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HUD MANAGEMENT

FHA's Multifamily Loan Loss Reserves and Default Prevention Efforts

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The Honorable Alfonse D'Amato
Chairman
The Honorable Paul S. Sarbanes
Ranking Minority Member
Committee on Banking,
    Housing and Urban Affairs
United States Senate

The Honorable Jim Leach
Chairman
The Honorable Henry B. Gonzalez
Ranking Minority Member
Committee on Banking and
    Financial Services
House of Representatives

The Department of Housing and Urban Development (HUD), through the
Federal Housing Administration (FHA), insures private lenders against
financial losses from borrowers' defaults on mortgages used to finance
multifamily rental properties. In recent years, the number of defaults on
FHA-insured loans for multifamily housing has grown significantly,
increasing the government's payments to lenders for insurance claims. In
1994, FHA established loan loss reserves of $10.3 billion for its multifamily
portfolio as of September 30, 1993. These reserves represent the amount
that HUD expects to lose from future defaults on FHA-insured loans.

This report was prepared to comply with the requirements in Public Law
103-233, the Multifamily Housing Property Disposition Reform Act of 1994,
for a GAO report on the adequacy of the loan loss reserves covering FHA's
multifamily loan portfolio. As agreed with your offices, we evaluated
(1) the methodology FHA used to establish loan loss reserves for its fiscal
year 1993 multifamily portfolio, (2) the relative benefit of creating a new,
actuarially sound (self-sustaining) insurance fund for all new multifamily
housing insurance commitments, and (3) HUD's current initiatives for
preventing future defaults on FHA's multifamily housing loans. Our review
focused on the loan loss reserve analysis that FHA completed in 1994
covering its multifamily portfolio as of September 30, 1993. FHA's loan loss
reserve analysis covering fiscal year 1994 was being conducted during the
latter part of our review and will be reported in FHA's audited financial
statements later this year.

Results in Brief

Overall, the methodology that FHA used to estimate its fiscal year 1993 loan loss reserves of $10.3 billion was reasonable and represents an improvement over prior efforts. However, the reliability of FHA's estimate is limited by weaknesses in the agency's (1) data, (2) use of several factors associated with default, such as vacancy rates and the physical condition of properties, and (3) assumptions about the probability of default. Although the cumulative impact of these weaknesses on the reliability of FHA's estimate is difficult to quantify, our analysis of the impact of only two of the weaknesses shows that FHA's estimate may be more than a billion dollars higher or lower than the reserves actually needed to cover future losses from defaults. While loss estimates are likely to vary because of the uncertainty associated with any forecast, the cited weaknesses further increase the uncertainty of the forecast.

Creating an actuarially sound insurance fund for all new multifamily housing commitments would probably have both advantages and disadvantages. On the positive side, requiring actuarial soundness would eliminate the need for appropriations to cover anticipated losses on new multifamily loans insured by FHA. These appropriations, which are required under the Credit Reform Act of 1990 and totaled $188 million for fiscal year 1995, could then be applied to fund other programs or to reduce the federal budget deficit. On the negative side, requiring actuarial soundness might entail FHA's reducing the amount of mortgage insurance that is available for higher-risk loans, such as loans to finance the construction of affordable housing for low-income persons in urban areas. Also, because defaults on insured multifamily loans are hard to predict, FHA would probably have difficulty complying with a requirement for actuarial soundness.

To prevent future defaults, HUD is undertaking a number of initiatives that should, if implemented effectively, strengthen its ability to manage its multifamily portfolio and help it address long-standing management deficiencies in its staffing, data systems, and management controls. These include using contractors to collect more complete and current information on the physical and financial condition of insured multifamily properties in order to help HUD field offices more quickly identify troubled properties. However, it is still too early to determine how effective HUD's initiatives will be. Furthermore, HUD has not yet formulated specific plans to develop data systems that can take full advantage of the new information it plans to gain through its initiatives.

Background

HUD supports affordable multifamily rental housing for low-and moderate-income families by providing FHA insurance for loans made by private lenders.[1] When a default occurs on an insured loan, a lender may assign the mortgage to HUD and receive payment from HUD for an insurance claim. HUD, in effect, becomes the new lender for these loans, referred to as "HUD-held" loans. As of September 30, 1994, FHA's insured multifamily portfolio consisted of 15,147 loans with an unpaid principal balance of about $45 billion, and the HUD-held portfolio consisted of about 2,300 loans with an unpaid principal balance of more than $7 billion.

FHA's fiscal year 1993 loan loss reserve analysis was a multistep process that evaluated the risk of default for a sample of insured multifamily loans on the basis of eight factors, such as net income, vacancy rate, and the physical condition of the properties. FHA used these results to divide the multifamily portfolio into five risk categories—doubtful, substandard, standard, good, and excellent. FHA then calculated loss reserves on the basis of default assumptions that it developed for each of the five risk categories.[2] (See app. I for a detailed discussion of FHA's methodology for estimating the fiscal year 1993 multifamily loan loss reserves.)

