCS crises indicate to us that an effective GSE regulator should be structured so that it is objective and independent from GSEs, their competitors, and all advocacy responsibilities; prominent in government; and efficient in its operations. A high-level, independent Federal Enterprise Regulatory Board, created to oversee the activities of all GSEs, meets these criteria better than any other currently available option.

Seven Options for Regulatory Oversight of GSEs

In our first report, we said that we would recommend a better system of regulation for Fannie Mae, Freddie Mac, and Sallie Mae. To make this recommendation, we reviewed the current regulatory structures for each GSE and various alternatives for GSE regulatory reform and identified four options designed to improve oversight of Fannie Mae, Freddie Mac, and Sallie Mae. The options assume the current regulatory structure remains in place for the other GSEs.

We considered other options as well. We identified additional options that look beyond the current regulatory shortcomings at Fannie Mae, Freddie Mac, and Sallie Mae. For these options, we took a broader view of GSE regulatory reform to determine what is best for the government without being constrained by existing structures. We wanted to see if a more comprehensive approach would yield greater benefits to the federal government while preserving the public purposes and private operating structure of all the GSEs.

The seven options we considered range from strengthening the current GSE regulators to consolidating GSE regulation in a new, independent federal regulator. These seven options follow.

- Strengthen existing GSE regulators so they all have the authorities and meet the principles described in chapter 2. With respect to Sallie Mae, Treasury's authorities could be expanded or oversight responsibility could be assigned to the Department of Education.
- Assign oversight responsibility for Fannie Mae, Freddie Mac, and Sallie Mae to a federal bank regulator.
- Create a new federal regulator to oversee Fannie Mae, Freddie Mac, and Sallie Mae.
- Regulate GSEs by the market they serve (agriculture, housing, and education). That is, FCA would retain regulatory authority for FCS banks and Farmer Mac; FHFB or HUD would oversee FHLBS, Fannie Mae, and Freddie Mac; and a new regulator would be needed for Sallie Mae.
- Create a single regulator for all GSEs that do not lend to final borrowers. FCA would remain the regulator of FCS banks, the only primary market GSE. Farmer Mac, a secondary market GSE, would be regulated by this new regulator.
- Unify GSE oversight under the Treasury Department. This option is the Treasury Department's May 1990 proposal for centralized oversight that includes the use of private rating agencies to help assess the risks GSEs pose to the government.
- Create a single independent regulator for all GSEs.

Criteria for Judging Regulatory Options

We identified five criteria that a federal regulatory structure for GSEs would need to meet to carry out its oversight responsibilities effectively. We based these criteria on our own background and experience in reviewing federal financial regulation; our review of related literature and regulatory laws; the GSEs' operating methods and how they are currently regulated; and discussions with the GSEs, their regulators, and other experts in the area. We circulated a draft of these criteria among the GSEs, their regulators, the Treasury Department, the Congressional Budget Office, and several congressional committees. We solicited their comments and modified the criteria where we judged appropriate.

The five criteria follow.

- The regulator should be at arm's length from the regulated entity and from advocacy responsibilities that require or suggest that it promote

the GSE or the economic sector that the GSE serves. This distance will ensure the regulator's independence and objectivity.

- The regulator should have sufficient prominence so that Congress and the administration will take seriously questions raised by the regulator about safety and soundness.
- The regulator's organizational structure and responsibilities should allow it to be efficient and economical in its operations.
- The regulator of primary market institutions should differ from the regulator of secondary market institutions serving the same market.
- GSEs facing similar types of risks from similar operating methods should be subject to similar regulations, oversight, and capital rules. In particular, GSEs competing in the same line of business should face essentially identical regulations, oversight, and capital rules for that business.

Criterion 1: Independence and Objectivity

The first criterion says the regulatory structure should require an arm's-length evaluation of safety and soundness. Our experience in auditing bank and thrift regulators convinces us that the regulator's function should not be to promote a GSE over other market participants nor should it include promotion of the economic sector served by the GSE. Under this criterion, the regulator would have to ensure that a GSE complies with its responsibilities under its charter, but would not be allowed to coerce the GSE into activities that go beyond the charter requirements.

We also believe a regulator that oversees a single regulated entity may have difficulty remaining at arm's length from that entity. This difficulty may stem from the fact that the future of the regulator may depend on the continued existence of the regulated entity. We believe the problems with FCA's oversight of FCS before 1985 and with the now defunct FHLBB's oversight of thrifts demonstrate what can happen when this criterion is violated. Both FCA and FHLBB promoted the systems they oversaw, making them less objective in controlling the risk-taking that took place.

Criterion 2: Prominence

The second criterion stipulates that a GSE regulator must receive appropriate attention and support from top government officials. Inadequate prominence in government may make it difficult for a GSE regulator to raise safety and soundness concerns to Congress and the administration in a timely manner. Mere knowledge of a deteriorating situation would be insufficient if a regulator was unable to persuade Congress and the

administration to take timely corrective action. If a GSE had more political clout and prominence than its regulator, we suspect that the GSE could effectively block corrective actions from being taken.

Criterion 3: Economy and Efficiency

The third criterion attempts to minimize the overall and fixed costs of creating and maintaining several regulators, each with a permanent staff adequately equipped to discharge its responsibilities. A federal regulator would require administrative staff, a personnel office, attorneys, economists, an inspector general, and others. For example, FHFB was created in 1989 to oversee the 12 FHLBs. While not yet fully staffed, FHFB had 86 full-time equivalent staff positions as of December 31, 1990. Only 4 of these 86 positions were bank examiners. FHFB anticipates full staffing of 108.5 full-time equivalent positions by the end of 1991, of which 8 will be examiners. This staff composition suggests to us that establishing a federal financial regulator requires significant overhead. Typically, regulated financial institutions pay some or all of the costs of that regulation. In fairness to them and to achieve overall economic efficiencies, duplicative functions should be avoided when possible in establishing the GSE regulatory structure.

Criterion 4: Separate Regulation of Primary and Secondary Markets

The fourth criterion says that a GSE regulator should not regulate the GSE's main business partners or competitors. That is, if a GSE does business with another group of regulated financial institutions, the same regulator should not be responsible for both the GSE and those institutions. This criterion is based partially upon the notion that a regulator responsible for both the primary and secondary markets may end up attempting to regulate the market itself, rather than the market participants. For example, instead of focusing individually on the risks undertaken in the mortgage finance operations of (1) Fannie Mae and Freddie Mac and (2) banks and thrifts, a regulator could find it easier to limit overall risk-taking in the housing finance market by controlling interest rates or prices for mortgage-backed securities.

On the other hand, this criterion could stifle innovation by discouraging competition among the regulated parties. It could also result in one side or the other being favored, or create other inefficiencies. For example, until FIRREA was enacted in 1989, FHLBB was the board of directors of Freddie Mac and regulated the thrift industry with which Freddie Mac did business. In 1988, FHLBB required Freddie Mac to loan a troubled California thrift about $5 billion through risky repurchase agreements. The

thrift was too large for FHLBB to close with its limited resources so it used Freddie Mac's resources to supply the thrift with operating funds.

Criterion 5: Consistency

The last criterion establishes the need for consistent regulatory treatment of GSE risks. When two or more GSEs undertake the same financial risk in their operations, these risks should—to be fair and neutral—be treated identically from a regulatory standpoint. For example, Fannie Mae and Freddie Mac should be subject to identical regulation since they compete in the same line of business.

A Single Independent GSE Regulator Best Meets the Criteria

We did not find any regulatory option that fully satisfied all of these criteria. Where options satisfy most, but not all, of the criteria, we used judgment to weigh the relative importance of the criteria. In our view, putting all GSE oversight authority under one regulator is the best structure for protecting the government's interest.

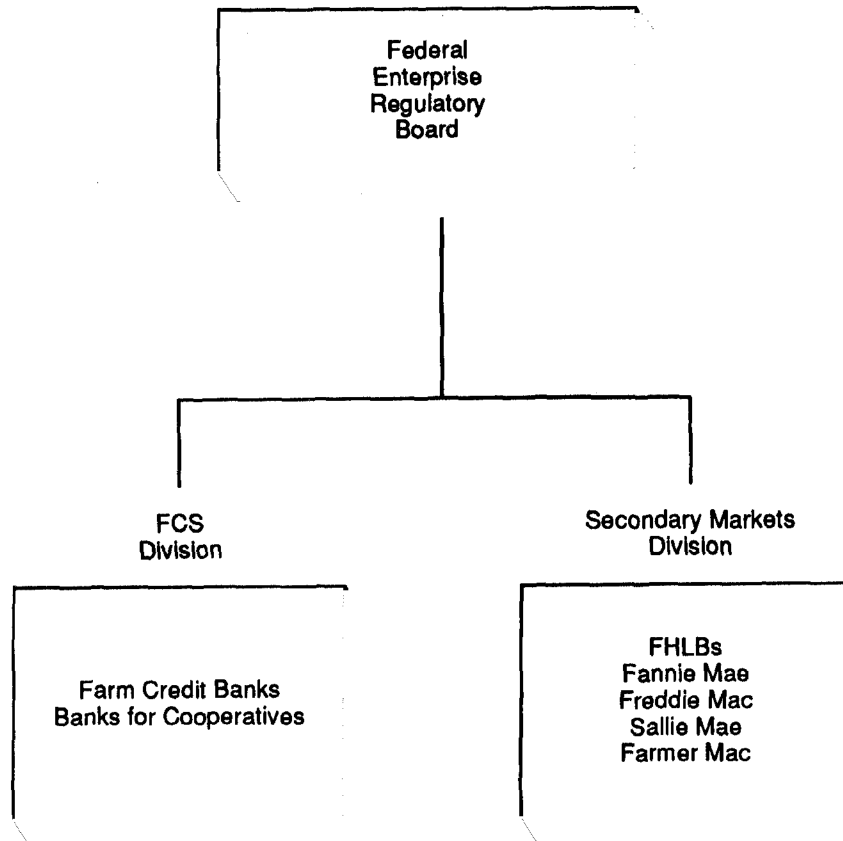
Relative to other options, a single independent regulator best meets criterion 1, ensuring that regulation is carried out at arm's length, and criterion 2, prominence in government. The regulator would not be exclusively tied to the fortunes of any one GSE; moreover, an independent regulator would be headed by prominent government leaders and would be free from the interests of any one industry or cabinet-level department. Its responsibilities—oversight of over $1 trillion in GSE debts and guarantees—should give it sufficient prominence in government. Because of its ability to assess the GSEs for regulatory cost and its independence from the priorities of other federal agencies, an independent regulator should be able to attract and retain a sufficient number of qualified staff.

A single independent regulator also meets criterion 3, operational efficiencies, better than any other option except perhaps having Treasury serve as sole regulator. One regulator should be able to minimize overhead costs such as costs for attorneys, personnel departments, and facilities. Finally, it would be in the best position to guarantee that GSEs facing similar risks, and especially GSEs competing directly, would face essentially the same regulation and oversight. Because the new regulator would oversee FCS and Farmer Mac, this arrangement somewhat violates criterion 4 concerning separation of primary and secondary market regulation. Current regulation also violates this criterion, because FCA regulates both FCS banks and Farmer Mac. We feel this problem may be mitigated by separating regulation into two or more

divisions within the regulator, with FCS regulation and Farmer Mac regulation being located in different divisions. We believe this option best insulates the FCS regulator from special interests while also increasing the prominence of FCS safety and soundness oversight.

We also believe a single regulator is in the best position from an informational perspective. Not only does it provide the administration and Congress with one source for information on all GSE activities, it also provides the public with a single voice on GSEs. This unity is especially important for debt market participants. As we pointed out in our August 1990 report, debt markets tend to view GSE notes and bonds somewhat homogeneously as federal agency debt. Having a single regulator means the market will only have to monitor and react to one regulator for all GSE obligations. This situation should make the market's reactions to certain events more predictable for the regulator and GSE management. It should also help to reduce the interest volatility for GSE debt obligations by making the regulator's reaction to events more predictable for the markets. Added stability should also make it easier for the GSEs to address their public purposes. Figure 3.1 depicts our proposed regulatory structure.

Figure 3.1: GAO's Preferred GSE Regulatory Structure



A High-Level Mixed-Membership Board Should Have the Independence and Prominence Needed to Effectively Regulate GSEs

Having determined that a new independent GSE regulator is needed, we tried to design a management structure for the regulator that furthered our criteria of independence, objectivity, and prominence in government. We designed a management structure that would have the status, respect, and financial expertise to supervise the safety and soundness of the GSEs. In our view, a high-level, three-member board of directors with a full-time chairperson who acts as the chief executive officer of the regulatory staff would be the most efficient and effective federal regulatory structure for overseeing the GSEs.

A membership mix for the regulatory board comprised of a full-time chairperson, the Secretary of the Treasury, and the Chairman of the Federal Reserve Board seems appropriate to meet our prominence in government criterion, and to have sufficient knowledge and interest in

financial services and the GSEs' safety and soundness and public purposes.

- The chairperson of the Board would be a presidential appointee, selected to serve a fixed-length term of sufficient duration to span presidential terms. This term length should foster independence. Because of the broad scope of the regulator's responsibilities, we envision this position as a full-time job. Clearly, given the composition of the Board, the chairperson must be an individual familiar with government, with a respected record of achievement.
- The Secretary of the Treasury would represent the administration's views on regulatory issues concerning financial markets. The Secretary's membership would also provide a mechanism to raise issues to the Domestic Policy Council should severe problems arise.
- The Federal Reserve Chairman would provide independent expertise in and perspective on the workings of financial markets.

We also wanted the regulator to have a mechanism to air the views and perspectives of federal officials with expertise in agriculture, education, and housing programs. Thus, we envision the Board having three nonvoting members—the Secretaries of Agriculture, Education, and HUD. These cabinet-level members would provide expertise on federal agriculture, education, and housing policies and programs. Their nonvoting status should protect the arm's-length nature of the Board by minimizing the possibility that these members use the GSEs to address public concerns not envisioned by GSE charters.

As we envision the structure, all regulatory powers described in chapter 2 would be vested in the Board. The Board chairperson would oversee the day-to-day operations of the regulatory staff. The staff would develop policy issues and regulations for the Board's approval and oversee GSEs' implementation of those policies and regulations. The staff would also develop and carry out strategic plans for examination and audits. It would review and analyze information reported by the GSEs. Except in cases of financial stress or identified management or operational weaknesses, we expect the staff's oversight of the GSEs to be nonintrusive. This policy means that the regulatory staff should carefully monitor each GSE's condition and changes in its operations and business environment, but should not involve themselves in the operations of the GSEs. Since there are so few GSEs, open and active communication between the regulatory staff and staff at the GSEs should be possible without the regulatory staff interfering with the normal business operations of the GSEs.

We believe the Board needs the discretion to respond to the changing regulatory environment in setting the precise management structure and authorities of the regulatory staff. However, to address our criterion that regulation of primary and secondary market participants be separate, we believe the Board needs at least two divisions—one for FCS banks and one for all other GSEs.

One implication of our proposal is that its implementation requires the dissolution of two existing GSE regulatory boards—the Farm Credit Administration Board and the Federal Housing Finance Board. While our proposed Federal Enterprise Regulatory Board would replace these two boards, the new regulator would need staff to perform the same functions as FCA and FHFB currently do. It is possible then, that Congress could transfer current FCA and FHFB staff to the new Board. As discussed in chapter 2, the Board should have authority to assess each GSE for regulatory expenses relevant to that GSE. This authority should allow the Board to maintain a skilled staff.

Other Options Fail to Meet the Criteria as Well as Our Preferred Option

The other options fail to satisfy all of our criteria. Moreover, their shortcomings highlight some of the advantages of the option we prefer. The most common shortcomings of the other options are possible conflicts of interest within the regulator and the duplicative costs of having multiple regulators.

Option 1: Strengthen the Existing Regulators

Strengthening each existing regulator along the lines identified in chapter 2 fails the first, third, and fifth criteria. For example, HUD does not satisfy the arm's-length criterion since it promotes the housing market and administers federal housing programs. Some GSE officials noted that Treasury, given its program responsibilities for market finance, would also fail to satisfy the arm's-length criterion. Also, HUD has not vigorously exercised its oversight responsibilities for Fannie Mae nor has Treasury exercised its authority to audit Sallie Mae. Although both departments have increased their oversight activities recently, they are likely to continue to have many pressing policy concerns apart from GSEs that may detract from consistent oversight.

This option also fails to meet the third criterion for efficient organizational structure. Having four separate regulators suggests the possibility that unnecessary overhead would be created.

Finally, having separate regulators for GSEs associated with housing could either inadvertently or intentionally provide one institution or another with an unearned competitive advantage, which violates criterion 5. For example, it is possible that the FHLBs could, over time, compete more directly with Fannie Mae and Freddie Mac than they do today. FIRREA recently gave Fannie Mae and Freddie Mac the authority to make secured loans to thrifts and banks that would be similar to FHLB advances. Similarly, some competition could arise between Farmer Mac and Fannie Mae and Freddie Mac in guaranteeing securities for rural housing loans.

Option 2: Have the Bank Regulators Oversee GSEs

Granting GSE oversight responsibility to one of the bank regulatory agencies fails the fourth criterion. That criterion says a GSE regulator should not also regulate the GSE's primary business partners. In this option, a bank regulator would regulate both a GSE, say Fannie Mae, and at least some of the banks with which Fannie Mae does business. This could lead to several conflicts, especially if a GSE or large bank was having difficulty. For example, if a large bank was in danger of failing, the regulator might be tempted to pressure a healthy GSE into making risky loans to the bank or increasing the price it pays the bank for mortgages.

A related violation of the fourth criterion concerns bank regulators' responsibilities for explicit federal guarantees. Bank regulators are associated with fulfilling the government's full faith and credit obligations to insured depositors. Making a bank regulator responsible for some of the GSEs might give the impression that GSE creditors were similarly protected.

Finally, monitoring the health of the banking industry is sufficient responsibility for the bank regulatory agencies today. Until stability is restored to that industry, it does not make sense to stretch the limited resources of bank regulators to oversee other entities for which some of the regulatory issues and responsibilities are quite different.

Option 3: Establish a New Regulator Only for Fannie Mae, Freddie Mac, and Sallie Mae

As noted earlier, FHLBs, Fannie Mae, and Freddie Mac face similar risks because most of their assets are supported by home mortgages. Therefore, dividing their regulation between FHFB and another regulator could violate criterion 5, that regulations and capital rules be consistent for GSEs serving the same market. A single regulator assigned to Fannie Mae, Freddie Mac, and Sallie Mae would have significant responsibilities and most probably prominence in government. However, this option

assumes FHFB would continue as it is now and FHFB as currently constituted fails two of our criteria.

With its current responsibilities, FHFB fails to meet the second criterion, prominence in government. From its creation in August 1989 until December 1990, the Secretary of HUD had full powers of the Board because the other four Board members had not been confirmed. The President's nominations were not forthcoming for more than 8 months and, since then, have not been considered by the Senate because of a dispute over whether these positions should be full or part time. In December 1990, the President made recess appointments to the Board that did not have to be confirmed. We interpret the slow action by the administration to make the nominations, combined with the current dispute over the full-time versus part-time status of the board positions, to indicate a lack of priority within the government concerning FHFB's responsibilities.