In addition to estimating the losses from anticipated defaults on loans in its current portfolio, FHA is required, under the Credit Reform Act of 1990, to estimate the net costs to the government of insuring new mortgage loans. The Credit Reform Act was enacted to better capture the government's cost of extending credit. It requires that, for credit instruments—including direct loans, loan guarantees, and modifications to existing credit instruments—issued by the government on or after October 1, 1991, budget authority be provided to cover the government's cost before the loans, guarantees, or modifications are made. Through accounting and budgeting changes, the federal budget now shows whether credit programs represent a cost to the government (a positive credit subsidy), break even (a zero subsidy cost), or make a "profit" (a negative credit subsidy).[3] Credit programs have positive credit subsidies when the present value of the estimated costs to the government (from defaults and delinquencies, interest rate subsidies, and other payments) is greater than the present value of the estimated collections (from payments, including interest and fees). Conversely, programs have negative credit subsidies

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[1]FHA uses its General Insurance Fund and Special Risk Insurance Fund to account for claim payments and other cash flows, such as premium receipts, associated with multifamily insurance programs.

[2]FHA's loss amounts represent estimates of claim payments minus recoveries from property sales.

[3]These calculations are made before administrative costs are taken into account.

when the present value of the estimated collections is expected to exceed the present value of the estimated payments.

Preventing default is a primary function of HUD loan servicers, who are responsible for overseeing project owners, management agents, and lenders to ensure that multifamily properties are maintained in good financial and physical condition. HUD's activities for preventing default include (1) management reviews to determine how a property is being managed by the owner or management agent, (2) financial statement reviews to assess a property's current and near-term financial stability, and (3) physical inspections to determine whether a property is being maintained in good physical condition.

FHA Improved Its Methodology, but Data Limitations Reduce the Reliability of Its Loss Estimates

FHA deserves credit for improving its methodology for estimating its multifamily loan loss reserves. Responding to criticism from Price Waterhouse and others of its previous approach, FHA revised its methodology for analyzing the risk of default on its fiscal year 1993 multifamily portfolio. FHA developed the revised process in conjunction with a working group of outside housing and financial experts, including representatives from the National Assisted Housing Management Association, the Mortgage Bankers Association, and the National Corporation for Housing Partnerships. Financial and housing experts with whom we spoke, such as senior officials from Price Waterhouse and the National Corporation for Housing Partnerships, believe that the methodology FHA used to estimate its fiscal year 1993 reserves was reasonable and represents an improvement over earlier approaches. For example, Price Waterhouse did not express an opinion on FHA's fiscal year 1992 financial statements because FHA was unable to reasonably estimate its multifamily loss reserves. However, Price Waterhouse was able to express an opinion on FHA's fiscal year 1993 financial statements.[4]

Nonetheless, Price Waterhouse also identified weaknesses, such as missing data, that reduce the reliability of FHA's loss estimates. Other housing and financial experts, such as an executive vice president from the National Corporation for Housing Partnerships and the president of Recapitalization Advisors, Inc., a private company, identified changes that they believe would improve FHA's estimates. These include changes in default assumptions and modifications in the use of certain factors associated with default, such as vacancy rates and the physical condition

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[4]Price Waterhouse said that FHA's fiscal year 1993 financial statements present fairly, in all material respects, the financial position and results of FHA's operations and cash flows in conformity with generally accepted accounting principles.

of properties. Overall, we found that the reliability of FHA's fiscal year 1993 loan loss estimate is reduced by (1) data limitations, (2) shortcomings in the way several default factors were used in the analysis, and (3) subjective assumptions about default that are not linked to historical data. Although the impact of these weaknesses is difficult to quantify, their cumulative effect is that FHA's estimate of $10.3 billion may be more than a billion dollars higher or lower than the reserves actually needed to cover losses from defaults. While loss estimates are likely to vary because of the uncertainty associated with any forecast, the cited weaknesses further increase the uncertainty of the forecast.

Numerous Data Limitations Decrease the Reliability of the Analysis

Insufficient data on the financial and physical condition of properties in FHA's multifamily portfolio limit the reliability of FHA's fiscal year 1993 loan loss reserve estimate. Because of data limitations, FHA had to perform its risk analysis on a sample of properties rather than on all of the properties in its insured portfolio. In contrast, financial institutions regularly review their commercial loans individually to identify troubled or impaired loans. (See app. II for a discussion of GAO's analysis).

Furthermore, FHA often did not have complete information on the properties in its sample. For example, it could not obtain sufficient information to analyze the condition of 15 percent of the properties in its sample.[5] In addition, because it could not obtain complete data for many of the remaining properties, it had to rank most of the properties in its sample on the basis of an abbreviated set of risk factors rather than the full set of eight. Finally, incomplete data prevented FHA from including information on 3-year financial trends in its analysis, as it had originally planned. Such information is considered an excellent measure of a project's potential for default.

Some Risk Factors Did Not Effectively Predict Default

The reliability of FHA's fiscal year 1993 loan loss reserve estimate is also limited by risk factors that, as used in the analysis, were of questionable value in predicting default. Specifically, the vacancy rate, management review, and physical inspection factors were of limited value in characterizing the risk in FHA's multifamily portfolio.

For example, FHA used a single overall vacancy rate scale to evaluate the risk of default for all properties in the multifamily portfolio. According to

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[5]App. I provides information on how FHA estimated the risk of default on these loans (258 out of 1,766) in its loss reserve analysis.

housing industry experts, such as the president of Recapitalization Advisors, Inc., this approach fails to recognize that properties in different housing programs may vary in their ability to withstand vacancies. According to Price Waterhouse, the impact of FHA's using the vacancy rate factor was to understate the loan loss reserve estimate.

In addition, the management review and physical inspection factors were often based on properties' scores for other factors because reports from management reviews and physical inspections were not available for many of the properties in the sample. For example, approximately 75 percent of the properties that remained in the sample did not have a management review report, approximately 39 percent did not have a physical inspection report, and 35 percent did not have either a management review or a physical inspection report. Furthermore, although assessing a property's physical condition is important in evaluating the risk of default on a mortgage loan, the approach FHA used for such assessments may not be adequate to measure that risk. Instead of assessing the costs of needed repairs and maintenance, FHA used subjective evaluations (superior, above average, satisfactory, below average, unsatisfactory) of physical conditions that inspectors included in their reports of physical inspections.

FHA Used Default Assumptions That Were Not Based on Historical Data

The reliability of FHA's 1993 loan loss reserve estimate was further limited because FHA was unable to test its assumptions about the probability of default on multifamily loans. Since FHA has not divided its loans into risk categories and tracked their performance over time, it does not have the historical information needed to test the validity of its assumptions about the rate of default for properties in each risk category and the time frames during which defaults are likely to occur.

FHA's use of untested assumptions introduced further uncertainty into the loan loss reserve estimate. Housing industry experts believe that FHA's assumptions about the rate and the timing of default were conservative and caused FHA to overestimate the reserves needed to cover future defaults. In particular, they pointed to FHA's assumptions that defaults would occur (1) within 4 years on 100 percent of the properties characterized as "doubtful" and (2) within 5 years on 75 percent of the properties characterized as "substandard." Small changes in these assumptions have a significant impact on the final loan loss reserve estimate. For example, reducing the default rate from 75 percent to 70

percent for the properties characterized as "substandard" would lower the reserve estimate by approximately $350 million.

During its financial audit of FHA for fiscal year 1993, Price Waterhouse raised questions about the assumptions used because they produce estimated default rates that are almost four times as high as the actual average rate over the past 5 years. However, FHA management believes the assumptions are realistic because many properties in the multifamily portfolio are older properties that need major repairs, which many owners will be either unwilling or unable to make. In addition, FHA management believes the subsidies needed to keep many of the properties operational will not be increased and may even be reduced, whereas the loan loss reserve analysis assumed the continuation of the current subsidies. In any event, the assumptions' accuracy cannot be evaluated until FHA develops a method for tracking the behavior of the loans in its various risk categories—something it has not yet done.

FHA Plans to Introduce Limited Changes in Its Methodology for 1994

The process FHA is using for its fiscal year 1994 analysis is substantially the same as for the prior year's, with only a few exceptions.[6] For example, FHA is attempting to improve the predictive value of its vacancy rate factor by using different scales for subsidized and unsubsidized properties. However, data deficiencies still preclude the use of 3-year financial trends in estimating the fiscal year 1994 reserves, and FHA's estimate will again be based on an analysis of a sample of multifamily properties. According to the Deputy Assistant Secretary for Multifamily Housing Programs, FHA is using a sample for the fiscal year 1994 reserve analysis so that it can expedite the analysis. She said the data limitation that led FHA to use a sample for fiscal year 1993 has been overcome because FHA now has reliable financial data on most of the properties in its insured multifamily portfolio. The Deputy Assistant Secretary also said that in the future, FHA plans to analyze all of the insured properties when developing loan loss reserves.

FHA has recognized the need to test the accuracy of the factors and assumptions it uses in its loan loss reserve analysis. Currently, 48 properties, which were classified as substandard or doubtful in the fiscal year 1993 analysis, are being reviewed to determine their condition because field offices have told headquarters that a number of the

[6]The loan loss reserve for fiscal year 1994 will be reported in FHA's audited financial statements later this year.

properties in the two categories are actually in good condition.[7] This review could identify problems or limitations associated with the factors. Additionally, HUD officials said they plan to test the accuracy of the default assumptions used in the analysis by reviewing the loans on which borrowers default in fiscal year 1995. These loans would be analyzed according to the current methodology to determine whether the loan loss reserve analysis would have identified the loans as being at risk. Because this review would not track the performance of loans in the loss reserve sample over time, it would provide only indirect feedback on the accuracy of the default assumptions used. Furthermore, FHA has no immediate plans to implement this test. It is not clear at this time what additional actions, if any, FHA plans to take to test the reliability of its default assumptions.

A Requirement for Actuarial Soundness Could Have Both Advantages and Disadvantages

Currently, FHA is not required to conduct its multifamily loan insurance program on an actuarially sound (self-sustaining) basis. For fiscal year 1995, the Congress appropriated $188 million in credit subsidies to cover expected losses on new insured loan commitments. Requiring new multifamily loan commitments to be made on an actuarially sound basis would allow these subsidies to be used for other purposes; however, it could also have some drawbacks and create implementation problems.

Credit Reform Act Requires FHA to Estimate Needed Subsidy

To comply with requirements of the Credit Reform Act, FHA must each year estimate the costs to the government of providing mortgage insurance for new multifamily loan commitments. FHA generally estimates these costs for each program, taking into account the amount of the mortgage insurance it expects to provide. First, it estimates the payments it expects to make over the life of the loans, primarily to cover the claims against its insurance fund arising from defaults. Then, it estimates its collections from mortgage insurance premium payments and recoveries on loans that have defaulted. Comparing the estimated payments with the estimated collections, FHA then determines whether the program is likely to have a positive or a negative credit subsidy and calculates the credit subsidy rate. If the program has a positive subsidy rate, FHA must request appropriations to cover the expected cost to the government.[8]

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[7]These reviews are being done by the Special Workout Assistance Teams discussed in the following section on preventing default.