Additionally, should this option be selected, we would be concerned with the extent of FHFB's current authorities. These authorities, if unchanged, would permit FHFB to involve itself in the business affairs of the GSEs it regulated. As we described in chapter 2, such interference in corporate governance would make FHFB less than an arm's-length regulator. Regulatory involvement in corporate decision-making could disrupt the normal business operations of the GSEs and would be an unwarranted federal intrusion in the operations of a private company.

As noted for option 2, we also are concerned about the efficiency and regulatory costs involved in having several separate GSE regulators.

Option 4: Regulate GSEs by the Market They Serve

Should the FHFB be assigned responsibility for Fannie Mae and Freddie Mac, as indicated under this option, we believe the expanded FHFB would come closer to satisfying our criteria than it does now. FHFB's prominence would be improved and the number of GSE regulators consolidated to permit greater operational efficiencies. The weaknesses of this option are the lack of satisfactory oversight of Sallie Mae, continued regulatory involvement by FHFB in GSEs' business affairs, and concerns about FCA discussed under the next option.

Regardless of where oversight of Sallie Mae was housed, either in a new Sallie Mae regulator, or in Education or Treasury, several of the criteria would be violated. A new, independent regulator solely responsible for Sallie Mae would surely not be prominent in government (criterion 2)

nor have sufficient economies (criterion 3). Placing oversight responsibility for Sallie Mae in Education would neither be arm's length from conflicting considerations (criterion 1) nor would it constitute an economical use of resources (criterion 3) because many of its functions would be duplicated in other existing regulators. Such responsibility might also fail to have sufficient prominence within Treasury (criterion 2), given all of Treasury's other, unrelated responsibilities. Evidence of this latter point is Treasury's past failure to pursue its existing audit authority over Sallie Mae.

Option 5: Create a Secondary Market Regulator

Placing all secondary market lenders under one new regulator satisfies all five criteria. The regulator could be given all the powers and authorities described in chapter 2.

Because Farmer Mac is a secondary market guarantor, it should be assigned to the new regulator if this option were adopted. Leaving Farmer Mac under FCA would violate criterion 4 concerning separation of primary and secondary market lenders. Further, while some agriculture and rural real estate have characteristics different from suburban or urban real estate markets, regulating all secondary market participants in the same way should ensure that similar risks are regulated in a similar manner (criterion 5).

This option differs from our preferred option in that, under our preferred option, FCA would move into the new regulator as a distinct division or department. We prefer consolidating FCA into a single regulator to further enhance its regulatory independence and prominence.

In an attempt to make FCA an arm's-length regulator, the 1985 amendments to the Farm Credit Act separated FCA from FCS. The FCA three-person Board of Directors is appointed by the President and each member serves a fixed term. Currently both members and the nominee for the FCA Board were formerly associated with FCS. Participants from FCS are logical choices to serve on the FCA Board since they have experience in agricultural finance and understand the system. Yet these same benefits could result in conflicts if such individuals become advocates for FCS over other market participants.

A situation related to this arm's-length concern is that FCA oversees just FCS. FCA's dependence on FCS for its existence and the homogeneous nature of FCS make the chances for a gradual weakening of FCA's arm's-

length posture from FCS relatively more likely than an arrangement where a regulator oversees more diverse, unrelated entities.

We also are concerned prospectively with FCA's prominence in government (criterion 2). For the last 30 months (since Nov. 11, 1988) there has been at least one vacant seat on the FCA Board. The chair's position was vacant for 11 months from November 1988 to October 1989. For 10 months during the period, there was no quorum because there was only one member on the Board. As with the earlier example of FHFB, this lack of a quorum may indicate that FCA does not have sufficient prominence in government, despite FCA's recent financial difficulties and the taxpayer costs associated with these difficulties.

Option 6: Treasury's Proposal for Centralized Oversight

The Treasury Department's May 1990 proposal called for centralized safety and soundness oversight of GSEs. Treasury identified itself as a logical home for such authority and also identified the Federal Deposit Insurance Corporation and Federal Reserve as alternative choices. The unique feature of the Treasury proposal is the assignment of GSE risk and capital adequacy assessment to private rating agencies. Treasury proposed that each GSE be required to obtain periodic ratings from two nationally recognized credit rating agencies. Treasury further proposed that each GSE earn the highest rating, triple-A, from each rating agency or be subject to a number of corrective actions. These actions include Treasury approval of a business plan for the GSE. The Treasury proposal would continue HUD's oversight of Fannie Mae's and Freddie Mac's compliance with their public policy purposes.

Locating the GSE regulator within Treasury does not completely satisfy the first criterion; arm's-length association with the regulated entities may sometimes be difficult to achieve within Treasury. Treasury must approve all GSEs' debt issuances. Since GSE debt is part of the U.S. agency debt market, these issuances compete in some way with Treasury's own debt securities. We asked Treasury and Federal Reserve economists, as well as economists at several GSEs, what impact GSE debt issuances had on the market for Treasury debt. All responded by saying it was almost impossible to isolate and measure any effect but, in theory, such an effect was likely to exist at least some of the time. Since Treasury could be seen as competing with the GSEs, it is not fully at arm's length from the operations of the GSEs.

The second criterion, prominence in government, could be harder to achieve within Treasury than by an independent regulator, as we propose. This difficulty stems from the fact that Treasury has many wide-ranging responsibilities that could overshadow regulation of GSEs. To maintain its prominence, such a regulatory office would probably have to be set up as a somewhat independent branch of Treasury, along the lines of the Office of the Comptroller of the Currency.

This option also does not provide the regulator with all the authorities described in chapter 2. It grants rating agencies the authority for evaluating the government's risk and for setting capital requirements. We are concerned that this option assigns important government responsibilities to private firms.

Were this option modified so that Treasury itself evaluated GSE risk, set GSE capital requirements, and monitored compliance with charter requirements, it would become a specific way of implementing our preferred option. However, regulating GSEs from within Treasury would still fail to satisfy the first and second criteria fully.

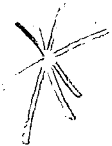
This option also leaves oversight of Fannie Mae's and Freddie Mac's compliance with their public purposes in agencies with responsibilities to promote the housing industry. Our proposed board structure brings together the points of view within government necessary to consider and resolve issues relating to both safety and soundness and statutorily required purposes.

Conclusions

We believe that all seven GSEs should be regulated by a single independent regulatory body overseen by a Board of Directors. This regulatory body would have the independence, prominence in government, and organizational capacity to protect the government's interest in accomplishing the GSEs' public purposes, while minimizing any risk to the taxpayer.

We envision that the regulator will use its authorities to supplement the system of private corporate governance already in place at the enterprises. We expect that the regulatory activity will normally be largely one of monitoring the performance of the enterprises to ensure that the corporate governance is working effectively and that the regulations are being followed. Prompt actions by the regulator would be warranted when corporate governance processes are not working as intended or when the enterprise is experiencing financial or managerial difficulties.

Recommendations to Congress



To correct the inadequacies in the federal government's oversight of GSES, to promote safety and soundness, and to ensure fulfillment of statutory purposes, we recommend that Congress take the following actions:

- Establish a Federal Enterprise Regulatory Board composed of three voting members and three nonvoting members. The voting members should include a full-time chairperson appointed by the President and confirmed by the Senate, the Secretary of the Treasury, and the Chairman of the Board of Governors of the Federal Reserve System. The nonvoting members should be the secretaries of Agriculture, Education, and HUD.
- Designate the chairperson as chief executive officer to administer the day-to-day operations of the regulator.
- Provide the GSE regulator with the authority and responsibility to (1) establish rules governing GSES, (2) monitor GSES' activities and condition, (3) set capital requirements for GSES based on the risks they undertake, (4) levy assessments on GSES to cover the costs of regulation, and (5) enforce all applicable statutes and regulations. Enforcement authorities should track those available to bank and thrift regulators and their use should be tied to certain prespecified conditions.

GSE Capital Requirements Should Be Based on Risks Undertaken

The government's interest in GSE risk-taking and capital differs somewhat from the interest of GSE managers and owners. Both parties want to avoid loss. However, the government's particular interest is in achieving specific public policy purposes while GSE owners and managers are particularly concerned with maximizing shareholder value. Requiring that capital holdings increase commensurate with GSE risk-taking helps ensure that owners and managers take risks with their own money rather than with money borrowed at relatively low cost because of the GSEs' well established relationship with the federal government.

Each GSE's charter, except Sallie Mae's and Farmer Mac's, requires the GSEs to hold some level of capital. These existing requirements, however, do not consider all the risks GSEs undertake and therefore do not necessarily ensure an adequate capital buffer in the event problems develop that could expose the government to losses. Minimum required capital levels should be based on risks undertaken. This requirement would provide managers with added incentives to manage those risks properly. Currently available capital and risk measurement methodologies make feasible the development of a capital rule with separate components to cover each type of risk undertaken by GSEs. Such a rule should provide an adequate buffer for possible GSE losses, be clear and prospective to everyone involved, and be fair for competing GSEs and their fully private competitors.

Principles of Regulation Guide Consideration of Options for Regulatory Capital

We used the five principles presented in chapter 2 to guide us in considering the methods available for establishing minimum required capital for GSEs. These principles define the role capital plays in helping to protect the government's interests in GSEs as well as the need to minimize government interference in GSEs' business operations. Briefly, the GSE capital standard should follow these principles:

- A minimum capital requirement should be based on all risks undertaken, both measurable and nonmeasurable.[1]
- All capital considered in meeting the standard should be available to protect the government's interest, that is, serve as a buffer for possible GSE losses.
- The capital requirement should be clear and prospective.

[1]Nonmeasurable risks include management, operations, and business risks. They are nonmeasurable in the sense that data on past performance cannot be readily used to estimate future results.

- The capital requirement should be equitable across GSEs serving the same market.
- The capital requirement for FCS institutions should be equitable with those of the commercial banks with which they compete.

Options for Setting Minimum Required Capital

Through discussions with the GSEs, their regulators, credit rating agencies, Wall Street analysts, and others, we identified the following four possible methods for setting minimum capital levels for GSEs:

- bank-like, risk-based capital rules;
- a financial leverage ratio;
- stress tests; and
- Treasury's rating agency proposal.

These approaches to setting a capital standard are not mutually exclusive; some combination might be used. In fact, using some mix of these approaches could be better than using just one approach if the mix makes up for imperfections in any one measure without unduly requiring capital twice for the same risk.

Bank Risk-Based Capital

Under bank risk-based capital requirements, a bank's capital must be at least the higher of (1) a percentage of the bank's on- and off-balance sheet assets weighted or adjusted by the concentration of these assets in various categories of credit risk, or (2) a percentage of the bank's total on-balance sheet assets.

The first part of this rule is the risk-based formula.[2] It provides a bank's owners and managers with incentives to control the risks they take—the higher the credit risk of their assets, the higher the capital they have to hold. A bank holding only the highest credit risk category assets (such as commercial loans) would be required to hold capital equal to 8 percent of those loans. Banks holding lower risk assets, such as home mortgages, federally insured loans, or Treasury securities, are required to hold at least 4, 1.6, and 0 percent capital against those assets, respectively.

The second part of the rule prescribes an absolute capital floor, regardless of the amount of credit risk a bank chooses to take. This additional

[2]For a more detailed discussion of bank risk-based capital rules, see Deposit Insurance: A Strategy for Reform (GAO/GGD-91-26, Mar. 4, 1991), p. 86.

requirement ensures that a bank has some minimum level of capital for interest rate risk, management risk, and other risks.

Financial Leverage Ratio

A capital rule could be based solely on a leverage ratio that requires capital to be at least some fixed proportion of assets or liabilities. A leverage ratio provides a simple formula for required capital. It assumes that capital required to protect against overall risk is proportional to the size of a firm or its obligations. The second part of the bank risk-based capital rules described above is an example of a leverage ratio. Fannie Mae's and Freddie Mac's current regulatory capital requirement is stated as a leverage ratio—the debt-to-capital ratio must be no higher than 20-to-1.

Stress Tests

Stress tests use computer simulation models to project how much capital a GSE needs, given its current portfolio, to withstand losses generated in certain adverse economic environments. The simulations are called stress tests because the environments selected for testing are believed to be financially stressful and likely to generate large losses. In implementing a stress test, assumptions are made about what would constitute a worst case scenario (for example, conditions like those in the Great Depression). These assumptions may be based on historical experience or judgments about possible future conditions. In this way, stress tests show the ability of a GSE's capital to withstand losses arising from the prescribed set of economic conditions. For example, a stress test can be designed that shows whether a GSE's capital is sufficient to withstand possible losses from interest rate risk. Such a test may simulate losses during a high and/or volatile interest rate environment.

A computer simulation designed around these assumptions estimates losses from the GSE's existing portfolio over time. As losses accrue, capital is depleted. Depending on the approach used, stress tests may be used to assess a GSE's capital adequacy in one of two ways. Under one approach, a GSE's capital would adequately cover the risk exposure to, say, credit risk, if capital remained positive through the entire simulation. Under the other approach, a GSE's capital adequacy is measured based on how long capital remains positive during the simulation. The longer capital remains positive under the stressful conditions, the greater is the GSE's capacity to withstand unfavorable conditions.

Treasury's Rating Agency Proposal

In May 1990, the Treasury Department proposed using private rating agencies to measure and monitor GSEs' risks and capital adequacy by requiring the GSEs to obtain a triple-A debt rating—the highest possible rating. In determining the rating level, the rating agencies were to ignore

the GSEs' ties to the government. Treasury determined that, because GSEs are diverse and complex entities, no single capital standard should apply to all of them. The Treasury report noted that the private sector relies on private credit rating agencies to measure and monitor risks in commercial firms. Treasury concluded that, since rating agencies consider all factors affecting creditworthiness rather than looking solely at capital adequacy, relying on rating agencies would be superior to a single capital adequacy standard.[3]

Mix of Stress Tests and a Leverage Ratio Would Cover All Risks

To meet our first principle that the capital standard cover all risks undertaken by the GSEs, minimum required capital needs to cover the two measurable risks—interest rate risk and credit risk—and the nonmeasurable risks—management, operations, and business risks. In our view, this principle can best be achieved by using stress tests to set capital requirements for interest rate risk and credit risk and using a leverage ratio to cover all other risks.

Under this approach, the GSE regulator can separately analyze all risks and ensure that each is covered by an adequate capital cushion. Stress tests alone are inadequate to fully protect the government's interests in GSEs because they do not account for critical nonmeasurable risks. The leverage ratio alone is inadequate because it does not account for measurable risks or the diverse and complex operating strategies of the GSEs. Because measurable and nonmeasurable risks can both contribute to large losses simultaneously, to cover all risks adequately, the total minimum required capital level for a GSE would be the sum of the amount needed to pass each stress test and the amount determined by the leverage ratio.

Stress Tests Appropriate to Set Capital for Measurable Risks

Stress tests are empirically based tests that can project capital levels required for measurable risks—credit risk and interest rate risk. They are especially applicable for firms in a single line of business like the GSEs, because economic environments adverse to such firms are more easily identified than is the case for firms in multiple lines of business. Stress tests use the latest analytical approaches in finance theory and can be tailored to each GSE's specific circumstances.

Requiring capital sufficient to survive a stress test would give the regulator an objective measure of whether a GSE's capital would protect it

[3]Report of the Secretary of the Treasury on Government Sponsored Enterprises (May 1990), p. 9.

against failure arising from credit and interest rate losses. That is, the regulator would know what degree of economic stress a GSE's portfolio should be able to withstand.

Using only one stress test would be insufficient to assess the capital needed for both credit and interest rate risks. A high interest rate environment, usually associated with rapid inflation, that could be used to stress interest rate risk could be relatively benign with respect to credit risk because of inflation in real estate values. Similarly, a deflationary environment that could be used for a credit risk stress test may be less harmful in terms of interest rate risk. However, should these environments occur sequentially, large losses from both credit and interest rate risks could result. For Fannie Mae and Freddie Mac, these potentially stressful environments did occur sequentially in the late 1970s and early to mid-1980s, especially in the Southwest. Therefore, we envision the regulator creating separate stress tests for credit risk and interest rate risk and using the capital required by both stress tests to contribute to the overall capital requirement.

Several GSEs already use stress tests to measure their capital's ability to absorb losses under various economic conditions. For example, Fannie Mae and Freddie Mac both run stress tests simulating losses under an economic environment similar to a severe nationwide depression. These GSEs advocate using stress tests as an appropriate methodology for setting required capital. Additionally, both the Office of Management and Budget (OMB) and the Treasury Department have used stress tests in evaluating capital adequacy at the GSEs. HUD uses stress tests to assess capital adequacy at Fannie Mae and Freddie Mac. Credit rating agencies also use stress tests to measure both GSEs' and other private firms' ability to withstand stressful economic conditions.

The stress tests models and assumptions used by Fannie Mae and Freddie Mac have withstood outside scrutiny. James Wolfensohn Consultants, OMB, and Treasury have reviewed Fannie Mae's stress tests. Price Waterhouse, OMB, Treasury, and academic consultants have reviewed Freddie Mac's stress tests. Stress test usage by GSEs, rating agencies, and regulators is testimony to its acceptance. There is also a logical appeal to stress tests. They measure capital in an objective manner, using techniques that differentiate risks in a portfolio while giving credit for risk diversification in the portfolio. In appendix III we describe in more detail what stress tests are and how they work. We describe how credit rating agencies and GSEs use stress tests to evaluate credit and interest rate risks and capital adequacy.

Stress tests are not without limitations and they do not consider nonmeasurable risks. Careful design can minimize some of the stress test limitations. For example, the possibility of obtaining unreliable test results can be minimized by varying the default rate and loss rate assumptions used in the test. Various stressful environments can also be tested to minimize the likelihood that the test will be skewed by reliance on a single historical episode. However, these limitations cannot be completely eliminated. Exclusive reliance on stress tests provides an incomplete picture of the capital necessary to protect the government's interests.

A Leverage Ratio Would Set Capital to Cover Risks Not Included in Stress Tests

Our August 1990 report described nonmeasurable risks in detail and the steps taken by the GSEs to control these risks. For example, managers can expose their firms to losses through incompetence, inadequate planning, poor internal controls, risky business strategies, fraud and negligence, and other forms of mismanagement.

Operations risk is a component of management risk since management establishes and monitors the internal operations of the firm. Operations risk is the risk that losses may arise from breakdowns or other weaknesses in a firm's policies and procedures or in its accounting and management information systems. Such policies, procedures, and systems are integral elements in the daily functions of a financial firm. A failure in these areas can go undetected until some other event—such as a stressful economic environment described with the stress tests—exposes the problem. At that point, the operational breakdown may exacerbate the losses generated by the stressful environment. Such breakdowns may make the assumptions used in the stress tests unreliable.

Business risks include uncertainties concerning legislative or regulatory changes that affect the financial markets in which GSEs operate. Such risks can change profitable strategies into unprofitable ones. These unexpected changes can also render erroneous the assumptions on which stress tests are based.

Largely because losses from management, operations, and business risks are unpredictable, none of the methods currently used to set capital standards for GSEs expressly cover these risks. Yet, management decisions that are impossible to predict may precipitate or exacerbate stressful environments or the losses arising in such environments.

For example, management deficiencies have also been cited as a leading cause of failure among commercial banks and thrifts.[4] Management decisions also exacerbated losses during the FCS crisis.[5] In the 1970s, FCS banks aggressively sought to increase loan volume by using average cost of funding to price their variable-rate loans at interest rates well below competitors' rates. The FCS banks funded their growing loan volume in part by issuing fixed-rate noncallable term debt carrying longer maturities than their loans. When interest rates dropped in the mid-1980s, high average debt costs prevented the FCS banks from lending at competitive rates to their better quality customers.

In the absence of specific measurements, leverage ratios provide a simple method of setting a regulatory capital level for risks that are not included in either stress tests or other risk-based techniques, but that require additional capital as business volume grows. Therefore, we propose that a leverage ratio be used in addition to the stress tests.

It may be reasonable to set different leverage ratios for a GSE's on-balance sheet assets and its off-balance sheet guarantees. The GSE regulator could determine that the management risks for these varied business activities are sufficiently different to set separate leverage ratios. For example, the regulator would need to compare the management and operations risks of running an off-balance sheet guarantee program, such as issuing mortgage-backed securities, with the management and operations risk of managing a mortgage portfolio and its attendant interest rate risk. In other words, if one line of business is considerably more complicated than another, the potential for poor management decisions may be higher for the more complicated line of business.

Sum of Capital for Measurable and Nonmeasurable Risks Should Provide Adequate Protection

We believe that GSEs' minimum required capital should be the sum of (1) capital required to withstand a variety of economic conditions that would result in large credit losses; (2) capital required to withstand a variety of stressful interest rate environments; and (3) capital required to cover potential losses from management, operations, and business risks. Therefore, to protect the government fully against loss, the capital

[4]See Bank Failure: An Evaluation of the Factors Contributing to the Failure of National Banks, Office of the Comptroller of the Currency (June 1988). Also see Deposit Insurance: A Strategy for Reform, pp. 43-45, and Failed Banks: Accounting and Auditing Reforms Urgently Needed (GAO/AFMD-91-43, Apr. 23, 1991).

[5]See Farm Credit: Actions Needed on Major Management Issues (GAO/GGD-87-51, Apr. 1987), pp. 2-5.

required by the stress tests and leverage ratio should be added to determine each GSE's total required capital. A capital requirement based solely on stress tests or on a leverage ratio would ignore the shortcomings of each as well as the relationship between the measurable and nonmeasurable risks.

Neither Stress Tests nor Leverage Ratios Alone Protect Against All Risks

Stress tests provide a risk-sensitive approach to setting capital requirements but they do not fully protect the government from all sources of risk. Leverage ratios provide a means of requiring capital for nonmeasurable risks, but they are not an adequate means of setting capital for credit and interest rate risk.

The government needs GSEs to hold capital beyond that implied by stress tests because the following limitations suggest stress tests may understate the amount of capital necessary to protect the government's interests.

- Stress tests rely on past experience, which may not be a good indicator of future performance. Future events could prove to be more stressful and result in higher losses than those encountered in the past.
- Stress tests are sensitive to the assumptions that drive the tests. Thus, small changes in assumed default rates, loss rates on defaulted assets, or loss-sharing agreements could affect the degree of capital deterioration generated by the test. For example, in its May 1990 report on GSEs, the Treasury Department reported that the results from Fannie Mae's and Freddie Mac's stress tests were quite sensitive to the loss rate assumptions used. That is, small changes in these assumptions resulted in large changes in stress test outcomes.
- Assumptions about dividend payments and third-party credit enhancement, such as private mortgage insurance, could affect stress test results. For example, Fannie Mae assumes that dividend payments continue to be made for only a brief period in its credit stress test; Freddie Mac, however, assumes no dividend payments throughout its credit stress test. The GSEs' Boards of Directors could, however, continue paying dividends throughout the stressful period. Also, because it would be difficult to determine precisely when a stressful environment was beginning, the GSEs would probably continue to pay dividends in the early quarters or years of a downturn, leaving them with less capital than assumed in the stress test. Similarly, Fannie Mae assumes private mortgage insurers would pay on all their claims during the credit stress test period, while Freddie Mac assumes they pay for a certain number of

years, based on the credit rating of the insurer.[6] If, as a consequence of the stressful environment, any of these insurance firms fail earlier than projected by the stress test, losses to Fannie Mae and Freddie Mac could be considerably more than projected by the stress tests.

- It is difficult to estimate the impact of new business in a stress test. Consequently, most stress tests assume that no new business is added by the GSE during the stress test period. This assumption could understate the need for capital because new business originated under stressful conditions is likely to be more risky than existing business. For example, loans originated at the time a market is beginning to collapse are likely to have both a higher propensity to default and a higher loss rate than loans originated in stable market conditions.

Using a leverage ratio alone to set capital requirements is also unsatisfactory. Like the stress tests, leverage ratios have their own limitations.

- Leverage ratios require capital in proportion to a GSE's size or debt obligations and therefore do not consider differences in risk between two GSEs of the same size.
- A leverage ratio cannot account for measurable risks. That is, even though techniques exist to measure the extent of a GSE's credit and interest rate risks, the leverage ratio is not designed to adjust required capital as credit and interest rate risk exposure changes.
- Leverage ratios do not respond to changes in markets, financial instruments, or sources of risk. The leverage ratio initially imposed by statute on Fannie Mae and Freddie Mac has become outdated. It requires them to hold capital based on their on-balance sheet debt obligations but does not consider the billions of dollars in off-balance sheet guarantees that they began to issue after the leverage ratio was initially put in place for Fannie Mae.

Stress Tests and a Leverage Ratio Together Cover Different Aspects of Related Risks

A principal advantage of combining the capital required by stress tests with the capital required by the leverage ratio is that the two approaches set minimum capital for different aspects of related risks. Stress tests set capital for possible losses from credit and interest rate risks in severe economic environments. The leverage ratio sets capital to

[6]Fannie Mae and Freddie Mac require third-party credit enhancements on mortgages they purchase with loan-to-value ratios greater than 80 percent. One form of such credit enhancement is private mortgage insurance that the borrower pays for from a mortgage insurance company. This company guarantees to pay the mortgage holder up to 25 percent of the property's value at time of origination if the borrower defaults.

protect against the unknown things that can go wrong in stressful environments such as poor management decisions and breakdown in operations systems and controls.

In general, weaknesses in management or operations can aggravate credit and interest rate risks. A management strategy that is harmless in benign economic environments may result in severe unanticipated losses in times of economic volatility. For example, Fannie Mae's policy in the late 1970s of "locking in" a purchase price for mortgages through mandatory commitments was not harmful when interest rates were stable. However, when interest rates rose sharply in the early 1980s, Fannie Mae was forced to purchase mortgages at above-market rates because of these previously arranged commitments.

Weaknesses in operations resulting from poor internal controls, underwriting standards, and management information systems may also not be readily apparent in good times. However, as stressful conditions began to strain the GSE, such weaknesses could suddenly appear, making it more difficult for the GSE to respond to its changing environment. Freddie Mac discovered it had such weaknesses in its multifamily operations only when economic conditions in certain parts of the country stressed that part of its business.

Adding Components of Capital Is Consistent With Our Proposed "Tripwires" for Bank Regulation

Adding the stress test and leverage ratio components to set minimum required capital is unlike the bank risk-based capital rule, which sets capital for banks as the greater of risk-based capital or a leverage ratio requirement. In our opinion, the differences between stress tests and bank risk-based capital approaches make this distinction appropriate. As described earlier, banks must hold the greater of their risk-based capital requirement, which is based on credit risk, or an amount dictated by a leverage ratio. They are not required to hold the sum of these components. For the thousands of banks with diverse portfolios, the risk-based component is based on a rough assessment of credit risk. It does not differentiate precise differences in credit quality of most loans, requiring the same capital for whole classes of loans. For GSEs in single lines of business, the stress tests can differentiate among the characteristics of loans within the same overall class, such as various types of mortgages.

Patterning GSE capital rules after bank rules by making GSEs' capital requirement be the greater of (1) that required by stress tests or (2) that required by the leverage ratio would also create an environment in which capital requirements did not address all risks undertaken. For

example, if the leverage ratio required more capital than the stress tests, thereby making the leverage ratio the applicable requirement, the GSE could increase the riskiness of its portfolio without having to raise capital. That is, if the leverage ratio was the binding capital rule, a GSE could replace lower risk assets with higher risk assets but, since its size would not have changed, its capital requirement would not change. This would not be the case if the stress test and leverage ratio were additive.

The proposal for an additive capital requirement is, however, consistent with our proposed tripwire system for bank regulation.[7] Our tripwire proposal suggests the need to make an additive capital requirement for measurable and nonmeasurable risks when persistent management problems are identified by bank examiners. We proposed that banks with identified management or operations weaknesses be required to hold additional capital. In this sense, an additive requirement would exist for banks if the tripwire system were adopted. For GSEs, the ratio could be set at a base level when examinations find sound management and financial conditions. The ratio could be raised when management and operations problems are identified that increase the vulnerability of the GSE to losses.

Projections Suggest GSEs Can Meet Required Capital Levels Within 5 Years

The actual amount of capital required for each GSE under our proposal will depend on the results of the stress tests developed by the regulator and on the leverage ratio set by the regulator. To illustrate the relationship between various required ratios and GSEs' current and projected capital positions, we projected capital levels for year-end 1995 for FHLBs, Fannie Mae, Freddie Mac, and Sallie Mae. For the purpose of this illustration, we defined capital as being the sum of equity capital and loan loss reserves. In making these projections, we assumed that business volume will not grow, dividend payouts will remain constant, and capital will grow only through retained earnings. We compared the projected capital levels with various levels of capital that might be required at that time. We then projected each GSE's surplus or shortfall with respect to minimum required capital in 1995.

The minimum required capital for each GSE depends on the results of the stress tests and the level of the leverage ratio used. To approximate the stress test results, we looked at what each GSE currently uses or capital they have told us they need for credit and interest rate risks.

[7]See Deposit Insurance: A Strategy for Reform and Bank Supervision: Prompt and Forceful Regulatory Actions Needed (GAO/GGD-91-69, Apr. 15, 1991).

FHLBs recently proposed that they each meet a bank-like risk-based capital requirement of 10-percent equity capital. We used this figure and assumed that their assets would have a risk weight of 20 percent, because the loans they hold are overcollateralized and FHLBs enjoy priority over most other creditors in the event of a default. These combined assumptions result in a credit risk capital requirement of 2 percent of on-balance-sheet assets. For Fannie Mae, we assumed capital required for credit risk equal to its publicly reported credit stress test requirements. Freddie Mac reported that its capital is set to meet a credit risk stress test, so we used its current capital as an estimate of what a credit risk stress test would require. Sallie Mae officials told us that a worst case credit risk scenario for them would be the simultaneous failure of all state guarantor agencies. We estimated Sallie Mae's credit risk capital requirement assuming all state guarantors fail, thereby costing Sallie Mae 20 percent of the principal lost through normal student loan defaults.

On the basis of the results of each GSE's own stress tests and other GSE analyses of their interest rate risk, we assumed that no capital would be required for interest rate risk for any GSE given their current portfolios and approaches to managing interest rate risk. We accepted this assumption even though the portfolio lenders expose themselves to significant interest rate risk potential. GSE officials said they have used sufficient hedging and duration matching techniques to nullify their risk exposure. Using these techniques successfully, however, requires significant management attention. This circumstance indicates to us that the regulator should consider the extent to which these techniques are relied upon when setting the management risk leverage ratio.

For management and operations risk, we used five alternative leverage ratios: 50, 100, 150, 200, and 250 basis points. A basis point is one-hundredth of a percentage point.

FHLBs already meet these requirements easily, even for a leverage ratio of 250 basis points. Sallie Mae already meets the requirements for a leverage ratio of 50 basis points and nearly meets it for 100 basis points. Fannie Mae and Freddie Mac do not currently meet the requirement for any of the leverage ratios shown.

Although the projected requirements are based on year-end 1990 data, we believe that requiring the GSEs to meet the capital levels shown here would require a phase-in period. We assumed a 5-year phase-in—the requirements would have to be met by the end of 1995. We wanted to

project each GSE's capacity to meet these requirements by the end of 1995 using only retained earnings. To do so, we calculated each GSE's weighted average return on assets and their weighted average dividend payouts for the past 5 years. These projections are reported in table 4.3. We assumed the GSEs will earn the average amounts and will pay the average dividend amounts each year for the next 5 years. We assumed asset and MBS volume will remain constant and that asset mix (relative riskiness of assets) will not change. Assuming a constant business size implies that each GSE purchases or guarantees new loans over the 5 years in an amount that replaces maturing loans.

We believe these assumptions are reasonably conservative and, in fact, the GSEs may be able to increase capital through retained earnings faster than suggested here. For example, income could be greater than assumed in our analysis. Also, GSEs could temporarily alter their dividend policies to increase their retained earnings. Moreover, GSEs have several other means available to them to increase capital. They can issue new stock, reduce overhead or other costs, or they can increase prices (to the extent permitted by competitive pressures).

The results suggest that FHLBs and Sallie Mae would have no difficulty meeting these requirements. Whether Fannie Mae and Freddie Mac meet the requirements depends on the leverage ratio used. (These figures rely on rough approximations, using each GSE's performance over the past 5 years to project its performance for the next 5 years and using GSEs' self-reported exposures to credit risk and interest rate risk.)

Table 4.1 shows year-end 1990 equity capital and loan loss reserves[8] for FHLBs, Fannie Mae, Freddie Mac, and Sallie Mae in dollars; table 4.2 provides this same information as a percentage of each GSE's assets and guarantees. We do not consider FCS or Farmer Mac in this analysis. As noted earlier, we support the current approach to setting capital requirements for FCS. Since Farmer Mac has only recently begun operations, we have no basis on which to make an assessment for them.

Tables 4.1 and 4.2 also compare the projected 1995 capital for Fannie Mae, Freddie Mac, and Sallie Mae with the projected capital requirement. This comparison shows whether each GSE would have more or less capital than required if additions to capital occurred only through retained earnings and the GSEs did not grow or change the level of loan

[8]Since the GSEs include loss reserves when running their stress tests, we include loss reserves in each GSE's starting capital for this illustration.

loss reserves. If the leverage ratio is 50 basis points, we project that all three GSEs could meet the requirement simply through retained earnings.[9] Freddie Mac would fail to meet the requirement at a leverage ratio of 100 basis points, and Fannie Mae would fail to meet the requirement at a leverage ratio of 150 basis points. Our analysis suggests that Sallie Mae would meet the requirement even with a leverage ratio of 250 basis points.

Table 4.1: Projected GSE Capital and Possible Capital Requirement

Dollars in billions

	FHLBs	Fannie Mae	Freddie Mac	Sallie Mae
Current capital	$11.6	$4.5	$2.8	$1.1
Possible total required capital for leverage ratio equal to:				
50 basis points	4.1	4.9	4.5	1.0
100 basis points	5.0	7.1	6.3	1.2
150 basis points	5.8	9.2	8.1	1.4
200 basis points	6.6	11.4	9.9	1.6
250 basis points	7.5	13.6	11.7	1.9
Projected 1995 capital	[a]	8.5	4.7	2.5
Projected 1995 surplus (shortfall) for leverage ratio equal to:				
50 basis points		3.6	0.1	1.5
100 basis points		1.4	−1.7	1.2
150 basis points		−0.7	−3.4	1.0
200 basis points		−2.9	−5.2	0.8
250 basis points		−5.1	−7.0	0.6

Note 1: Table includes equity capital and loan loss reserves. Current capital is for year-end 1990. Projected capital is for year-end 1995. Required capital is based on GSE size at the end of 1990. Projected 1995 capital was estimated by holding the size, income, dividends, and loan loss reserves of each GSE at a constant level for the next 5 years. In that way, additions to capital occur only through retained earnings. See the text and tables 4.2 and 4.3 for a complete explanation.

Note 2: A basis point is one-hundredth of a percentage point (1 basis point = 0.01 percent).

[a]Projected capital is not reported for FHLBs because they already fully meet the phased-in requirement for any management risk leverage ratio alternative.

Source: GAO calculations based on information provided by the GSEs.

[9]Since several GSEs have significant off-balance-sheet activities, we used leverage ratios for each GSE on the basis of on-balance-sheet assets and off-balance-sheet MBS. It is unclear whether off-balance-sheet items held solely for hedging purposes should be included, so we excluded them. Although we do not propose that the leverage ratio applied to off-balance-sheet activities should be the same as that applied to on-balance-sheet activities, for purposes of this exercise, we assume the same ratio applies equally to both.

Table 4.2: Possible Capital Requirement as a Percentage of Year-End 1990 Assets

	FHLBs	Fannie Mae	Freddie Mac	Sallie Mae
Current capital	7.0	1.0	0.8	2.7
Possible total required capital for leverage ratio equal to:				
50 basis points	2.5	1.1	1.3	2.5
100 basis points	3.0	1.6	1.8	3.0
150 basis points	3.5	2.1	2.3	3.5
200 basis points	4.0	2.6	2.8	4.0
250 basis points	4.5	3.1	3.3	4.5
Projected 1995 capital	[a]	1.9	1.3	6.0
Projected 1995 surplus (shortfall) for leverage ratio equal to:				
50 basis points		0.8	0.0	3.5
100 basis points		0.3	−0.5	3.0
150 basis points		−0.2	−1.0	2.5
200 basis points		−0.7	−1.5	2.0
250 basis points		−1.2	−2.0	1.5

Note: Capital includes equity capital and loan loss reserves. Assets include MBS for Fannie Mae and Freddie Mac.

[a]Projected capital is not reported for FHLBs because they already meet fully the phased-in requirement for every management risk leverage ratio alternative.

Source: GAO calculations based on information provided by the GSEs.

Table 4.3: Projected GSE Annual Earnings, 1991-95

Dollars in billions

	Fannie Mae	Freddie Mac	Sallie Mae
Net income	$0.9	$0.5	$0.3
Dividends	−0.1	−0.1	−0.1
Retained earnings	0.8	0.4	0.3

Note: Projected annual earnings were estimated as described in the text. Figures may not add due to rounding.

Source: GAO calculations based on information provided by the GSEs.

Possible Impact on Consumers

Finance literature as well as Fannie Mae and Freddie Mac suggest that mortgage rates are 25 to 50 basis points lower than what they would be without Fannie Mae and Freddie Mac. Much of this rate reduction is attributed to the federal ties leveraged by these two GSEs in their operations, including the ability to operate with less capital than would be the case if the federal ties did not exist. Should future regulations require

capital beyond the amount that can be invested profitably by a GSE, GSE stock prices could decline as capital is added. However, this should only occur when the added capital cannot earn a rate of return—called return on equity—at least as great as what the stockholders could earn elsewhere for the equivalent amount of risk. At some point, increased capital requirements could raise Fannie Mae's and Freddie Mac's capital costs by reducing return on equity. The GSEs could decide to pass through some of these cost increases in the form of higher fees charged to lenders. Lenders could then pass through some of those increases to home buyers in the form of higher mortgage interest rates. We cannot project the extent to which increased capital requirements would result in increased mortgage rates, nor can we estimate at what point increasing the capital requirement would have this effect.