[8]Although an appropriation is provided each year to cover future losses expected on each year's portfolio of insured mortgage loans, these losses are not financed until claims against the Treasury occur.

Requiring Actuarial Soundness Would Free Funds for Other Uses

A primary benefit of requiring the establishment of an actuarially sound insurance fund for all new multifamily commitments is that it would free the funds now used to provide credit subsidies for other purposes. For fiscal year 1995, FHA received approximately $188 million in appropriations for credit subsidies on new multifamily loans. These credit subsidies were associated with approximately $5 billion in expected loan commitments. The largest appropriations were requested for the following purposes:[9]

- Approximately $85 million was requested for insured loans to for-profit borrowers for new construction or for the substantial rehabilitation of rental housing under section 221 (d)(4) of the National Housing Act. According to an FHA multifamily development official, most of these insured loans were expected to be for the development of market-rate properties, although some loans for low-income properties were also expected.
- Approximately $40 million was requested for risk-sharing arrangements with state and local housing finance agencies under section 542 (c) of the Housing and Community Development Act of 1992. Under these arrangements, housing finance agencies agree to take between 10 percent and 90 percent of the risk of loss on loans for new construction or for the substantial rehabilitation of multifamily properties.

Appendix III provides additional information on programs for which FHA received funds to provide credit subsidies in fiscal year 1995.[10]

Eliminating the appropriations for mortgage insurance commitments would allow the funds to be used for other federal programs or for reducing the federal budget deficit. According to one congressional staff member, some funds currently used for credit subsidies might better be used for subsidies (such as federal rental assistance) that are more directly targeted to persons with lower incomes.

Another potential benefit of a requirement for actuarial soundness is that it could further pressure FHA to reduce the risk of default on insured multifamily loans by improving its loan underwriting and loan servicing.

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[9]FHA officials told us that these requests were based on the assumption that a planned increase in mortgage insurance premiums would take effect in January 1995. Because FHA subsequently decided to delay this increase, the officials told us that FHA was requesting a reallocation of the appropriations it received for multifamily credit subsidies.

[10]For fiscal year 1995, FHA also planned to approve mortgage insurance on $3.6 billion in new multifamily loan commitments for programs that have negative credit subsidies, including insurance on loans for nursing homes and hospitals and equity take-out loans to owners of projects that agree to preserve property units for families with lower incomes.

FHA's current and planned actions to reduce defaults on multifamily loans are discussed later in this report.

Requirement for Actuarial Soundness Has Potential Disadvantages

According to FHA multifamily housing officials and housing experts we contacted, requiring actuarial soundness for new multifamily loan commitments could have some disadvantages and could cause some implementation problems, including the following:

- It could lead FHA to reduce insurance availability for affordable low-income housing as a way to reduce expected losses on multifamily loans. For example, the Director of FHA's Office of Insured Multifamily Housing Development believed that a requirement for actuarial soundness could cause FHA to reduce the number of loans for affordable housing in central cities that it insures under section 221(d)(4) of the National Housing Act because the risk of default on such loans is generally relatively high.
- It could cause FHA to substantially increase the insurance premiums it charges for multifamily loans, which could increase housing costs and reduce the demand for FHA insurance. Increases in insurance premiums could also create an "adverse selection" problem if borrowers financing "lower-risk" loans decided not to apply for FHA insurance because of its increased cost. The overall risk of the loans that FHA insures would then increase, and further premium increases might be required.
- It could create additional pressure for FHA to "cross-subsidize" its insured loan origination activities. In theory, FHA could insure more "profitable" loans (i.e., loans with negative credit subsidies) or raise its mortgage insurance premiums on such loans. Then, it could use the increased negative credit subsidies to offset losses on loans with positive credit subsidies. However, if FHA increased the premiums for "profitable" loans, it might receive fewer applications for insurance, and its cross-subsidization efforts would be frustrated.
- It could create compliance problems because defaults on multifamily loans are difficult to predict. To ensure that receipts were adequate to cover the government's costs of insuring multifamily loans, FHA would have to be able to accurately estimate the government's future liability for default claims.[11] However, the methodology FHA now uses cannot be relied

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[11]In our October 1993 report Housing Finance: Expanding Capital for Affordable Multifamily Housing (GAO/RCED-94-3), we noted that the difficulty in accurately determining the price of subsidies associated with federally supported credit enhancements for multifamily housing was linked to the lack of data on the performance of multifamily loans. We stated that a national data base on the performance of multifamily housing loans could improve compliance with requirements of the Credit Reform Act and also help provide investors with the information they need to consider increasing their investments in affordable multifamily housing.

on to produce accurate estimates of such claims. This methodology is based primarily on historical cash-flow analyses carried out by Price Waterhouse as part of a 1992 study. Price Waterhouse initially attempted to develop econometric models to estimate loan defaults and prepayments. However, its attempts were not successful for several reasons, including the following: (1) financial variables that predict loan failure were difficult to forecast; (2) many factors affecting projects' performance, such as management, were assessed qualitatively and could not easily be modeled; and (3) key factors (such as projects' ownership structure and tax considerations) needed to understand owners' decisions to continue or cease mortgage payments were not known.