We believe it is possible for Fannie Mae and Freddie Mac to meet increased capital requirements without any resulting increase in mortgage rates. The illustration in the previous section shows that Fannie Mae and Freddie Mac both have substantial capacity to increase their capital base through retained earnings. Also, increased capital levels could reduce Fannie Mae's and Freddie Mac's interest expenses on their debt obligations which would increase their profits. Table I.3 shows that Fannie Mae and Freddie Mac both had returns on equity greater than 20 percent each year since 1987. During that same period, the average return on equity for commercial banks ranged from 2 percent to 13 percent. Furthermore, recent analyses have shown a positive relationship between higher capital-to-asset ratios and higher return on assets in depository institutions.[10] Therefore, to the extent an increase in mortgage rates did occur, we believe it would be small. Competition between Fannie Mae and Freddie Mac, combined with increased opportunities for other financial institutions to securitize mortgages, should work to keep rates from rising much after increased capital requirements are established.

To give some indication of the possible effects of increased mortgage rates resulting from increased capital requirements for Fannie Mae and Freddie Mac, we estimated how various rate increases would increase monthly mortgage costs. Table 4.4 shows the increased monthly mortgage payments for different size mortgages if mortgage rates rose

[10]See Thrifts and Housing Finance: Implications of a Stricter Qualified Thrift Lender Test (GAO/GGD-91-24, Apr. 30, 1991) and Deposit Insurance: A Strategy for Reform. Also, see Remarks by Alan Greenspan, Chairman of the Board of Governors of the Federal Reserve System, before the 27th Annual Conference on Bank Structure and Competition, sponsored by the Federal Reserve Bank of Chicago, May 2, 1991.

between 5 and 40 basis points as a result of increased capital requirements imposed on Fannie Mae and Freddie Mac. We assumed the mortgage was a 30-year, fixed-rate mortgage with an initial interest rate equal to 9 percent. For a $50,000 mortgage, a 5-basis point increase in mortgage rates would result in a $1.80 per month increase in the payment. If the increase was 40 basis points, the monthly payment would rise $14.47. As the mortgage value rises, so does the increased monthly payment for each assumed increase in mortgage interest rates.

Table 4.4: Increase in Monthly Mortgage Payments as Interest Rates Increase

Interest rate increase in basis points	Mortgage value			
	$50,000	$100,000	$150,000	$191,250[a]
	Monthly increase			
5	$1.80	$3.60	$5.40	$6.89
10	3.60	7.21	10.81	13.78
15	5.41	10.82	16.23	20.69
20	7.22	14.43	21.65	27.60
25	9.03	18.06	27.08	34.53
30	10.84	21.68	32.52	41.46
35	12.66	25.31	37.97	48.41
40	14.47	28.95	43.42	55.36

Note: We assumed an initial interest rate of 9 percent.

[a]This amount is the highest mortgage principal currently allowed for Fannie Mae and Freddie Mac.

Regulatory Capital Could Include Equity Capital and Certain Subordinated Debt

In our view, most GSEs should be allowed to meet their regulatory capital requirements with equity capital and subordinated debt. Although equity capital is the best buffer for the government, subordinated debt with features that ensure its availability to protect the government may also provide an acceptable buffer. Subordinated debt is debt whose repayment is permitted only after the claims of senior debt holders and general creditors have been paid. This debt has the added advantage of providing another source of private market discipline on GSEs' risk-taking.

With appropriate restrictions, subordinated debt could be eligible to meet some portion of minimum required capital. In appendix IV, we describe features of subordinated debt that would allow it to be counted as part of minimum required capital. These features include restrictions on interest payments or mandatory conversion to equity shares when certain conditions occur. Such features identify the debt as a buffer for the government, thereby minimizing the chance that market participants

would misunderstand the risks involved in purchasing the debt because of the GSE's ties to the federal government.

In our view, subordinated debt is particularly well-suited to protecting the government's interests from nonmeasurable risks such as management risk because it provides a timely market signal to the regulator. The market perception of the GSE's management and long-term prospects would be reflected by (1) the debt's interest rate, (2) the general market receptivity, and (3) the debt's credit rating. Under our proposal, capital set aside for management risk is determined by the leverage ratio. The stress tests we reviewed were designed so that only equity capital and loss reserves were used in meeting capital required by the tests. With appropriate covenants and restrictions, subordinated debt's price and liquidity should not be distorted by market perceptions of the GSE's ties to the federal government.

Other Methods of Setting Capital Requirements Fail to Meet Some of Our Capital Principles

We found the other methods for setting minimum required capital less than satisfactory because they failed to meet all of our capital principles as completely as the approach just described. Applying bank risk-based capital rules to GSEs would have several shortcomings. These shortcomings stem from the inability of banking rules to fulfill the first principle—to base the capital requirement on all the risks undertaken by the GSEs.

Bank risk-based capital rules were designed to provide a minimum capital base for credit risk only. The rules apply to thousands of banks with widely different levels of credit quality, making many different types of loans to many different types of borrowers. The rules do not differentiate the relative amount of credit risk among different types of assets in a single class of loans, such as home mortgages with high or low down payments, or commercial loans to companies whose debt obligations receive different credit ratings from rating agencies. Such distinctions are important for GSEs concentrated in a single line of business. GSEs generally make or purchase only one class of loans but, within a loan class, credit quality can vary widely. For example, bank rules apply the same risk weights for owner-occupied and investor-owned mortgages that have very different loss histories. Also, the risk-based portion of bank capital rules does not account for interest rate risk or management risk.

Using private rating agencies to set capital requirements would not give the GSEs a clear and prospective measure of their capital requirement as the GSEs make their strategic business decisions. Rating agencies largely

base their decisions on the subjective judgment of those performing the evaluation, without stating specifically the capital levels needed to obtain a given rating. This method would delegate responsibility for ensuring fair treatment and for defining appropriate elements of capital to nongovernmental bodies. We are not ready to delegate to private rating agencies these inherently governmental functions.

Setting Minimum Required Capital Levels Requires Policy Judgments

Setting actual capital levels using both stress tests and a leverage ratio requires policy judgments. Congress and the regulator will need to make tradeoffs between the government's two basic interests in GSEs: (1) avoiding potential taxpayer costs and disruptions to financial markets in case of GSE failure and (2) achieving the public purposes for which the GSEs were created. At some point, excessive pursuit of one of these interests may detract from satisfying the other.

Setting a capital requirement that is too low could result in inadequate protection of the government's financial interests. However, added protection in terms of increased capital or regulation is not without cost. Too high a capital requirement may discourage a GSE from pursuing all aspects of its mission. For example, making loans to support low-income housing is a public policy goal that may be considered higher risk than other mortgage lending and thus would require relatively higher amounts of capital. This circumstance could result in the expected returns from such loans being inadequate to provide shareholders with an acceptable risk-adjusted rate of return, given the additional capital required to undertake such projects. Stress tests will require judgment concerning the assumptions about how severe an economic environment the government wants the GSE to be able to withstand. Before making this judgment, the regulator could consult with the GSEs, rating agencies, and other outside experts to identify possible stressful environments. It then becomes a policy decision as to how stressful an environment the government wishes to protect itself against, given the costs of additional capital.

After selecting the stressful environments, the regulator would have to decide among various options in developing the actual simulation models. We believe these models should be constructed with a reasonable degree of coordination with the GSEs because they must be able to use the models to evaluate the possible results of their business decisions. We envision the regulator using historical data from the GSEs to aid in developing the models. Over time, adjustments to the stress

models could be made as analytical techniques, information, and markets evolve.

With respect to setting a level for the financial leverage ratio, we believe the GSE regulator should begin with a comprehensive evaluation of the relative management and other nonmeasurable risks at each GSE. The evaluation should consider the inherent risks, and the consequences of those risks, in the corporate governance structure and operating methods of each GSE. For example, Fannie Mae, Freddie Mac, and Sallie Mae all operate high-volume businesses that rely heavily on their management information systems. A breakdown in those systems could produce large unforseen losses and invalidate the results of the stress tests. The evaluation should also consider each GSE's policies and procedures designed to mitigate its risks, such as its system of internal controls. Finally, the regulator should weigh the comprehensiveness of regulations used to mitigate risk, the completeness of the stress tests, and the possible effects on public policy purposes of the GSE.

The regulator would also need to identify the degree to which subordinated debt may be used to satisfy the leverage ratio portion of the requirement. It would also need to identify the restrictions that must be placed on such debt.

Once established, we expect the leverage ratio would change infrequently so as not to become too disruptive for each GSE's management and board of directors in setting a course for the business. This stability would help meet our principle that the standard be as clear and prospective as possible. However, the regulator would need some flexibility to raise the level when management weaknesses or unsafe conditions are identified, but not corrected, within a set time frame. The flexibility to raise the capital level on the basis of uncorrected problems would provide added incentives for the GSE to address management and operations problems promptly.

Conclusions

A minimum capital requirement is a key component of any regulatory structure for financial institutions. It protects the government against losses associated with the risks of operating a financial institution. If the capital requirement is to protect the government adequately, it should be based on all the risks that could lead to losses by the government.

Of the currently available methods for quantifying this standard, we believe the federal government would be best served through a combination of stress tests and a leverage ratio. By requiring GSEs[11] to hold capital that satisfies both stress tests and the leverage ratio, this requirement would protect the government against losses associated with credit risk; interest rate risk; and management, operations, and business risks.

This framework also gives the regulator the flexibility needed to update the measurement methods as markets and technology evolve and to balance the public and private purposes of each GSE. This flexibility is critical because the required capital level could profoundly affect each GSE's ability to fulfill its public purpose.

Recommendations to Congress

We recommend that Congress direct the GSE regulator to establish minimum required capital standards for GSEs that are based on the risks they undertake. The standards should include the sum of capital determined by

- empirically based tests of a GSE's capital adequacy to withstand credit and interest rate risk in stressful economic environments and
- a leverage ratio that provides capital for nonmeasurable risks calculated on the basis of on- and off-balance-sheet at-risk assets.

[11] Except the FCS Banks and Banks for Cooperatives, which operate under FCA's risk-based capital guidelines.

GSE Financial Condition

Table I.1 presents government-sponsored enterprise (GSE) assets and mortgage-backed securities (MBS).[1] The Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac), and the Student Loan Marketing Association (Sallie Mae) have grown consistently since 1985. The Federal Home Loan Banks (FHLB) have exhibited an up and down pattern since 1987 and will probably continue to shrink as the thrift industry shrinks. The Farm Credit System (FCS) has shrunk from its 1985 level as it recovers from the farm credit crisis of the early 1980s.

Table I.1: GSE Assets (as of December 31 of Each Year)

Dollars in billions

GSE	1985	1986	1987	1988	1989	1990
FCS	$80	$70	$62	$62	$64	$64
FHLBs	112	132	154	175	181	166
Fannie Mae	154	195	239	282	341	421
Assets	99	100	103	112	124	133
MBS	55	97	140	178	228	300
Freddie Mac	116	192	238	261	308	357
Assets	17	23	26	34	35	41
MBS	100	169	213	226	273	316
Sallie Mae	14	18	23	29	35	41

Note 1: Assets include MBS for Fannie Mae and Freddie Mac.

Note 2: Totals based on amounts before rounding. Totals have been adjusted to avoid double counting of Fannie Mae MBS that Fannie Mae held in its portfolio.

Source: GAO, based on GSE financial information.

Table I.2 presents information on GSE equity capital to asset ratios using year-end figures. Equity capital includes stock, paid-in capital, and retained earnings. The asset figures used have not been adjusted for risk; consequently, a direct comparison among the GSEs without considering relative risk may be misleading. In the cases of Fannie Mae and Freddie Mac, assets include outstanding MBS. After the Agricultural Credit Act of 1987, FCS separated protected borrower stock from at-risk equity capital in its financial statements.

[1]MBS are off-balance-sheet guarantees of the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac). Fannie Mae and Freddie Mac MBS are featured in this appendix because they are the largest components of these GSEs' operations.

Table I.2: Equity Capital as a Percentage of Assets

Numbers are percentages

GSE	1985	1986	1987	1988	1989	1990
FCS[a]	10.5	8.0	8.1	3.3	5.3	6.6
FHLBs	9.0	9.0	8.9	8.9	7.9	7.0
Fannie Mae[b]	0.7	0.6	0.8	0.8	0.9	0.9
Freddie Mac[b]	0.7	0.5	0.5	0.6	0.6	0.6
Sallie Mae	4.7	3.6	3.0	2.8	2.9	2.7

Note: Equity capital is capital stock, additional paid-in capital, and retained earnings.

[a]Beginning in 1988, protected borrower stock was not considered equity capital. In 1988, FCS had $3.3 billion of protected stock; in 1989, it had $1.7 billion of protected stock; in 1990, it had $1.2 billion of protected stock. FCS equity does not include restricted capital in the FCS Insurance Fund of $350 million for 1989 and $438 million for 1990.

[b]Assets include outstanding MBS.

Source: GAO, based on GSE financial data.

Table I.3 presents information on GSE returns as a percentage of average equity capital. Capital balances are the average of beginning-of-year and end-of-year equity amounts.

Table I.3: Return on Average Equity Capital

Numbers are percentages

GSE	1985	1986	1987	1988	1989	1990
FCS[a]	−26.6	−27.3	−0.3	20.0	25.7	16.1
FHLBs	11.5	13.3	10.4	9.9	12.0	11.4
Fannie Mae	−0.7	9.6	25.1	24.9	30.7	33.8
Freddie Mac	30.0	28.5	28.2	27.5	25.0	20.0
Sallie Mae	19.7	21.7	27.0	30.3	28.0	28.2

Note: Equity capital is stock, additional paid-in capital, and retained earnings. Return on average equity capital is net income divided by the average of beginning and end-of-year equity capital.

[a]Equity capital excludes FCS-protected borrower stock for 1988, 1989, and 1990; and excludes restricted capital for 1989 and 1990.

Source: GAO, based on GSE financial data.

With the exception of FCS, the GSEs have been consistently profitable through the last half of the decade. Table I.4 presents information on GSE profitability as a return on average assets. This profitability is measured by the ratio of net income after taxes to average GSE assets. In the cases of Fannie Mae and Freddie Mac, average MBS outstanding is included with average assets.

Table I.4: Return on Average Assets

Numbers are percentages

GSE	1985	1986	1987	1988	1989	1990
FCS	−3.2	−2.6	0.0	1.1	1.1	1.0
FHLBs	1.0	1.2	0.9	0.9	1.0	0.8
Fannie Mae[a]	0.0	0.1	0.2	0.2	0.3	0.3
Freddie Mac[a]	0.2	0.2	0.1	0.2	0.2	0.1
Sallie Mae	1.0	0.9	0.9	0.9	0.8	0.8

[a]Return on average assets includes outstanding MBS.

Source: GAO, based on GSE financial data.

GSEs' Public Purposes

Congress created each GSE to serve one or more public purposes. Most GSE charters[1] contain very general statements of these public purposes. Principally, the charters stipulate the specific markets the GSEs should serve and how they should serve them.

Broadly speaking, each GSE's public purpose is to provide a stable source of credit to certain borrowers or liquidity to certain lenders. This purpose is largely defined through the requirements and limitations placed on each GSE by its charter. Each GSE's charter requires that GSE to serve its specified market(s) on a nationwide basis. However, some charters specify limitations on the terms of some types of transactions. For example, the charter may limit the size of loan a GSE may purchase. In addition, some charters specify how certain financial transactions must be undertaken. Some GSE charters also direct the GSE to target specific groups in a market. These additional requirements may be quite specific or very general. This appendix delineates these requirements for each GSE.

Farm Credit System

The Farm Credit Act of 1971, as amended, states the purpose and objectives of FCS as follows:

"(a) . . . the farmer-owned cooperative Farm Credit System [shall] be designed to accomplish the objective of improving the income and well-being of American farmers and ranchers by furnishing sound, adequate, and constructive credit and closely related services to them, their cooperatives, and to selected farm-related businesses necessary for efficient farm operations.

"(b) It is the objective of this Act to continue to encourage farmer- and rancher-borrowers participation in the management, control, and ownership of a permanent system of credit for agriculture which will be responsive to the credit needs of all types of agricultural producers having a basis for credit, and to modernize and improve the authorizations and means for furnishing such credit and credit for housing in rural areas."[2]

FCS is a system of cooperatively owned institutions operated for the benefit of all eligible member-borrowers. In fulfillment of the charter, FCS institutions make production loans, equipment loans, other operating loans, real estate loans, rural housing loans, and other agriculture-

[1] As used in this report, a GSE's charter is the original legislation that authorized the creation of the GSE and the subsequent amendments to this legislation.

[2] See 12 U.S.C. 2001.

related business loans to eligible borrowers. FCS institutions also offer certain related services to their members.

Federal Home Loan Banks

The Federal Home Loan Bank Act of 1932 authorized the creation of FHLBs and delineated their powers, but it did not enumerate their purposes. The House report to the bill identified these purposes to be the formation of a bank reserve system for home financing institutions (thrifts) that was intended to fill a need for low-cost, long-term installment mortgage money. The system was designed to place long-term funds in the hands of local thrifts, thereby benefitting home ownership in the form of lower costs and more liberal loans.[3]

The FHLB charter permits FHLBs to undertake various activities including making loans (advances) to members, accepting members' deposits, and entering into interest rate transactions. The charter specifies strict underwriting requirements for advances and for the collateral needed to back advances. FHLBs have a statutory priority interest—before that of most other creditors—in the collateral of a borrowing member. This interest largely protects the FHLBs from credit losses if the borrowing institution fails.

The act has been changed several times since its passage, most recently by the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA), which redefined the public purpose of the FHLBs in three general ways. First, it changed several aspects of the advances program, including making the program more closely tied to mortgage lending.[4] Second, it opened membership in the FHLBs to commercial banks and credit unions that have at least 10 percent of their total assets invested in home mortgage loans.

Finally, it directed the FHLBs to establish or maintain two low-and moderate-income housing programs—the Community Investment Program and the Affordable Housing Program, both of which are implemented by a community lending officer designated by each FHLB.

The Community Investment Program targets advances to benefit households whose income does not exceed 115 percent of an area's median

[3]H.R. 1418, 72nd Cong., 1st Sess., pp. 3-11.

[4]Changes to the FHLBs' advances program are summarized in our report, Thrift Industry: The Role of Federal Home Loan Bank Advances (GAO/GGD-89-123, Sept. 21, 1989), pp. 18-19.

income.[5] FIRREA directs each FHLB to make advances to finance home purchases for eligible households, to finance the purchase or rehabilitation of housing for eligible households, and to finance other projects benefitting residents of low- and moderate-income neighborhoods.

The Affordable Housing Program, which began in 1990, requires each FHLB to contribute 5 percent of its previous year's net income or an aggregate amount for all FHLBs of not less than $50 million to subsidize the interest rate on advances to member institutions. Those institutions are to use the subsidized funds to finance long-term, low- and moderate-income housing. Under this program, low and moderate income is defined as families with income less than 80 percent of the area's median income. The statute sets priorities for use of these advances among eligible projects. It also provides the grounds for temporarily suspending an FHLB's obligations if such payments are contributing to its financial instability. By 1995, the FHLBs will be required to set aside 10 percent of the previous year's income or an aggregate amount for all FHLBs of not less than $100 million. During 1990, the 12 FHLBs collectively dedicated $79 million to the Affordable Housing Program.

The Competitive Equality in Banking Act of 1987 required the FHLBs to pay all the administrative expenses of the Financing Corporation—established to issue obligations and raise funds for the Federal Savings and Loan Insurance Corporation—as well as to capitalize it with up to $3 billion. Similarly, FIRREA required the FHLBs to contribute $2.1 billion of retained earnings plus up to $300 million per year from FHLB System income to pay interest payments on obligations issued by the Resolution Funding Corporation to finance the resolution of financial institutions placed into conservatorship or receivership.

Fannie Mae and Freddie Mac

Congress created Fannie Mae and Freddie Mac to establish a secondary market for home mortgages. These GSEs finance their operations by using private capital. The Fannie Mae and Freddie Mac charters state that their purposes are to

"... (1) provide stability in the secondary market for home mortgages;

"(2) respond appropriately to the private capital market; and

[5]FIRREA Section 721. The FHLBs' Community Investment Program was established in 1978 at the urging of President Carter. The centralized program was terminated in 1983, but 10 of the 12 banks have adopted separate Community Investment Fund programs since then. FIRREA established the Community Investment Program as a legislative requirement.

"(3) provide ongoing assistance to the secondary market for home mortgages (including mortgages securing housing for low- and moderate-income families involving a reasonable economic return) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for home mortgage financing."[6]

Fannie Mae's and Freddie Mac's charters generally restrict their business activities to establishing and maintaining a secondary market for home mortgages. Their charters also limit the maximum original principal amount of conventional mortgages that they may purchase and specify a formula for adjusting the limit each year. Each annual adjustment for one- to four-family mortgages must be made on the basis of data from the Federal Housing Finance Board's October survey of major mortgage lenders. Table II.1 shows the maximum limits effective as of January 1, 1991.

Table II.1: Maximum Original Principal Amount of Conventional Mortgages That May Be Purchased by Fannie Mae and Freddie Mac

	First mortgage limits	
Type of mortgage	**Continental U.S.**	**Alaska and Hawaii**
Single family	$191,250	$286,875
Two family	244,650	366,975
Three family	295,650	443,475
Four family	367,500	551,250
	Second mortgage limits	
One to four family	$95,625	$143,400
	Base multifamily mortgage limits[a]	
No. of bedrooms	**Walk-up building (no elevator)**	**Building with elevator**
0	$25,350	$29,250
1	28,080	32,760
2	33,540	40,170
3	41,340	50,310
4	46,800	56,885

[a]For multifamily mortgages, the maximum loan amount per unit is limited to an adjusted level of the statutory base limits established for the Department of Housing and Urban Development (HUD)/Federal Housing Administration section 207 program. For market areas where a HUD high-cost factor is not applicable, the adjustment is 125 percent of the statutory base. For market areas where a HUD high cost factor does apply, the adjustment is 240 percent of the base. The table shows current section 207 base limits.

Source: Fannie Mae.

[6]See 12 U.S.C. 1451 and 1716.

Fannie Mae's and Freddie Mac's charters assign HUD the authority to require that a reasonable portion of the GSEs' mortgage purchases be related to providing adequate housing for low- and moderate-income families, but with reasonable economic return to the GSEs. However, the charters do not define these terms, nor do they indicate how HUD is to carry out this authority. The charter instructs HUD to establish rules and regulations as necessary to ensure that the charter purposes are accomplished.

HUD's current regulations establish two measures for Fannie Mae's conformance with its low- and moderate-income housing mandate.[7] First, whenever in the preceding year Fannie Mae's purchases of low- and moderate-income conventional mortgages are less than 30 percent, the Secretary of HUD may establish an annual goal for Fannie Mae's purchases of these mortgages. HUD regulations define low- and moderate-income families in terms of (1) their home's price in relation to the median family income in an area, (2) whether the property is financed by Federal Housing Administration (FHA)-insured loans, and (3) whether the property is located in a housing project that is receiving housing assistance. Borrower income is not considered in the regulation.[8] Second, HUD requires that 30 percent of all Fannie Mae mortgage acquisitions be mortgages on properties in central cities. HUD defines a central city as the city named by each standard metropolitan statistical area defined by the Department of Commerce. According to Fannie Mae officials, Fannie Mae provides information to HUD regarding its low- and moderate-income housing activities, although HUD has not questioned Fannie Mae's compliance with these regulations.

Fannie Mae and Freddie Mac fulfill their chartered public purposes primarily through establishing and maintaining a secondary market for mortgages. Although these GSEs' charters do not mention subsidized credit to home borrowers, according to Fannie Mae and Freddie Mac

[7]FIRREA established HUD as the regulator for Freddie Mac. HUD is currently drafting regulations for oversight of Freddie Mac.

[8]HUD regulations define housing for low- and moderate-income families as (1) any housing financed by a mortgage loan insured by FHA under section 221, 235, 236, or 237 of the National Housing Act; (2) any housing project with respect to which the owner has entered into a Housing Assistance Payment Contract, or an agreement to enter into such a contract, pursuant to which eligible families in not less than 25 percent of the dwelling units in the project will receive Housing Assistance Payments under section 8 of the U.S. Housing Act of 1937; and (3) any single-family dwelling (including a dwelling unit in a condominium or planned unit development project) purchased at a price not in excess of 2.5 times the median family income (as most recently determined by the Secretary) for the standard metropolitan statistical area so designated by the Department of Commerce, or county not in such area, in which the dwelling is located.

officials and housing finance experts, the GSEs' efficiency in accessing the capital markets, combined with their reduced borrowing costs resulting from their ties to the federal government—allow the GSEs to lower interest rates on mortgages eligible for purchase by them.

Neither Fannie Mae's and Freddie Mac's charter nor HUD's regulations specify how the GSEs should accomplish their mandate regarding low- and moderate-income borrowers. To meet its mandate, Fannie Mae has undertaken a number of projects to address the credit needs of low- and moderate-income households. In 1987, Fannie Mae created an Office of Low- and Moderate-Income Housing within its Marketing Division to expand Fannie Mae's involvement in financing housing for low- and moderate-income home buyers. Fannie Mae reported that, during 1990, over 36 percent of their single-family mortgage loan purchases fit HUD's definition of low- and moderate-income mortgages—i.e., priced at less than 2.5 times the median family income for the local area. Fannie Mae said that the 36-percent figure did not include mortgage revenue bond investments, multifamily mortgage loans, and low- and moderate-income equity investments.

Similarly, Freddie Mac has undertaken several projects to help low- and moderate-income homebuyers. In 1990, Freddie Mac consolidated its affordable housing efforts by creating an Affordable Housing Initiatives Department to target low-income housing initiatives. Freddie Mac reported that, during 1990, 30 percent of the mortgage loans it purchased were affordable by families earning 80 percent of the median income for the local area.

We did not review the GSEs' low- and moderate-income housing activities, but we did ask Fannie Mae and Freddie Mac officials for data on the income of their borrowers to determine whether low- and moderate-income borrowers were being served. Fannie Mae and Freddie Mac officials said that they do not routinely maintain such data in corporate data bases.

Sallie Mae

Sallie Mae's charter states that its purpose is

"... (1) to establish a private corporation which will be financed by private capital and which will serve as a secondary market and warehousing facility for student loans, including loans which are insured by the Secretary [of Education] under this part or by a guaranty agency, and which will provide liquidity for student loan investments;

"(2) in order to facilitate secured transactions involving student loans, to provide for perfection of security interests in student loans either through the taking of possession or by notice filing; and

"(3) to assure nationwide the establishment of adequate loan insurance programs for students, to provide for an additional program of loan insurance to be covered by agreements with the Secretary."[9]

Sallie Mae is authorized to purchase student loans, lend to other financial institutions on the security of student loans, and to buy and sell obligations issued to finance educational facilities. Sallie Mae primarily buys and makes loans backed by student loans that are reinsured by the federal government under the Stafford (formerly Guaranteed) Student Loan Program. The basic interest rate on Stafford loans is set by legislation. Therefore, Sallie Mae cannot lower the borrower's interest costs below the established rate.

Whenever the Secretary of Education determines that eligible borrowers are unable to obtain loans or are not served by a loan guaranty agency or an eligible lender, the Secretary may request that Sallie Mae make direct loans to the borrowers or provide guarantees on loans made by eligible lenders. The Secretary, in October 1990, authorized Sallie Mae to assume temporarily the management of a failed loan guaranty agency.

.rmer Mac

Congress established Farmer Mac as an institution of the Farm Credit System. Farmer Mac's purposes are

". . .to provide for a secondary marketing arrangement for agricultural real estate mortgages that meet the underwriting standards of the corporation—

> "(a) to increase the availability of long-term credit to farmers and ranchers at stable interest rates; (b) to provide greater liquidity and lending capacity in extending credit to farmers and ranchers; and (c) to provide an arrangement for new lending to facilitate capital market investments in providing long-term agricultural funding, including funds at fixed rates of interest; and

"to enhance the ability of individuals in small rural communities to obtain financing for moderate-priced homes."[10]

[9]See 20 U.S.C. 1087-2.

[10]See 12 U.S.C. 2279, aa, note.

The charter states that Farmer Mac was established to operate as a guarantor of asset-backed securities. Asset-backed securities are to b created through a process known as pooling. In this process, Farmer Mac is to certify certain other financial institutions to group or "pool agricultural real estate and/or rural housing loans.[11] These groups of loans are to be used as collateral to create securities that can be boug and sold. Farmer Mac is to guarantee that the principal and interest the securities will be paid according to schedule.[12]

The Food, Agriculture, Conservation, and Trade Act of 1990 authori: Farmer Mac to facilitate a secondary market for Farmers Home Adm istration guaranteed loans. This act authorized Farmer Mac to issue a guarantee securities backed by pools of these loans and to purchase a hold them in portfolio. Farmer Mac's authorizing legislation in 1988 not permit Farmer Mac to pool agricultural real estate loans itself: Farmer Mac may not purchase and hold other agricultural real estate loans as part of its normal business operations.

[11]The statute defines small rural communities as communities having a population of not more th 2,500 and specifies that rural housing purchase prices of pooled loans cannot exceed $100,000 as adjusted for inflation.

[12]For a comprehensive review of Farmer Mac, see Federal Agricultural Mortgage Corporation: Un writing Standards Issues Facing the New Secondary Market (GAO/RCED-89-106BR, May 5, 198

conomic Stress Tests

Stress tests are computer simulations that demonstrate how a firm's financial holdings and obligations will perform under adverse economic conditions. Generally, stress tests simulate an economic environment considered to be a worst-case scenario for the type of business a firm runs.

Stress tests provide a method of evaluating the effects of measurable risks, such as interest rate risk and credit risk, in terms of a GSE's entire portfolio. They can also be used to compare the possible outcomes of various business strategies. For regulatory purposes, stress tests provide a sophisticated way to determine the strength of a GSE's capital position by estimating the effects of adverse economic conditions on capital levels.

Stress tests use mathematical models to translate adverse economic conditions into hypothetical financial outcomes. For example, Freddie Mac's housing default model translates housing price deflation into higher mortgage loan-to-value (LTV) ratios, which, in turn, are used to estimate default rates.[1] This assumes that the probability of default increases as the LTV ratio increases. In fact, available empirical evidence shows that the LTV ratio is the most significant predictor of mortgage defaults. After estimating default rates, Freddie Mac uses its own historic loss data and a cash flow model that converts the default rates into projected losses over the life of the stress test.

ating Agencies Use ress Tests to Help easure Credit uality

Currently, national credit rating agencies use industry-specific stress tests as a part of their credit quality evaluation process. For example, Standard & Poor's Corporation and Moody's Investors Service use "depression" scenarios to evaluate the capacity of private mortgage insurance companies and private issue MBS to withstand defaults.

andard & Poor's orporation

Standard and Poor's Corporation uses an economic scenario that simulates the Great Depression to test the effects of credit risk—the risk and associated loss from defaults on private MBS. The stress test is an important component of the overall credit rating.

[1] An LTV ratio measures the unpaid principal balance of a mortgage as a percentage of the value of the home. For example, a mortgage with a unpaid principal balance of $80,000 on a house valued at $100,000 has an LTV ratio, of 80 percent.

Assumed default rates drive Standard and Poor's residential mortgag stress test. To earn AAA status, private MBS must survive an environ-ment in which 15 percent of their single-family fixed-rate mortgages, with LTV ratios less than or equal to 80 percent, default. To earn AA status, the mortgage pool must survive a 10-percent default rate. In b cases, Standard and Poor's assumes that mortgages with LTV ratios higher than 80 percent default at a considerably higher rate. For example, AA status pools must survive a default rate of approximate 30 percent for mortgages having an LTV ratio of 91 to 95 percent. Star dard and Poor's bases these assumptions on a study of default behav by the National Bureau of Economic Research (NBER) involving urban mortgages originated by 24 life insurance companies between 1920 ai 1946.

To complete the stress test, the loss rates associated with the default are used to project future financial performance. This exercise deter-mines if the transaction can survive the stress without depleting all o its credit support.

Recently, Standard and Poor's reviewed its stress test in order to dete mine whether mortgages originated in the 1920s and 1930s shared sir ilar default characteristics with those originated during a more recen stressful period. Standard and Poor's compared the NBER data with Fannie Mae's and other industry data on mortgages originated in Tex from 1981 to 1983 and found the data to be consistent.[2]

Moody's Investors Service

Declining home prices drive Moody's mortgage credit risk stress test. Falling home prices lead to increased LTV ratios and a significant increase in the mortgage default rate. Moody's assumes home prices v decline 10 percent per year over 4 years and interest rates will steadi decline. Using these declines, it determines higher LTV ratios and asso ated defaults as well as prepayment probabilities for mortgages in the firm's portfolio. Moody's then projects the effects of losses associated with the estimated defaults onto pro forma financial statements for tl life of the stress test.

According to Moody's, the length of time a firm is able to withstand tl "depression" without depleting all of its capital is a key component in the determination of the firm's credit rating. Firms rated Aaa survive

[2]See "Residential Loan Loss Model Assumptions Confirmed," Standard & Poor's Credit Week (Nov. 12, 1990).

the test for 10 years; Aa firms survive for 7 years; and A-rated firms survive for 5 years.

SEs Use Stress Tests Test Capital dequacy

GSEs use stress tests for internal business evaluations. Fannie Mae and Freddie Mac use stress tests internally to measure capital adequacy. Farmer Mac uses a stress test to calculate the level of guarantee fees that it needs for a pool of loans to generate sufficient income to provide an adequate return and maintain a minimum level of capital.

In some stress tests, a GSE is thought to pass the test if it remains solvent for some predetermined amount of time, such as 10 years. That is, the capital level is adequate if it is sufficient to withstand the stressful environment for the specified length of time. In other stress tests, a GSE passes the test if, over the entire time period tested, capital remains positive and the GSE remains solvent. If losses exceed capital, the GSE becomes insolvent and fails the test.

nnie Mae

Fannie Mae determines the level of capital it needs to cover credit risk and interest rate risk by using stress tests. For credit risk, Fannie Mae simulates the effects of projecting its default experience for mortgages originated in Texas during the early 1980s onto all the mortgages it holds in portfolio or MBS. To do this, Fannie Mae assumes that all of its unseasoned, 30-year, fixed-rate mortgages default at the same rate as its unseasoned, 30-year, fixed-rate mortgages originated in Texas in 1981 and 1982.[3]

Fannie Mae estimates the default rates for its other mortgage products as some multiple of the rate used for the 30-year, fixed-rate mortgages. For example, Fannie Mae estimates that, in a high interest rate environment, adjustable-rate mortgages (ARM) would default approximately 1.4 times as often as unseasoned, 30-year, fixed-rate mortgages. Therefore, Fannie Mae uses a default rate for ARMS that is 1.4 times the default rate used for unseasoned, 30-year, fixed-rate mortgages.

According to Fannie Mae officials, projecting its 1981 and 1982 Texas default experience onto its current mortgages results in a 9-percent nationwide default rate. Fannie Mae then uses historical data for the amount of money lost on each default to determine how much it would lose on the collateral (the houses) backing the loans projected to default.

[3]Unseasoned mortgages are those less than or equal to 30 months old.

Fannie Mae then projects these losses onto pro forma financial statements to determine what level of capital is needed to survive the 9-percent nationwide default rate. The simulation lasts for the life of th mortgages; however, almost all of the damage occurs in the first 5 or (years. Mortgages that have not defaulted after 6 years are unlikely to ever default.

Fannie Mae also subjects its portfolio to the effects of decreasing interest rates that would accompany housing value deflation. Fannie Mae estimates the likelihood that borrowers will prepay their mortga; as interest rates move down. Prepayments, like defaults, adversely affect Fannie Mae's earnings. Prepayments decrease earnings througl losses in fee income from MBS and interest income on mortgages held i portfolio. The losses resulting from prepayments are reflected in pro forma financial statements showing any change in Fannie Mae's finar cial position.

To test its exposure to interest rate risk, Fannie Mae runs several sim lations of rapid and sustained increases in interest rates. These simul tions test Fannie Mae's funding strategy—Fannie Mae attempts to match the terms to maturity of its assets and liabilities in a way that minimizes the likelihood that changes in interest rates will cause losse The first test recreates the interest rate volatility experienced betwee 1978 and 1982; the second test involves a 600-basis-point increase in interest rates. Like the credit risk test, the results of these stress tests are projected onto pro forma financial statements using a cash flow model to show the impact of the stress on capital.

Freddie Mac

Freddie Mac uses an options pricing approach as the basis for its credi risk and prepayment stress tests. Freddie Mac views mortgage holder as having three options: (1) to pay their mortgage as scheduled, (2) to prepay their mortgage, or (3) to default. Freddie Mac believes that mo gage holders decide among these choices based on their perception of t value of their mortgage compared with the value of their home (LTV ratio).

Freddie Mac's credit risk stress test is similar to Moody's; housing pric decline 10 percent per year over 4 years and the resulting higher LTV ratio mortgages default at a high rate. The probability that a mortgage will default in each LTV ratio class is calculated by a default model usir Federal Housing Administration data on 30-year, fixed-rate mortgages originated in the 1960s and 1970s. The three LTV ratio classes used in t

model are LTV ratio greater than 110 percent, LTV ratio between 90 and 110 percent, and LTV ratio less than 90 percent. Freddie Mac assumes that mortgages in this third category will not default, because these homeowners would presumably sell their houses for enough money to cover both the cost of the mortgage and the cost of selling their home. Freddie Mac estimates defaults for other single-family mortgage products, like ARMS, by adjusting the 30-year, fixed-rate mortgage data according to historical experience.

Freddie Mac's portfolio and the MBS it guarantees are subjected to decreasing interest rates, increasing the likelihood of prepayments and the associated loss of interest and fee income. Freddie Mac estimates prepayment rates for mortgages with LTV ratios less than 85 percent and assumes zero prepayments for LTV ratios greater than 85 percent.