In spite of the potential problems associated with imposing a requirement for actuarial soundness, FHA's Deputy Assistant Secretary for Multifamily Housing Programs told us that FHA was looking at whether FHA could carry out its future multifamily insurance activities on a self-sustaining basis. She also said that FHA was looking into ways to improve the way it calculates credit subsidies and sets mortgage insurance premiums.

The Impact of HUD's Default Prevention Initiatives Is Uncertain

HUD has recognized the need to develop alternative approaches to prevent default and has undertaken several initiatives to better manage its multifamily portfolio and correct long-standing deficiencies in staffing, data systems, and management controls. These initiatives are aimed, in large measure, at obtaining the basic, reliable data about the financial and physical condition of the properties that are needed for effective oversight. If implemented effectively, the initiatives should enable HUD to better manage its multifamily portfolio. However, because most are being planned or are just starting to be implemented, it is too early to determine their effectiveness. Furthermore, the effectiveness of some will depend upon improvements in HUD's multifamily's data systems.

Identified Management Deficiencies Have Gone Uncorrected for Many Years

Over the last two decades, GAO, Price Waterhouse, and HUD's Office of Inspector General (OIG) have frequently reported that HUD has not effectively managed its insured multifamily portfolio. Since 1987, HUD itself has reported its multifamily loan servicing as a material weakness under the Federal Managers Financial Integrity Act (FMFIA). Because of inadequate management, a number of insured multifamily properties provide very poor living conditions for families with low incomes. Inadequate management has also contributed to a large number of past and anticipated defaults on FHA-insured loans.

Long-standing deficiencies in staffing, data systems, and management controls have impeded HUD in managing its portfolio. For example, HUD does not have enough staff with the proper skills to service its loans. As HUD's OIG and HUD staff have repeatedly noted, inadequate staffing and resources have hampered the performance of fundamental FHA activities, such as monitoring the insured loan portfolio and servicing HUD-held mortgages.

HUD also lacks the data systems it needs to adequately support its loan-servicing functions. According to HUD's OIG, HUD's automated data systems cannot be relied on to provide relevant, timely, accurate, or complete information on a project's physical or financial condition or on the project's management. GAO has also found that HUD's systems do not adequately support the early detection of problem loans and the management of actions to correct loan problems.

Weaknesses in management controls—including the physical inspections, financial statement reviews, and management reviews performed by its field offices—have prevented HUD, according to its OIG, from consistently identifying and resolving problems that could lead to insurance claims, excessive rental subsidies, and/or substandard living conditions. In addition, field offices have not adequately followed up with owners and management agents to ensure that identified problems have been corrected. Similarly, GAO has found that although HUD has a wide range of enforcement tools—such as the option to limit an owner's future participation in HUD programs—to ensure that owners maintain their properties, HUD uses these tools sparingly and inconsistently.

HUD Is Beginning to Implement Default Prevention Initiatives

HUD is undertaking several initiatives to resolve the weaknesses in its staffing, data, and management controls and to improve its ability to prevent defaults in its multifamily portfolio. Each of these initiatives has the potential to reduce one or more of HUD's major weaknesses.

To reduce the workload of its field office staff and provide them with current information on the physical condition of the properties for which they are responsible, HUD has, for several years, allowed its regional offices to hire contractors to perform physical inspections. In February 1994, HUD also hired a contractor to collect and analyze financial statement data for its insured multifamily properties and to teach its field office staff how to interpret the data. Once these data are collected, HUD plans to use them in

an "early warning system" it is developing to improve its field offices' ability to quickly detect projects with financial problems.

In November 1994, HUD trained and organized a 24-member Special Workout Assistance Team (SWAT) to help its field offices deal with troubled insured multifamily properties. Together, the team members and field office staff will analyze selected properties, identify problems, and develop strategies to resolve these problems. Through these joint efforts, HUD hopes to improve conditions at 100 to 150 troubled properties during the first year and, as a by-product of the collaboration, to enhance the training of its field staff. HUD has also contracted for the development of a loss mitigation handbook that will provide further guidance to field offices on diagnosing and treating projects where a default seems likely.

HUD has begun to work with various mortgagees to improve its data on individual projects and to ensure that the mortgagees adequately carry out their loan-servicing responsibilities. For example, the Director of HUD's Office of Multifamily Housing Management said that HUD is in the process of establishing an electronic linkage with mortgagees to give it immediate, central access to information on loan delinquencies and defaults. Currently, this information is sent to the field offices in written reports and may arrive too late for HUD to take effective action. HUD is also planning to develop standardized physical inspection requirements for mortgagees so that it can rely more on their inspections, with the long-term goal of eliminating the need for HUD to conduct its own inspections. Some field offices now consider mortgagees' inspections unreliable.

In late 1994, HUD began to sell HUD-held mortgages as a way to reduce the workload of its loan-servicing staff and help to solve its staffing problems. Servicing HUD-held mortgages consumes a large share of staff time and resources. As these mortgages are sold, FHA can devote more of its asset management staff and resources to monitoring its insured mortgage portfolio.