Freddie Mac also runs a stress test for interest rate risk. In this test, Freddie Mac simulates the high interest rates and stagnant economic conditions of the early 1980s. The stress continues until either the high interest rates deplete capital or 10 years pass.

rmer Mac

The Farmer Mac stress test is slightly different than those described above. The stress test was not designed to determine if Farmer Mac's capital is adequate to survive a severe economic downturn. Rather, Farmer Mac runs its stress test to determine its fee structure. The stress tests evaluates the price Farmer Mac charges for its guarantee. The price must be sufficient for Farmer Mac to survive below average agricultural loan performance during a period of stress in the agricultural economy. The model creates a loan portfolio and generates resulting cash flows for 13 years of loan guarantees. Three-year periods of high foreclosures and loss rates are introduced into the portfolio at year 4 and year 9 of the simulation. The designers of the test believe that the timing of the stress reflects the most likely risk to Farmer Mac because it corresponds to the point where agricultural loans default most frequently. The results of the simulation are used to set Farmer Mac's guarantee fee, subordinated participation interests, and loss reserve balances.

Using Subordinated Debt to Meet Minimum Required Capital

In chapter 4, we propose that both equity capital and subordinated de could be used to fulfill minimum capital requirements set for GSEs by their regulator. We noted that equity capital was needed to meet the portion of capital required by the stress tests but that subordinated d(could be used to meet some portion of capital required by the leverag(ratio. However, subordinated debt is an appropriate form of regulator capital only when it meets sufficient conditions to ensure that the deb provides a buffer to the government.

Equity capital represents shareholders' investment in a firm. It includ stock, additional paid-in capital, and retained earnings. The governme can be assured that equity will be available to cover losses during stressful periods because (1) shareholders cannot force the GSE to rep chase stock or pay dividends and (2) the government would probably force shareholders to lose their entire investment in a GSE before the government would have to decide how to deal with a failed GSE's cred tors and guarantee holders. Thus, the possibility of shareholders losin their investment provides incentives for them to monitor a GSE's risk-taking.

Subordinated debt is debt whose repayment is permitted only after th claims of senior debt holders have been paid. Like senior debt holders subordinated debt holders receive periodic interest payments on the debt obligations they hold. Subordinated debt might fit well with a GSI funding strategy when sufficient capital cannot be maintained throug retained earnings. A GSE may prefer issuing subordinated debt to issui new stock. Interest payments on subordinated debt are tax deductible while dividend payments to shareholders are not. For a financially sound firm, subordinated debt may cost little more than senior debt ar be less expensive than equity.

Subordinated debt could also provide additional private discipline against undue risk-taking. Subordinated debt holders face greater risk loss than other creditors if the GSE fails but, unlike shareholders, they cannot share in added gains if the GSE prospers. Therefore, the interes rate subordinated debt holders will demand before purchasing subordi nated debt will reflect the risks they believe they undertake. Should tl credit market perceive a GSE as taking on higher risks, the subordinate debt's credit rating would probably be lowered and creditors would probably demand higher interest rates before purchasing new subordinated debt issues. Because the GSEs would like to avoid higher interest costs, the market would be providing incentives for GSE management t(better control the risks the latter undertake.

To ensure that subordinated debt provides an effective capital buffer and the proper market discipline, the regulator would need to impose restrictions such as the following on the debt:

- The regulator could require that it be long term. As with equity capital, the debt holder cannot force the GSEs to repurchase subordinated debt during stressful periods unless the debt is maturing.
- The regulator could require that, when subordinated debt is counted as regulatory capital, it be issued so that a portion of it matures during every year. This restriction would provide the regulator with periodic market evaluations of the GSE's long-term prospects for repaying the debt. This restriction would also enable only a portion of the debt to mature during periods of losses.
- Before considering the debt as minimum required capital, the regulator could stipulate that the subordinated debt must contain certain restrictions to protect the government's interest. Such restrictions could automatically suspend interest payments on subordinated debt or require that the debt convert to equity shares when the GSE falls below the minimum required capital level by a given amount for a specified period of time. Some restriction of this sort would be essential to ensure that the subordinated debt provides the government and senior creditors with a buffer for losses.

To fit our requirements, any system of using subordinated debt as capital would have to overcome some obstacles. The restrictions we suggest may eliminate the price advantage of subordinated debt over equity capital. The Internal Revenue Service (IRS) might view our version of subordinated debt as being equity interests, where the periodic payments would not be tax deductible. Without the tax advantage, GSEs would probably not view interest payments as being preferable to dividend payments on equity capital. Also, several GSE officials told us they do not believe a market currently exists for subordinated debt with these features.

Congress could allow a deduction for interest payments on our version of subordinated debt. Without the tax deduction, it is unlikely that GSEs would attempt to issue this type of security. If Congress allowed the deduction, however, GSEs would probably sell such debt if they felt it was economical.

Comments From Fannie Mae

Note: GAO comments supplementing those in the report text appear at the end of this appendix.

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202 752 7136

Ellen S. Seidman
Vice President and
Assistant to the Chairman

May 8, 1991

The Honorable Richard L. Fogel
Assistant Comptroller General of the United States
United States General Accounting Office
441 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Fogel:

Fannie Mae appreciates the opportunity to comment upon the draft report prepared by the General Accounting Office entitled Government-Sponsored Enterprises: A Framework for Limiting the Government's Exposure to Risks. The report is a clear statement of principles that will help guide the debate on this issue in the coming months. As part of this process, Fannie Mae has also articulated some basic principles to guide the modernization of regulation of the company.

Now on p. 7.

Now on p. 5.

Now on p. 6.

We strongly agree with GAO's fundamental premise stated on page 9 that it is undesirable to separate the regulation of programmatic activities from safety and soundness considerations, because such separation would invite duplicative monitoring, regulatory indecision, and business difficulties for the enterprises. We also concur with the premise articulated on page 6 and elsewhere that oversight should supplement, not obstruct, existing corporate governance. As GAO properly notes on page 8, oversight should not be so intrusive that it interferes with Fannie Mae's ability to accomplish our purposes through normal business operations. We do not believe, however, that the establishment of a new, free-standing bureaucracy is the most appropriate way to achieve these goals.

Treasury has recently proposed that HUD's regulatory authority be strengthened by the creation of a new, arm's-length bureau to serve as the financial regulator of Fannie Mae and Freddie Mac. We agree

Fannie Mae The USA's Housing Partner

- 2 -

with Treasury that the regulatory presumption should be in HUD's favor. We also believe HUD needs more effective tools with which to ensure compliance with regulatory standards. However, the full panoply of enforcement authorities GAO suggests would be counterproductive to maintaining Fannie Mae's efficiency and effectiveness. Such enforcement authorities may well encourage a regulator to rely on after-the-fact enforcement, and will not foster regulation based on full understanding of the company and high quality, frequent monitoring designed to detect any problems early.

comment 1.

Fannie Mae is limited to one line of business in which we are expert and which has risks that are quantifiable, based on historic experience. As GAO recognizes on page 64, this makes the use of stress tests to determine the amount of capital required to protect against risks faced by the company particularly appropriate. We agree with GAO's recommendation on page 13 that stress tests be used to determine the amount of capital needed to cover credit risk and interest rate risk. GAO notes that the stress tests models and assumptions used by Fannie Mae, which were developed with the assistance of Paul Volcker and others at the firm of James D. Wolfensohn in New York, have withstood outside scrutiny. As GAO knows, the interest rate and credit stress tests that Fannie Mae applies require Fannie Mae to maintain capital to meet difficulties in the housing markets and movements in interest rates of a character significantly worse than any experienced over the nation as a whole in the post-World War II period. Moreover, the tests assume the simultaneous occurrence of inherently incompatible and adverse stress environments.

v on p. 61.

v on p. 11.

Such conservative and stringent stress tests: (i) protect the government from the greatest risks the company faces -- credit and interest rate risk; (ii) through use of conservative assumptions, incorporate a capital cushion beyond that required to meet the individual stated stresses, which protects against unquantifiable risks; and (iii) fully reflect the interaction between management and operations risk and credit and interest rate risk, in that management decisions to take more risk, as well as losses resulting from operations, are immediately reflected in capital requirements. When combined with a regulatory regime characterized by frequent assessment of compliance with the stress tests, close monitoring and regular examinations, any additional amount of capital required for operations, management and business risk can and must be small.

Although GAO makes no recommendations, the report discusses a capital component for management, operations and business risk of 50 to 250 basis points on all on-balance sheet assets and off-balance sheet obligations. Ironically, most of these levels would result in a capital standard greater than that required for the major, known, and measurable credit and interest rate risks. The total capital standard would therefore largely become a leverage ratio, which GAO recognizes to be inappropriate.

See comment 2.

GAO concludes that it is unlikely that mortgage interest rates would increase "more than 40 basis points" under any of the capital standards the report posits. While GAO appears to find an increase in mortgage interest rates of 40 basis points insignificant, such an increase would have cost American homebuyers at least $700 million in 1990 with respect to mortgages originated in that year alone.

See comment 3.

We strongly concur with the GAO's conclusion on page 79 that it is inappropriate to use rating agencies to set capital requirements. As GAO properly notes, rating agencies largely base their decisions on their subjective judgment and do not state the capital levels needed to obtain a given rating. Moreover, as GAO concludes, use of rating agencies would result in the improper delegation of this important issue to nongovernmental bodies.

Now on p. 76.

There is now a consensus that Fannie Mae does not pose a significant risk to the American taxpayers. As a publicly sponsored private corporation, Fannie Mae has reliably provided mortgage products and services that increase the availability and affordability of housing for low-, moderate-, and middle-income Americans for over half a century. Taxpayers should always feel secure that Fannie Mae will continue to fulfill this mission without posing a risk to the taxpayers. We believe that reasonable regulatory authorities and capital standards that balance the risks with the benefits provided by Fannie Mae will best serve the American taxpayers.

Sincerely,

Ellen Seidman
Vice President for Strategic Planning
and Critical Issues

The following are GAO's comments on Fannie Mae's May 8, 1991, letter.

GAO Comments

1. We agree that the regulator needs to fully understand the GSEs' operations and to conduct high quality, frequent monitoring that is designed to detect any problems early. For the reasons discussed in the text, we believe a new regulatory board would be a more independent and prominent GSE regulator than a separate bureau within HUD. We disagree that it would be counterproductive to Fannie Mae's efficiency and effectiveness for the regulator to have the full panoply of enforcement authorities. If the GSEs only engage in safe and sound practices, remain in a safe and sound condition, and fully comply with their statutory requirements, the regulator would never have to use an enforcement authority. However, when these conditions are not met, the regulator needs to have a full range of enforcement options so it can employ the most appropriate actions, given the circumstances at that time.

2. We offered the analysis in tables 4.1 through 4.3 to illustrate the capacity of the GSEs to meet a wide range of new capital requirements. The leverage ratio we recommend is to cover (1) management, operations, and business risks that may occur in the future or that may already exist but have not yet been identified and (2) shortcomings of the stress tests. We do not infer that the leverage ratio should be any of the levels used in our analysis. However, we believe that management and operations risks could be the greatest source of risk facing the government from GSEs. The range from 50 to 250 basis points cited in our analysis could reflect differences in management and operations risks across various GSEs as well as differences in the ability of stress tests to capture the government's risk exposure to a particular GSE.

Also, we disagree with Fannie Mae's conclusion that our capital standard would be "largely a leverage ratio," and therefore inappropriate, if the capital required by a leverage ratio exceeded that required by stress tests. The factor that matters in terms of providing proper incentives to curtail risk-taking is the marginal change in capital required as the mix of assets changes. Since we envision the leverage ratio being fairly stable over time, marginal changes in required capital will be dictated by the stress test portion of the capital requirement as GSEs change their business mix.

3. The text has been modified to clarify our belief that increased capital requirements for Fannie Mae and Freddie Mac do not require mortgage interest rates to rise. Both of these GSEs have substantial capacity to

increase capital through retained earnings, and therefore would not nec essarily need to increase their prices to meet higher capital requirements. In fact, we do not believe that increased capital requirements wi necessarily raise the cost of capital for Fannie Mae or Freddie Mac. We offer 40 basis points as an upper bound on how much mortgage interest rates might rise because, beyond that point, Fannie Mae's and Freddie Mac's competitive funding advantages would largely disappear, making further increases counterproductive to their businesses. We do not suggest that a 40-basis point rise would be insignificant, but we also do not believe such an increase is likely. The GSEs could choose not to increase rates at all, since both Fannie Mae and Freddie Mac are very profitable with high returns on equity. The purpose of table 4.4 is to show how much a home buyer's monthly mortgage payment might rise if Fannie Mae and Freddie Mac respond to higher capital requirements by increasing the prices they charge.

Comments From Freddie Mac

Note: GAO comments supplementing those in the report text appear at the end of this appendix.

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Freddie Mac

May 9, 1991

Mr. Richard L. Fogel
Assistant Comptroller General
General Accounting Office
441 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Fogel:

Thank you for the opportunity to comment on the second General Accounting Office (GAO) study of government-sponsored enterprises (GSEs). The GAO staff has devoted a great amount of effort to this report and we appreciate the professional nature with which GAO approached the study.

Freddie Mac agrees with several important points made in the report, particularly:

- The best way to measure the risk and determine the capital adequacy of GSEs is through stress tests tailored to the unique business of each GSE. Applying bank risk-based capital rules to GSEs is inappropriate because the rules do not recognize that GSEs' risks are different from those of banks.

- The best oversight system for a GSE is having one regulator to balance the need for safety and soundness with a GSE's mission compliance. This regulator should not involve itself in the day-to-day operations of the GSE.

- Subordinated debt, if structured appropriately, should count toward meeting regulatory capital requirements. Because subordinated debt holders have an incentive to limit the amount of risk a GSE takes, they can provide private market discipline over a GSE's risk-taking.

We do, however, disagree with several conclusions of the study and think that some important points are missing. We discuss our concerns in detail below.

Mr. Richard L. Fogel
May 9, 1991
Page 2

FREDDIE MAC'S CURRENT SAFETY AND SOUNDNESS

In the past year, the Treasury Department, the Congressional Budget Office, the Office of Management and Budget, Standard and Poor's, and Price Waterhouse have all examined Freddie Mac's risks and capital level. All concluded that we do not take excessive risks, are currently adequately capitalized for the risks we do take, and are well managed. In GAO's August 1990 report, GAO uncovered nothing to indicate that any GSE is currently at risk of failure or serious financial loss. We are disturbed that the GAO report is silent on the current status of our capital adequacy.

We believe GAO has performed sufficient analysis to conclude that Freddie Mac is a sound institution. This conclusion should be stated at the begining of the report. It is critical that readers of the report understand that the regulatory recommendations are aimed at preventing future problems, not at addressing current problems.

See comment 1.

We also disagree with the use of simple ratio analysis to describe changes in the financial condition of Freddie Mac and other GSEs in 1990 (page 23). Chapter 4 of the report details the shortcomings leverage ratios have in analyzing risk, and concludes that stress tests are a better measure for analyzing GSE risk. We would like to see the analysis of financial condition supplemented with a discussion of how each GSE's ability to survive a stress test has changed over the year. (For example, how has the credit risk of the portfolio changed and what new assets or liabilities that affect risk have been added?)

APPROPRIATE CAPITAL LEVEL

As we understand the proposed capital requirement, it will be the sum of capital needed to survive an interest-rate risk stress test, capital needed to survive a credit-risk stress test, and capital needed to meet a leverage ratio designed to cover management and operations risk. We have several comments on this methodology.

We believe leverage ratios of 0.50 percent of on- and off-balance sheet assets to 2.50 percent of on- and off-balance sheet assets as an add-on to capital required to survive severe stress tests on interest-rate risk and credit risk are much too high. Freddie Mac's current leverage ratio is 0.77 percent of on- and off-balance sheet assets and our current capital level is sufficient to support all of our interest-rate risk and credit risk under extremely adverse economic scenarios. Requiring an additional 0.50 percent to 2.5 percent capital greatly overstates the need for capital to cover management and operations risk.

Mr. Richard L. Fogel
May 9, 1991
Page 3

Leverage ratios this high fail to take into account that Freddie Mac's management and operations risk is severely limited by the business restrictions in our charter. Unlike thrifts and banks, we are not allowed to enter into business lines such as commercial lending or land loans that carry a high level of management and operations risk. The leverage ratios also fail to acknowledge that Freddie Mac's Board of Directors and shareholders have a strong incentive to minimize the level of management and operations risk. Our long, successful history of managing our risks also argues for a much lower add-on for management and operations risk. The capital required to cover management and operations risk should be a fraction of that needed to cover interest-rate risk and credit risk risks, not a multiple of it as the leverage ratios used in the report suggest.

ee comment 2.

We believe that the leverage ratio for management and operations risk should be tied to the level of capital required for interest-rate risk and credit risk. This is a far more rational approach than tying the leverage ratio to the level of a GSE's assets. We think the level of interest-rate risk and credit risk is a more accurate estimate of management and operations risk than is the size of a GSE's assets. The riskier the enterprise, the more possibility there is for losses stemming from management and operations practices. It would be reasonable to set capital required to cover management and operations risk at 10 percent of the capital required to meet credit risk and interest-rate risk.

HOW FREDDIE MAC SHOULD BE REGULATED

Freddie Mac disagrees with the recommendation that there should be a newly created federal agency to regulate GSEs. We believe the regulator described in the GAO report would be more effective if it is an independent body within the Department of Housing and Urban Development (HUD).

ee comment 3.

We believe creating a new super-regulator will foster the growth of a large, new bureaucracy that would be expensive to operate. Because of the diversity of the GSEs, we think it is likely that the regulator would have to de facto separate itself into specialized entities to handle the distinctions among GSEs. The result would be no gain in efficiency at the cost of a long lead time while the new regulator duplicated the expertise HUD already has related to our mission.

We believe HUD could meet all of your criteria for a regulator. Independence and objectivity could be achieved by creating a new, independent body within HUD (modeled, for example, after the role of the Office of the Comptroller of the Currency within the Treasury Department). The prominence of HUD as a regulator would be

Mr. Richard L. Fogel
May 9, 1991
Page 4

increased by strengthening HUD's regulatory capacity and sophistication. Consistent regulation for similar GSEs would be achieved by having HUD regulate both Freddie Mac and Fannie Mae.

See comment 4.

We strongly disagree with your concern that having a separate housing GSE would increase the risk of an unearned competitive advantage by one or more of the GSEs. In particular you cite the need to ensure a level playing field for the housing GSEs and the Federal Home Loan Banks. Currently, there is no common playing field for Freddie Mac and Fannie Mae, and the Federal Home Loan Banks.

Freddie Mac's and Fannie Mae's functions are to support housing markets through the efficient operation of secondary markets. The Federal Home Loan Banks' function is to provide liquidity to the thrift industry and to allow thrifts to lengthen the maturities of their liabilities. We operate in very different markets. The Banks are not intended to be, and should not be, our competitors. Equally importantly, the entities are structured very differently. For example, the Federal Home Loan Banks are exempt from federal income tax, while Freddie Mac and Fannie Mae are not. In 1990 alone Freddie Mac and Fannie Mae set aside over $600 million for federal income taxes. Creating a level playing field for the housing GSEs and the Federal Home Loan Banks is not an appropriate function for a safety and soundness regulator.

Now on pp. 38-39.
See comment 5.

Freddie Mac is troubled by the reference in the report to certain early draft proposals for GSE regulation prepared by Freddie Mac. The references are used to imply that Freddie Mac supports the positions taken by GAO. We request that all references to a Freddie Mac legislative proposal be deleted. These drafts were for staff discussion purposes only and do not necessarily represent Freddie Mac's current thinking. For example, on page 40 there is a summary of certain tripwires that would lead to greater levels of intervention by the regulator, should Freddie Mac fall below them. The tripwires set forth do not represent our current thinking. We recommend that the report state that we generally support the concept of tripwires because it is consistent with the goal of establishing clear and prospective regulations.