In addition to these default prevention initiatives, HUD is also developing a proposal that would "reinvent" the way that FHA carries out its multifamily activities. As part of this reinvention, FHA would be recreated as a government-owned, market-driven enterprise. In addition, multifamily properties that receive rental assistance from HUD (Section 8 subsidies) and have rents above the fair market rent would be "marked to market"—that is, Section 8 rents would be lowered to reflect comparable market rents. For insured multifamily properties, the mark-to-market

proposal also calls for restructuring the mortgage debt to allow the property to continue to operate at the new (lower) rents. Furthermore, the reinvention proposal calls for phasing out rental assistance that is tied to individual properties (project-based Section 8 subsidies) and replacing it with rental assistance that is provided directly to tenants, who could choose where to live. Because this proposal is still being drafted, it is not yet clear what impact it would have on HUD's default prevention activities.

Default Prevention Initiatives Have Some Limitations

HUD's initiatives represent a step in the right direction and should enable HUD to better manage its multifamily portfolio. However, because they are still being planned or have just started to be implemented, it is difficult to assess their full impact or determine whether they go far enough in addressing HUD's problems. Furthermore, they have some limitations, particularly in the area of data systems. For example, it is not clear when FHA can expect to have the basic data systems it needs to support its portfolio management activities. In addition, its data systems lack several key capabilities used by other organizations involved in multifamily housing.[12] GAO identified a number of these capabilities:

- Financial statement and physical inspection data are supplied by outside parties on electronic media that provide for efficient and accurate data collection.
- Information systems compile data from assessments of projects' financial condition, physical condition, and management and compare the results against criteria to identify high-risk loans.
- Information systems track progress in implementing corrective action plans developed for troubled or potentially troubled properties.

According to loan management officials at these organizations with multifamily loan portfolios, these capabilities enabled them to efficiently monitor the quality of the information provided by their contractors, develop and refine their criteria for potentially troubled loans, rank all of their loans on the basis of risk for the purpose of estimating loss reserves, and measure their progress toward meeting management goals for identifying and resolving loan problems. Although HUD does not have specific plans for developing these capabilities, it does intend to continue developing an early warning system that will consider data on a project's physical condition and management as well as financial data.

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[12]Information was obtained from the Federal Home Loan Mortgage Corporation, the Federal National Mortgage Association, and the Massachusetts Housing Finance Agency.

The SWAT initiative also has potential limitations. Given the limited resources allocated to the effort and the many properties with physical and financial problems, it is not clear how long this initiative will take to have an effect on the management of HUD's insured multifamily portfolio. A capital needs assessment of the insured properties, conducted in 1992, showed that about 3,200 had physical and/or financial problems severe enough to jeopardize tenants' well-being, impair sound operations, or lead to financial failure. At the planned rate of 100 to 150 projects per year, the teams are likely to be in business for many years, even if they train HUD field staff to extend their efforts.

Another potential limitation of these default prevention initiatives is that most of them will require a sustained commitment to developing staff and systems and improving portfolio management. According to Price Waterhouse, HUD has been unable to fully correct FHA's problems because its follow-through on planned actions has been incomplete or spotty.[13] In recent testimony before the House Committee on Banking, Housing, and Urban Affairs, the Inspector General also noted with concern that HUD is not making progress in developing adequate data systems in the multifamily area.

Conclusions

FHA deserves credit for improving its loan loss reserve methodology as well as for planning to (1) rank all of its multifamily properties on the basis of risk and (2) include the assessment of 3-year financial trends among the factors it considers in estimating future reserves. However, these improvements cannot be implemented before the fiscal year 1995 loss reserves are established in 1996. Consequently, some of the problems that prevented FHA from accurately and reliably estimating its future losses from defaults for fiscal year 1993 will also impair its estimate for fiscal year 1994. Furthermore, until FHA develops a system for tracking the performance of loans in its portfolio, it will not be in a position to assess the accuracy of the default assumptions it used to estimate its loan loss reserves. Although FHA plans to test its default assumptions by retroactively ranking the risks of the loans that fail in 1995, this action will provide only indirect feedback on the accuracy of the default assumptions used and will not adequately test the accuracy of these assumptions. In addition, FHA has no immediate plans to implement this test.

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[13]Price Waterhouse noted that, in some cases, budgetary or legislative constraints contributed to HUD's inability to follow through on its plans.

Through its default prevention initiatives, HUD should be able to better manage its multifamily portfolio and to partially correct its staffing, data, and management control weaknesses. However, HUD's initiatives have some limitations, particularly in the area of data systems. Although HUD is taking steps to collect better data on its multifamily portfolio, it has not yet developed specific plans for incorporating analytical and tracking capabilities into its data systems that will allow it to gather data through electronic media on the financial and physical condition and on the management of the multifamily projects in its portfolio, take corrective actions, and monitor the progress of its corrective actions.

Recommendations

To estimate its loan loss reserves more reliably, we recommend that the Secretary of HUD direct the Deputy Assistant Secretary for Multifamily Housing to establish a process for tracking the performance of its multifamily projects to obtain the data needed to test the accuracy of its assumptions about default. In addition, to obtain the information it needs to manage its multifamily portfolio effectively and to measure its performance, we also recommend that the Secretary direct the Deputy Assistant Secretary to develop specific plans for incorporating capabilities into its data systems that will allow it to (1) gather data through electronic media on the financial and physical condition and on the management of the multifamily projects in its portfolio, and (2) track the progress of projects in implementing actions to prevent default.