HUD'S CURRENT POWERS

See comment 6.

The report states that Freddie Mac has proposed strengthening HUD's authority to carry out its regulatory mission. The implication is that we do not think HUD currently has adequate authority. This implication is incorrect. As the report accurately states elsewhere, Freddie Mac believes that HUD has the necessary authority to carry out its regulatory mission under current law. Recognizing that others may disagree, however, we would not oppose efforts to clarify that authority in further legislation. Our stance on these points has not changed from earlier discussions.

Mr. Richard L. Fogel
May 9, 1991
Page 5

ow on p. 41.

ee comment 7.

We must also take issue with your description on page 43, Table 2.1. of HUD's regulatory powers with regard to Fannie Mae and Freddie Mac. While we understand that the matter is in dispute, we continue to believe that HUD can, after issuing appropriate regulations, set minimum capital standards and issue the equivalent of cease and desist orders. This conclusion is based on extensive and careful research on the relevant legislative history and general principles of administrative law. While GAO may not wish to adopt this analysis as its own, GAO should, at a minimum, describe HUD's powers on these matters as "unclear." This will acknowledge that a debate is in progress on these legal questions on which reasonable people may disagree.

ADDITIONAL TOOLS FOR REGULATORS

ee comment 8.

We are disappointed that the report does not discuss two important tools to help regulators monitor GSE health. The first is market-value accounting. We believe that market-value accounting is essential in assuring regulators that there is current economic value in the firm. Market-value accounting can serve as a check on the stress tests and can be an important early warning signal that a GSE is getting into trouble. We think the lack of discussion on the merits of market-value accounting is a serious omission from the report.

ee comment 9.

The second tool is the input of the rating agencies. We believe they can provide important information to regulators. For example, ratings could be used as a check on the capital adequacy analysis of the regulator. They also could be used as a safe harbor. For example, obtaining a AA rating from Standard and Poor's could substitute for meeting some regulatory requirements. We think the potential role for rating agencies should be explored more fully in the report.

Thank you for the opportunity to comment on this report. We would be happy to meet with you to discuss our concerns or answer any questions you may have.

Sincerely,

Leland C. Brendsel
Chairman and Chief Executive Officer

The following are GAO's comments on Freddie Mac's May 9, 1991, letter.

GAO Comments

1. As we described in the "objective, scope, and methodology" section, this report presents our proposals for improving federal oversight of GSEs. We were aware that Standard and Poor's was evaluating GSE risks to the government under a Treasury contract and that the Congressional Budget Office was also studying the GSEs' risks and capital. We decided not to duplicate these efforts.

We believe, as the Congressional Budget Office has stated, that to be confident about the overall exposure to risk of the GSEs and the adequacy of their capital, the government would have to conduct thorough examinations of GSE operations in order to verify the data provided by the GSEs and to assess their exposure to management and operations risks. We believe that these examinations should be one of the first activities of the new regulatory board. We are reviewing the implementation of key internal controls at Freddie Mac, Fannie Mae, and Sallie Mae. We expect to report on the results of that review later this year.

Freddie Mac disagrees with our use of ratio analysis to describe changes in financial condition for them and other GSEs. We chose such analysis because it allowed us to use audited data, it provided updates of tables that we had published last year, and it allows a reader to view one GSE against another using commonly understood gauges of condition.

2. Freddie Mac believes that minimum capital to cover management and operations risk should be determined as a fraction of the capital needed to survive stress tests for credit risk and interest rate risk. We find such an approach likely to provide weak protection for the government against the range of risks that a GSE may be undertaking.

In particular, we are concerned about cases when a GSE may acquire assets with characteristics that appear to make them investment quality, but in fact, because of poor underwriting policies or practices, the assets are of far poorer quality. Such was the case with Freddie Mac's portfolio of multifamily properties. Freddie Mac's losses in its multifamily portfolio were significant enough to cause it to eliminate certain multifamily purchase programs. Problems of this sort can cause extraordinary losses, particularly when they occur during a period of severe economic stress. Such management errors do not appear to us to be a function of the risks measured by stress tests, but rather a function of the risks of management and operations failure. Consequently, we

think a separate capital component, set independently of the stress tests' results, is warranted.

3. We do not agree that the quality of independence of a regulatory body within HUD can be commensurate with a fully independent regulator. If that were the case, the regulator could be easily disassociated from HUD with no apparent loss in expertise. We agree that setting up new agencies takes time, but we are not persuaded that this one-time concern should deter interest in achieving true independence of the regulatory activities. Experienced staff within HUD may choose to move to a new regulatory agency to help speed the transition.

4. We are not suggesting that the FHLBs be subject to identical regulation as Fannie Mae and Freddie Mac. Clearly, the regulatory considerations must stem from the statutory authority and benefits granted to the individual GSE. But we disagree that separate regulators are needed. All three GSEs engage in activities designed to enhance the liquidity of the mortgage market. All have banks, thrifts, and credit unions as potential customers. We believe Congress needs to ensure that when GSEs operate in the same markets, regulatory differences arise from true differences in GSE circumstances and risks, rather than just from differences in historical practices.

5. We are reluctant to delete references to this material because it would give the appearance that only Fannie Mae had considered such proposals, when in fact similar proposals have been under consideration by Freddie Mac. We have added statements to the text to reinforce the idea that these are not final positions and to clarify the changes in its position that Freddie Mac cited in its letter.

6. We modified the text to reflect Freddie Mac's position more precisely.

7. Table 2.1 compares existing statutory authorities with the authorities that we propose. Since we propose that the regulator be granted both general powers (which HUD has) and specific safety and soundness authorities (which are not explicitly granted to HUD), we believe our table is more accurate in its current form. This does not imply that HUD would or would not be able to use its general regulatory authority to establish rules governing safety and soundness.

8. We agree that market value accounting would be a valuable tool for the regulator to consider along with information from more traditional

accounting practices. However, we do not agree that one needs to discuss market value accounting in order to discuss regulatory authorities, regulatory structures, or capital standards for the GSEs.

9. As we have said in testimony, we have no objection to using private rating agencies to supplement federal oversight. We, however, do not endorse using private ratings to create a regulatory "safe harbor" where GSEs would be free from regulatory capital requirements or examinations. We believe these regulatory tools are necessary for the government to adequately protect its interest in GSEs. We note that Freddie Mac's letter suggests that a safe harbor be established at a double A level by only a single firm rather than the triple A level implied in Treasury's report.

Our concern partially stems from comparing, for about 200 banks over the past 5 years, ratings by private rating agencies with evaluations by bank examiners. Our preliminary analysis does not show a high correlation between private rating agencies and bank examination ratings. Because the correlations are not high, we are concerned that one method will not substitute well for the other. We are also concerned that a number of banks received double A ratings but, at the same time, had examination scores indicating that the bank was having difficulty in one or more areas of its operations. While we do not imply that either one of these rankings is more reliable than the other, these findings suggest to us that rating agencies may offer a reasonable check on, but not a substitute for, federal examinations.

Comments from the Federal Housing Finance Board

ote: GAO comments upplementing those in the eport text appear at the nd of this appendix.

Federal Housing Finance Board

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Telephone: (202) 408-2500 Facsimile: (202) 408-1435

May 9, 1991

Mr. Richard L. Fogel
Assistant Comptroller General
General Government Programs
General Accounting Office
Washington, D.C. 20548

Dear Mr. Fogel:

Thank you for the opportunity to review and comment on the General Accounting Office's (GAO) draft report, Government-Sponsored Enterprises: A Framework for Limiting the Government's Exposure to Risks. We have organized our comments under several headings:

1. Proposed Single Regulator for All GSEs

The draft report indicates that the GAO's preferred regulatory option is putting all GSE oversight authority under a single regulator. In support of this proposal, the draft report cites the single regulator model as the best way to achieve satisfaction of the five criteria set out for judging regulatory options, particularly those of ensuring arm's length regulation, prominence in government and operational efficiencies.

See comment 1.

We believe this idea has serious deficiencies, at least as regards the Federal Home Loan Bank ("FHLBank") System. First, such a regulatory structure would be unwieldy and less able to act quickly, given the complexity of its portfolio, which the report emphasizes is of great importance in order to contain unanticipated losses. Second, a single regulator of all the GSEs would be drawn inevitably to imposing common standards on the various enterprises irrespective of their differences, which could render them less able to effectively achieve their unique public purposes.

- 2 -

A board composed, as the draft report proposes, of the heads of several agencies would not necessarily be free of all regulatory conflict. Similarly, the division of labor proposed for the "super GSE regulator" between primary and secondary market regulation results in regulatory overlap. For example, Fannie Mae and Freddie Mac operate in both the primary and the secondary markets. The FHLBank System does not operate in the secondary market so it would not fit into the GAO's proposed division between FCS and the other GSEs.

See comment 2.

We also have concerns regarding the actual economies of scale which the draft anticipates the single regulatory model would achieve. While such a model could reduce the need for duplicate computer systems and administrative functions, most of the GSEs would still require specialized staff to evaluate and monitor risk exposure. The report cites the fact that the Finance Board's staff includes only eight examiners, inferring that these are the only employees involved in safety and soundness oversight. In fact, examinations make up only a fraction of the Finance Board's safety and soundness monitoring activity.

See comment 3.

2. <u>Imposition of New Regulatory Structure</u>

We are also concerned about the effect on the FHLBank System of a further change in regulator so soon after the FIRREA-mandated changes. Another change in regulator would generate significant uncertainties that could undermine the progress of the FHLBank System in achieving its public policy purposes.

See comment 4.

3. <u>Separating Safety and Soundness from Programmatic Responsibilities</u>

We agree with the draft report statement (on page 31) that safety and soundness considerations cannot be effectively separated from regulation of a GSE's statutory activities. The draft goes on to offer several reasons why significant conflicts between a GSE's public purpose and its safety and soundness responsibilities are unlikely to occur and we concur in that discussion as well. The key advantage to linking these responsibilities is that the safety and soundness regulator ensures that the GSE is achieving its public purpose in a safe and sound manner.

- 3 -

4. Prominence of the FHFB

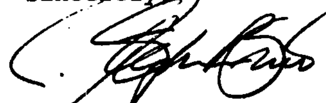
Now on p. 53.

See comment 5.

We disagree with the conclusion (on page 55) that the Senate's failure to date to confirm the nominations of four Finance Board directors is evidence of a "lack of priority within the government concerning FHFB's responsibilities." In contrast, the Department of the Treasury concluded in its recently released study on the GSEs that the Finance Board has the stature necessary to effectively regulate the System. The delay in confirmation hearings relates to a separate debate over the nature of the appointments of the directors and not to the agency's prominence within the government.

Thank you again for the opportunity to review GAO's draft report. Please let us know if we can be of any additional assistance.

Sincerely,



J. Stephen Britt
Executive Director

The following are GAO's comments on the Federal Housing Finance Board's May 9, 1991, letter.

GAO Comments

1. We believe the independent regulatory board we recommend, along with its staff, would be better able to act quickly and to obtain needed actions from Congress and the administration than several smaller regulators. We find no reason to believe that the regulator we recommend would not be able to quickly develop the expertise and understanding needed to effectively regulate the six GSEs. We also do not believe that the regulatory board we recommend would inevitably impose common standards on the various GSEs. We believe Congress can ensure that the standards reflect the differences in the GSEs by appropriate legislative history language.

2. We agree that the board we recommend, or any other board membership, would not be completely free of potential conflict. We believe the board structure we recommend has the least potential for conflict of any available options. We defined primary market participants as those GSEs that lend directly to the ultimate consumers—farmers, students, and home buyers. Since FHLBs lend to other financial institutions and not directly to the ultimate consumers, we included FHLBs with the other secondary market participants. Neither Fannie Mae nor Freddie Mac lend directly to home buyers. We agree that FHLBs operate differently from Fannie Mae and Freddie Mac and would not object to a separate division under our recommended regulatory board for FHLBs.

3. We agree that the regulator will need specialized staff that are responsible for on-site monitoring and evaluation of risk exposure. We also agree that safety and soundness oversight goes well beyond this on-site examination staff. However, we believe that economies of scale go beyond the computer and administrative systems mentioned by the FHFB. We believe duplication of effort can also be eliminated in the analysis of funding strategies, accounting practices, legal departments, and even the analysis of specific markets, like housing.

4. We believe this is an ideal time to move regulation of FHLBs to the new regulatory board we recommend. The full- or part-time status of FHFB's Board of Directors is still uncertain, FHFB is not yet fully staffed, and it is still working on revising the former Federal Home Loan Bank Board's regulations for FHLBs.

5. We did not, as FHFB indicates, conclude that FHFB lacked sufficient prominence in government because the Senate has failed to confirm the nominations of four FHFB directors. We drew this conclusion from the fact that it took over 8 months for the President to nominate the members and then only as part-time members. As we read the Treasury Department's April 1991 report, its conclusion that FHFB had the stature necessary to effectively regulate the FHLB System was based on the authorities of FHFB, not FHFB's prominence in government.

Comments From the Department of Housing and Urban Development

Note: A GAO comment supplementing those in the report text appears at the end of this appendix.

THE DEPUTY SECRETARY
U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, D.C. 20410-0050

May 10, 1991

Mr. Richard L. Fogel
Assistant Comptroller General
General Government Division
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Fogel:

I appreciate the opportunity to review the draft of GAO's second report on Government-Sponsored Enterprises. I want to compliment you for producing a thorough and professional report. HUD staff has provided comments on technical issues by telephone, but I want to comment in this letter on two major policy issues.

First, GAO's conclusion that regulation of GSE's statutory activities can not effectively be separated from safety and soundness considerations is well taken. As you point out, only a single agency can balance Charter Act purposes with the financial oversight needed to protect the public and ensure the long-term viability of GSEs.

See comment 1.

Second, I see serious problems with GAO's recommendation to create a new agency to regulate all of the GSEs, including housing, farm and education enterprises. GAO argues that significant economies would be achieved by combining legal, examination, financial expertise and administrative functions. I disagree because I am concerned that moving GSE regulation to a single regulator would cause a serious loss of program expertise that would more than offset any such savings. Regulation of housing agencies at HUD, for example, is strengthened by the broad range of housing expertise available throughout the Department.

Thank you again for the opportunity to review your draft report on a topic of great significance.

Very sincerely yours,

Alfred A. DelliBovi

Alfred A. DelliBovi

The following is GAO's comment on the Department of Housing and Urban Development's May 10, 1991, letter.

GAO Comment

1. We believe that a new independent regulatory board would be able to quickly obtain and maintain sufficient program expertise in housing, agriculture, and education to effectively regulate the GSEs. To accomplish our proposal, it would make sense to transfer staffs from existing regulators to the new regulatory board. In addition, the nonvoting board members—the Secretaries of HUD, Agriculture, and Education—would be able, along with their staff, to provide the necessary program expertise at the board level. We do not believe that a bureau within HUD, if it is truly separate and independent of other HUD activities as Treasury has suggested, would have much of an advantage over the regulatory structure we recommend in obtaining access to needed housing expertise.

Comments From the Farm Credit Administration

Note: GAO comments supplementing those in the report text appear at the end of this appendix.

Farm Credit Administration

1501 Farm Credit Drive
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(703) 883-4000

May 10, 1991

Mr. Larry Harrell
General Accounting Office
5251 GAO Building
441 G Street, NW.
Washington, DC 20548

Dear Mr. Harrell:

The Farm Credit Administration (FCA) has reviewed your draft report entitled "Government-Sponsored Enterprises: A Framework for Limiting the Government's Exposure to Risk." Generally, we find the draft report to be a thorough and solid treatment of the unique risk features of the Farm Credit System (System) as a Government-sponsored enterprise (GSE). We were also pleased to see that the Farm Credit Administration is acknowledged as the only full-fledged safety and soundness regulator of a GSE, possessing most of the regulatory authorities being advocated for the oversight of other GSEs. Because the FCA regulates institutions that, unlike the other GSEs, are primary lenders to agricultural producers and farm cooperatives, we cannot endorse the report's recommendation for a single regulatory board for all GSEs. As noted in the Congressional Budget Office (CBO) report, it may be difficult for a single agency simultaneously to develop sufficient expertise in housing, higher education, and agriculture to supervise all the GSEs effectively, which could lead to adopting standardized monitoring and capital requirements that do not take into account the differences among the enterprises. The FCA agrees with the CBO that there is a significant problem with the idea of one entity regulating all GSEs. Beyond this point, however, we generally agree with the report's conclusions and recommendations.

See comment 1.

In our testimony to the House Subcommittee on Conservation, Credit and Rural Development on May 8, 1991, we stated "... the best protection for the taxpayer and the best hope for the long-term health of the System is adequately capitalized and soundly managed primary lenders." The FCA believes strongly in this premise and our regulatory efforts are being directed toward that end. Many of the assessments and recommendations in the GAO draft report will help the agency fulfill its regulatory mission.

We strongly agree with the following positions:

- The regulator of a GSE needs general authority to set rules to ensure that the GSE's statutory purposes are accomplished as well as set rules to regulate safety and soundness;

- The capital standards for FCS institutions should be risk-based and be comparable to those of commercial banks, their chief competitor, and the regulator should have the authority to set capital rules to accommodate changes in market conditions; and

- Capital standards need to be established for Farmer Mac and the FCA's regulatory authority over Farmer Mac should be resolved.

2

Following are a few comments we have to offer about positions in the report with which we disagree and items of omission:

See comment 2.

- There is no mention in the GAO report of the Farm Credit System Insurance Corporation (FCSIC). The FCSIC backstops the System's insured obligations and affords some additional protection to taxpayers by virtue of its authorities to assist or facilitate mergers and consolidations of System institutions;

See comment 3.

- While agreeing with the position that GSEs should maintain a minimum amount of capital, the regulator should be the entity to define the components of capital adequacy. The report suggests that subordinated debt might be used to fulfill minimum capital requirements. This arrangement would give the taxpayer some protection, but we would want to fit it into the second-tier of a two-tier capital structure;

See comment 4.

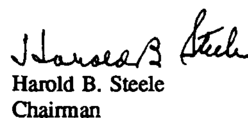
- We disagree in principle with the recommendation that enforcement actions should be statutorily mandated when prescribed conditions are met, because it restricts the flexibility of the regulatory response; and

See comment 5.

- We would take issue with the premise that a regulator that oversees a single regulated entity may have difficulty remaining at arm's length from that entity because the future of the regulator depends on the continued existence of the regulated entity. Contrary to the implied conclusion, the best way to assure the continued existence of the regulated entity is through objective oversight of the safe and sound operation of the entity and its compliance with laws and regulations.

We appreciate the opportunity to comment on your report.

Sincerely,



Harold B. Steele
Chairman

The following are GAO's comments on FCA's May 9, 1991, letter.

GAO Comments

1. FCA is concerned that a single GSE regulatory agency might not develop sufficient expertise in agriculture to supervise FCS institutions. To address such concerns, our proposal envisions that FCA staff will be merged into the recommended new regulator but stay as a separate division. Agricultural expertise would also be available at the board level by having the Secretary of Agriculture as a nonvoting member. Thus, we believe our proposal promotes the independence of the board from the regulated entity and makes GSE regulation more prominent in government while providing for the needed staff expertise.

2. We have added a footnote to the text to explain the Farm Credit System Insurance Corporation's role.

3. We and FCA agree that the regulator should have authority to define the components of capital, including any tiered structure.

4. FCA raises concerns about the need for regulatory flexibility in choosing enforcement actions. Like FCA, commercial bank regulators also desire flexibility and have broad discretion in choosing enforcement actions. Some GSEs, however, have expressed concern about the unpredictable nature of regulatory action when regulators have broad discretion.

Our principal enforcement concern is not flexibility, but rather the effectiveness of managerial and regulatory actions in correcting unsafe and unsound conditions. We do not believe that broad discretion is associated with regulatory effectiveness. Our evidence from analyzing commercial bank supervision is that discretion may lead regulators to take weaker actions than may be needed to effectively resolve problems. We do not object to regulators having authority to waive the expected response to an unsafe or unsound condition should circumstances warrant it. However, we believe that prescribing a tripwire system for enforcement actions based on various phases of unsafe or unsound conditions would help tailor regulatory actions to the severity of the problem. It would also enable the GSEs to operate with more certainty about the regulatory consequences of their business decisions.

5. We agree that the best way to ensure the continued existence of the GSE is through objective oversight of the safe and sound operation of the GSE and its compliance with laws and regulations. We think the regulator

would be more independent and there would be less chance of capture by the GSE with one independent regulator for all GSEs rather than several regulators, each with its future linked to one or two GSEs.

Comments From the Farm Credit System

Note: GAO comments supplementing those in the report text appear at the end of this appendix.

THE FARM CREDIT COUNCIL

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TEL: (303) 740-4200

May 8, 1991

Mr. Richard L. Fogel
Assistant Comptroller General
General Accounting Office
Washington, D.C. 20548

Dear Mr. Fogel:

Thank you for providing the Farm Credit System with the opportunity to comment on the draft GAO report Government-Sponsored Enterprises: A Framework for Limiting the Government's Exposure to Risks.

Now on p. 3.

See comment 1.

On page 4 of the summary, the draft report links the assistance mechanism established for Farm Credit System institutions to the Federal assistance provided the thrift industry. This reference, though brief, leaves the reader with the impression that these two assistance mechanisms and the circumstances which gave rise to them are similar. In fact, they are quite different. There has never been any allegation of fraud nor criminal activity associated with the financial problems of the System. Further, the System is committed to repaying the financial assistance it receives. The distinction between these two situations should be clarified.

See comment 2.

We believe the report fails to provide adequate justification for moving the Farm Credit Administration to a new regulatory entity.

- The report concedes (see Table 2.1) that the System's existing federal regulator, the Farm Credit Administration (FCA), already has all of the requisite authorities and responsibilities needed for an effective GSE regulator:

  i) it can set rules that clearly define regulatory expectations concerning safety and soundness;

  ii) it has the authority to monitor financial performance and compliance with safety and soundness regulations; and

  iii) it has the necessary enforcement authorities

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(e.g., cease and desist, civil money penalties) to address safety and soundness concerns in a timely manner.

Now on p. 4.

See comment 3.

o The report, at page 5, states that "federal oversight of enterprises should be designed to keep emerging problems from imposing losses on taxpayers and to develop appropriate responses quickly so that major unanticipated losses can be contained". We believe that the analysis in the report then illustrates how the Farm Credit Administration is already structured and operating to achieve these goals.

See comment 4.

o The FCA is an independent, self sustaining, armslength regulator. We concur that the FCA should have sufficient prominence and stature to have independent access to the Congress and the President. The mechanism to achieve those objectives is already in place through the Presidential appointment and Senate confirmation of the three FCA Board members.

See comment 5.

o One of the principal responsibilities of the "super-regulator" proposed by the GAO is to establish regulatory capital requirements for GSEs based upon (1) empirically based test of an enterprise's capital adequacy to withstand credit and interest rate risks in stressful economic environments and (2) a leverage ratio that provides capital for management and business risks. The report acknowledges that this approach should not be applied to the Farm Credit System institutions and that their capital requirements "should continue to be patterned after bank risk-based capital rules." The report fails to point out that, unlike commercial banks, System institutions may not count loan loss reserves as capital. This was acknowledged in the Congressional Budget Office report Controlling the Risks of Government Sponsored Enterprises (page 98).

See comment 6.

o The GAO report fails to acknowledge the additional layer of protection afforded the government by the Farm Credit System Insurance Fund (FCSIC). Congress created the Fund principally to protect investors in Systemwide bonds and notes, but also to protect the taxpayers. Through FCSIC insurance premiums paid by System institutions, the agricultural sector is underwriting taxpayer protection for the GSE which serves agriculture's interests.

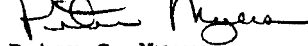
See comment 7.

o Given the foregoing, it is fair to ask what benefit is to be derived from subjecting the Farm Credit System to another layer of Federal supervision.

In summary, in our view the GAO has not identified a single compelling reason for lumping the supervision of the Farm Credit System together with the other GSEs. Indeed, the GAO report in some instances acknowledges (and in the case of the Insurance Fund ignores) a number of unique features of the System and its existing regulator which warrant keeping the FCA separate from the regulatory structure for the other GSEs.

If we can provide any further information regarding these comments, please don't hesitate to let me know.

Sincerely,



Peter C. Myers
President and CEO

The following are GAO's comments on the Farm Credit System's May 8, 1991, letter.

GAO Comments

1. We provide the two examples of past federal financial assistance to the thrift industry and FCS to show that real federal costs are associated with inadequate federal supervision of the risk-taking and capital levels of private financial institutions. We do not wish to imply that fraud and criminal activity were the causes of the FCS crisis.

2. As discussed in the text, we agree that FCA has the requisite authorities and responsibilities needed for an effective GSE regulator. We included the supervision of FCS under our new regulatory board to enhance the regulator's independence and prominence in government.

3. We agree that FCA is structured to achieve the goal of protecting the government's financial interest. We are currently planning an assignment to review FCA's effectiveness in achieving this goal.

4. As discussed in the text, the presidential appointment of FCA Board members has not been prompt, resulting in extended periods where there was no chairperson or no quorum.

5. The text was modified to make clear that the FCS capital rule should take account of differences between FCS institutions and other financial institutions.

6. We added a footnote to the text to explain the Farm Credit System Insurance Corporation's role.

7. We do not believe that transferring regulation of FCS institutions to the new regulatory board would add another layer of federal supervision. It would simply replace a board made up of three presidentially appointed members who, by definition, are not completely independent of FCS' affairs with a board made up of a cabinet level member and two other highly prominent presidentially appointed members who would regulate all the GSEs. The membership mix of the new board should both ensure independence and avoid any possibility of regulatory capture by the GSEs being regulated. We envision that the current FCA staff would continue to examine and supervise FCS institutions under the new board, thus providing the needed expertise. The Secretary of Agriculture would also provide expert advice as a nonvoting member of the board.

Comments From the Department of Agriculture

Note: GAO comments supplementing those in the report text appear at the end of this appendix.

DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20250

May 13, 1991

Mr. Richard L. Fogel
Assistant Comptroller General
General Accounting Office
Washington, DC 20568

Dear Mr. Fogel:

Enclosed are our comments on the draft report entitled Government-Sponsored Enterprises: A Framework for Limiting the Government's Exposure to Risks. This report focuses on regulatory and capital structures of certain government-sponsored enterprises. Our comments are restricted to and focused on institutions of the Farm Credit System.

If you have any questions, please contact Mr. Kenneth Peoples at 737-9255.

Sincerely,

Edward Madigan
Secretary

Enclosures

COMMENTS ON GAO DRAFT REPORT ON GSEs

Single regulatory body for GSEs

See comment 1.

1. Inclusion of the Farm Credit System (FCS) in the single regulatory concept recommended by GAO is not appropriate. Congress comprehensively addressed the establishment of a more arm's length regulator with the primary goal of safety and soundness regulation of the FCS in 1985. The Farm Credit Administration has the regulatory powers and the stature to be an effective safety and soundness regulator of the FCS. Treasury has concurred in this view in its April 1991 Report on Government-Sponsored Enterprises.

See comment 2.

Financial assistance and substantial FCS restructuring was further comprehensively addressed in 1987 and that assistance mechanism has worked well. Less than $1.3 billion of the $4 billion bond authorization has been used. The FCS is on the road toward long-term financial recovery.

See comment 3.

It would be inappropriate to risk reversal of this significant financial recovery and the major strides toward safe and sound regulation of the FCS through consolidation of FCS oversight into one "super regulator." The FCS as a primary agricultural lender is quite different from the other secondary market GSEs and inclusion of the FCS under a super regulator may adversely impact its policy mission in being a sound agricultural lender.

Capital

2. Any GSE that does not have publicly traded, market based capital should be encouraged to issue such capital in order to develop greater economic influences on the GSE's operations.

See comment 4.

3. GAO considers risk based capitalization for the FCS, like other primary lending banking institutions, to be appropriate. However, some consideration of the quality of FCS capital within the context of risk based capital would have been useful. Appropriate tiering of such risk based capital would be appropriate for protecting the government from risk exposure. For example, "at risk" stock of FCS institutions may not truly be "at risk" and may become tomorrow's "protected stock." While the character of "at risk" stock should not be changed, different risk weighting should be considered.

The following are GAO's comments on the Department of Agriculture's May 13, 1991, letter.

GAO Comments

1. As discussed in the text, we agree that FCA has the regulatory powers to effectively regulate FCS institutions. Our reading of Treasury's April 30, 1991, report indicates that Treasury believes FCA is structured appropriately to regulate FCS but that Treasury is silent on whether FCA has the prominence in government necessary to effectively regulate FCS. We believe that placing FCS regulation under a new regulatory board would enhance both the regulator's independence from FCS and its prominence in government.

2. We are currently planning an assignment to review, among other issues, assistance provided under the Agricultural Credit Act of 1987 and FCS' progress in achieving long-term financial stability.

3. We do not believe that placing FCS regulation under an independent, high-level regulatory board would risk reversal of FCS' financial recovery or its ability to achieve its policy mission. We believe the new independent regulatory board would enhance FCS' ability to achieve financial recovery and meet its policy mission.

4. We agree that the quality of FCS capital should be considered in setting FCS' capital standard. Indeed, as stated in the text, we strongly believe that all capital considered in meeting the capital standard should truly be at risk.

Comments From Sallie Mae

Note: GAO comments supplementing those in the report text appear at the end of this appendix.

STUDENT LOAN MARKETING ASSOCIATION
1050 Thomas Jefferson Street, N.W.
Washington, D.C. 20007-3871
202-333-8000

TIMOTHY G. GREENE
Executive Vice President
General Counsel

May 10, 1991

Richard L. Fogel
Assistant Comptroller General
United States General
Accounting Office
Washington, DC 20548

Dear Mr. Fogel:

We very much appreciate the opportunity to comment on your draft report, Government-Sponsored Enterprises: A Framework for Limiting the Government's Exposure to Risks. This is to provide such comment as to both conceptual and factual content of that draft.

Now on p. 26.

First, Sallie Mae continues to believe, as you note that we do (on page 28), that strengthened regulatory oversight of the corporation is unnecessary and that a further distancing from the federal government offers a better means of diminishing perceptions of risk to the federal government.

Now on p. 48.

See comment 1.

Second, we believe that the single, super-regulator approach you espouse would, of all the regulatory approaches you considered, be the most counter-productive to that stated objective. You note (on page 50) that "debt markets tend to view GSE notes and bonds somewhat homogeneously as federal agency debt. Having a single regulator means the market will only have to monitor and react to one regulator for all GSE obligations." With your premise we agree; with your conclusion we do not. No doubt, investors regard GSE obligations "somewhat homogeneously," and, as it follows thereon, "somewhat" differently, each from the others. Sallie Mae is firmly of the opinion that the capital markets recognize differences among the GSEs and appreciate the quality of Sallie Mae's balance sheet; we have certainly marketed our securities on that basis. The creation of a single guarantor to supervise all the GSEs--and only the GSEs--would send a clear signal to the markets that those credits should, indeed, be viewed as "homogeneous." Investor scrutiny of underlying credit and credit differentiation would diminish if not cease altogether.

Third, we believe that endowing any safety and soundness regulator of Sallie Mae with programmatic oversight as well would

Richard L. Fogel
Page Two
May 10, 1991

be both redundant and untenable. Your report calls for the super-regulator, in fact, to have "(1) general authority to set rules to ensure that the GSE's statutory purposes are accomplished and (2) specific responsibility to set rules to regulate safety and soundness." And it says, "Having a federal regulator with such authorities permits orderly interpretation of the statutes without involving Congress or the Courts." This approach we find to be totally contrary to Sallie Mae's creation and ongoing, regular oversight by the Congress as the national financial intermediary for loans originated under the Guaranteed Student Loan Program. Sallie Mae's situation in this regard is totally different from other GSEs. The Guaranteed Student Loan Program is not only a product of statute, it is intensely regulated by the Department of Education with ongoing oversight by the Congressional authorizing committees. Enforcement of such regulation is provided not only by the Department but by the various guarantors of GSLP loans, acting as agents for the Department. It would be inappropriate to add yet another layer to the interpretation of statute as it pertains to the GSLP or Sallie Mae's role in it. Such redundant oversight and second-guessing of the Congress's intent would inevitably result in conflicts at the expense of program participants as well as Sallie Mae and its shareholders.

See comment 2.

Fourth, Sallie Mae believes application of rule-making provisions of The Administrative Procedures Act (APA) to the super-regulator's oversight of GSEs would be totally inappropriate. The APA process contemplates a give-and-take between the federal government and the affected public in the development of federal rules for conduct of federal business. That process is not compatible with the private sector functioning of shareholder-owned corporations.

See comment 3.

In addition to noting these differences in principle with your report, we should take this opportunity to correct a few factual inaccuracies and misunderstandings of our earlier statements.

Now on p. 21.

See comment 4.

First, on page 24, you state that: "Sallie Mae officials said they expected a small portion of these loans to default, resulting in some losses to Sallie Mae unless the Department of Education agreed to pay in full the reinsurance claims filed by HEAF." In fact, we remained confident throughout the HEAF episode of last summer that the Department of Education stood behind GSLP loan guarantees and that we and other holders of HEAF-guaranteed loans would be fully reimbursed in the event of default, provided we complied with due diligence requirements. It was in that context that we noted that loss exposure was small even if one presumed, as we did not, that the Department did not stand behind the guarantees.

Richard L. Fogel
Page Three
May 10, 1991

See comment 5.

In that same discussion, your report says that the Department appointed Sallie Mae "temporary receiver for the orderly dissolution of" HEAF's guarantee portfolio. We were not appointed a temporary receiver but rather were contracted, by the Department, to provide management services to HEAF during its three-year wind down. In that capacity we will oversee the dispersal of the HEAF guarantees, under a plan approved by the Department.

Now on p. 69.
See comment 6.

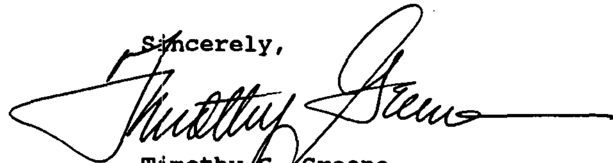
Also with reference to the HEAF work out, it is stated, on page 94, that the Department "authorized Sallie Mae to assume temporarily the existing guaranty responsibilities of a failed loan guaranty agency." Again, the Department did not authorize Sallie Mae to become a guarantor or to assume guarantor responsibilities but rather to provide management services, for a fee.

Now on p. 69.
See comment 7.

Lastly, your report states, on page 71, that "Sallie Mae officials told us that a worst case credit risk scenario for them would be the simultaneous failure of all state guarantor agencies." As noted above, Sallie Mae has always maintained that the statutes pertaining to the GSLP assure that holders of GSLP loans will be fully reimbursed in the event of default provided they have complied with appropriate due diligence requirements. Only to the extent that one believes the federal government does not stand behind the integrity of the GSLP guarantees would Sallie Mae be exposed to guarantor risk. Even then, any assumption that all guarantors would simultaneously fail is extremely remote.

Again, we appreciate this opportunity to make comment on your report.

Sincerely,



Timothy G. Greene
Executive Vice President
General Counsel

The following are GAO's comments on Sallie Mae's May 10, 1991, letter.

GAO Comments

1. We disagree that having a single regulator would be a signal to the markets that the debt obligations and guarantees of different GSEs should be viewed as being homogeneous in terms of credit risk. There is no reason why market participants should view the government improving its current oversight of GSE risk-taking through a single federal regulator as diminishing the need for investor scrutiny of each GSE. In our first report, we showed that investors continued to lend to FCS and Fannie Mae during periods when those GSEs experienced severe financial difficulty. Those investors did demand higher returns to compensate for the risks during those times. We expect the same situation would continue if Congress adopts our recommendations.

2. We do not view federal regulation of the guaranteed student loan program as a substitute for safety and soundness oversight of Sallie Mae. Regulation of the student loan program, as it affects Sallie Mae, is largely concerned with the proper servicing of guaranteed student loans. It is not meant to protect taxpayers from risks undertaken by Sallie Mae. For example, it does not extend to how Sallie Mae funds those loans nor does it extend to other financial activities undertaken by Sallie Mae. We do not envision that our proposed Federal Enterprise Regulatory Board will involve itself with the rules concerning the guaranteed student loan program.

3. We believe the establishment of regulations governing GSEs should conform to the Administrative Procedures Act to ensure a fair, open process. We do not understand why Sallie Mae views such an approach to rule-making to be "totally inappropriate." This approach is designed to protect them from arbitrary and capricious regulation by providing a rule-making process in which GSEs and other parties can participate.

4. Text modified to clarify Sallie Mae's position.

5. Text modified.

6. Text modified.

7. We agree that the simultaneous failure of all guarantors is extremely remote. The point of a stress test is to identify such worst case scenarios. This particular scenario was identified for us by a Sallie Mae official.

Major Contributors to This Report

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Related GAO Products

Failed Banks: Accounting and Auditing Reforms Urgently Needed (GAO/AFMD-91-43, Apr. 22, 1991).

Bank Supervision: Prompt and Forceful Regulatory Actions Needed (GAO/GGD-91-69, Apr. 15, 1991).

Deposit Insurance: A Strategy for Reform (GAO/GGD-91-26, Mar. 4, 1991).

Budget Issues: Profiles of Government-Sponsored Enterprises (GAO/AFMD-91-17, Feb. 1991).

Secondary Mortgage Market: Information on Underwriting and Home Loans in the Atlanta Area (GAO/RCED-91-2, Nov. 28, 1990).

Guaranteed Student Loans: Profits of Secondary Market Lenders Vary Widely (GAO/HRD-90-130BR, Sept. 28, 1990).

Government-Sponsored Enterprises: The Government's Exposure to Risks (GAO/GGD-90-97, Aug. 15, 1990).

Federal Agricultural Mortgage Corporation: Secondary Market Development and Risk Implications (GAO/RCED-90-118, May 4, 1990).

Federal Agricultural Mortgage Corporation: GAO Actions to Meet Requirements in the Agricultural Credit Act of 1987 (GAO/RCED-90-90, Jan. 5, 1990).

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