Agency Comments and Our Evaluation

On March 2, 1995, we provided a draft of this report to HUD. Responding on April 14, 1995, HUD agreed with our assessment that its fiscal year 1993 loan loss reserve estimate was imprecise; however, it maintained that highly precise loan loss reserve estimates are not achievable because of the many uncontrollable events and lengthy time frames involved. We agree that loss estimates are likely to vary because of the uncertainty associated with any forecast, but we believe that the weaknesses cited in this report further increased the uncertainty of HUD's fiscal year 1993 estimate. HUD also stated that samples may be used appropriately in developing loan loss reserves. Our report does not assert that HUD's loan loss methodology was flawed because a sample was used. Our point is that the use of a sample reduces the reliability of FHA's loan loss reserve estimate and that this increased uncertainty should be recognized.

HUD also stated that the shortcomings we identified in the fiscal year 1993 reserve estimate have been addressed in calculating the 1994 estimate.

While we recognize that HUD has taken some steps to overcome weaknesses in its fiscal year 1993 estimate, its fiscal year 1994 estimate will not address all of the problems we identified. For example, data deficiencies still preclude the use of 3-year financial trend data, and management reviews and physical inspection reports, as used in the analysis, still may not be adequate to measure the risk of default. We note that HUD's response does, however, anticipate methodological changes in the future. Specifically, FHA reported that it would hire a large certified public accounting firm to review its present methodology and to recommend and develop an enhanced model for estimating its fiscal year 1995 loan loss reserves.

Finally, HUD disagreed with our assessment that the use in the analysis of subjective default assumptions reduced the reliability of the estimate. HUD stated its preference for "relevant judgment-based data over objective nonrelevant data," defining historical default data as nonrelevant and suggesting that GAO supports the use of historical data alone in estimating future defaults on loans. HUD's response misinterprets our position. Our report never suggests that HUD base its loan loss reserve estimate on unadjusted historical data. However, in our view, prudence would dictate the use of objective, historical data on defaults as a benchmark, adjusting these data as necessary to reflect current and/or changing conditions. Furthermore, the reliability of the loss estimates would be enhanced if HUD would test the validity of its assumptions about the rate of default for properties in each risk category and the time frames during which defaults are likely to occur by comparing these assumptions with actual performance over time. Consequently, we believe that our recommendation that HUD test the accuracy of its default assumptions by establishing a process for tracking the performance of FHA's multifamily projects is still valid. In its comments, HUD does not indicate what steps, if any, it will take in response to this recommendation.

We conducted our review from August 1994 to May 1995 in accordance with generally accepted government auditing standards. (See app. IV for a discussion of our scope and methodology.)

We are sending copies of this report to appropriate congressional committees, the Secretary of Housing and Urban Development, the Director of the Office of Management and Budget, and other interested parties. We will make copies available to others upon request.
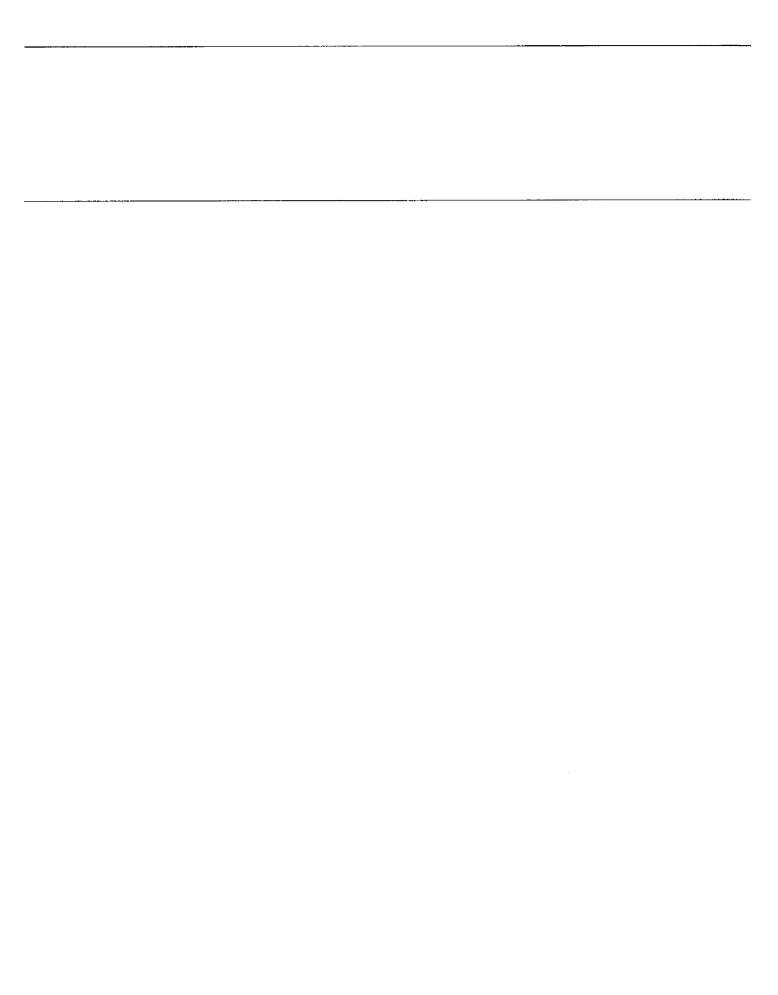
Please contact me at (202) 512-7631 if you or your staff would like additional information on this report. Major contributors to this report are listed in appendix V.

Judy A. England-Joseph
Director, Housing and Community
  Development Issues

Contents

Appendix VI **Major Contributors to** **This Report**	38

Related GAO Products	40

Abbreviations

FHA	Federal Housing Administration
GAO	General Accounting Office
HHS	Department of Health and Human Services
HUD	Department of Housing and Urban Development
OCCR	operating cost coverage ratio
OIG	Office of Inspector General
SWAT	Special Workout Assistance Team

Methodology for FHA's Fiscal Year 1993 Multifamily Loan Loss Reserve Analysis

The Federal Housing Administration (FHA) established its fiscal year 1993 loan loss reserves by (1) evaluating the risk of default for a sample of multifamily projects on the basis of a set of factors, (2) using these results to divide the multifamily portfolio into five risk categories, and (3) calculating loan loss reserves on the basis of default assumptions for each of the five categories. To estimate the loan loss reserves, FHA divided its insured multifamily portfolio into two groups: multifamily rental properties (including coinsured properties) and hospitals. While the analyses for the two groups of projects were similar, FHA separated the hospitals from the rest of the portfolio because (1) factors that affect the financial performance of hospitals do not necessarily affect the financial performance of multifamily rental properties and vice versa and (2) staff from the Department of Health and Human Services (HHS), not FHA staff, are responsible for monitoring the financial performance of the hospitals in FHA's multifamily portfolio.

Sample Selection

FHA based its analysis on a sample of 1,766 multifamily projects. FHA allocated sample projects to each of 12 multifamily programs on the basis of each program's share of the total balance of the multifamily portfolio. For example, the section 221(d)(4) program had an unpaid principal balance of $15.5 billion as of April 30, 1994, equivalent to 45.84 percent of the multifamily portfolio's unpaid principal balance. FHA therefore allocated 45.84 percent of the sample projects—or 809 projects—to the 221(d)(4) program. FHA selected individual projects for inclusion in the sample by applying a random selection process to the projects in each program.

In addition to analyzing the 1,766 multifamily projects in the sample, FHA intended to analyze all existing coinsured projects in its multifamily portfolio. However, data limitations allowed FHA to include only 388 coinsured projects whose unpaid principal balances totaled approximately $3.08 billion (approximately 90 percent of the coinsured dollars in FHA's multifamily portfolio). FHA also selected 34 hospitals whose unpaid principal balances totaled approximately $1.84 billion. The hospitals were identified through a hospitals "Credit Watch List" maintained by HHS and represented hospitals identified by HHS staff and others as being financially unsound.

Default Risk Factors

Projects in the sample were evaluated against a series of weighted performance indicators designed to measure the risk of default for each

project. FHA set performance standards for each of the indicators and compared financial, physical, and management information for each project with the standards. Projects accumulated risk points through a comparison with FHA's standards—fewer points were assigned for good performance, and more points were assigned for poor performance. Table I.1 lists the indicators, their computations, and their weights.

Many of the projects in the sample did not have all of the information needed for ranking. Therefore, FHA specified that, in order to be ranked, a project had to have information for two of the following three financial indicators: (1) the operating cost coverage ratio (OCCR), (2) the current ratio, and (3) the reserve for replacement per unit. FHA believed that two of these three ratios could adequately capture the risk of default for a project. The remaining information, while of value in the analysis, was not considered to be vital to "risk rank" a project. To derive a total score for projects with incomplete data, FHA imputed their scores on the basis of the points assigned for known financial indicators. For example, a subsidized project that received 20 risk points for three financial indicators with a weight of 40 points would receive 50 percent of the points for each of the remaining, unknown risk indicators.

Table I.1: Performance Indicators Used in FHA's Fiscal Year 1993 Loan Loss Reserve Analysis

Indicator	Weight (points)	Formula
Operating cost coverage ratio	15	$\dfrac{\text{Total revenue}}{\text{Total revenue} \pm(\text{profit/loss} + \text{depreciation}) + \text{principal due} + \text{reserve for replacement deposit required}}$
Reserve for replacement per unit	15	$\dfrac{\text{Reserve for replacement account balance}}{\text{Total project units}}$
Current ratio	10	$\dfrac{\text{Current assets}}{\text{Current liabilities}}$
Vacancy rate	10	$\dfrac{\text{Vacancy rate}}{\text{Total rental revenue}}$
Subsidy rate	5	$\dfrac{\text{Tenant assistance payments} + \text{flexible subsidy payments[a]}}{\text{Total revenue}}$
Net income	5	$\dfrac{\text{Net profit/loss}}{\text{Total revenue}}$
Physical inspection	15	Based on evaluation summary
Management review	5	Based on evaluation summary

Note: Projects were scored on a scale of 80 rather than 100 points because FHA could not use 3-year trends in its analysis. FHA originally planned to allocate 20 points for 3-year trends.

[a]Flexible subsidy payments are FHA funds used to restore or maintain the physical and financial soundness of troubled projects.

FHA determined that 258 loans in its sample did not have the minimum data required for evaluation. These were put in an unranked category and dropped from the initial steps of the analysis because FHA could not determine their risk of default.

Default Risk Categories

FHA used the total points accumulated by each project to place it in one of five risk categories. The risk categories corresponded to the relative risk of default for the projects. Projects that compared favorably with FHA's standards for each of the risk factors accumulated few risk points and were therefore assigned to categories characterized as having little risk of default. Conversely, projects that generally did not compare favorably with FHA's standards accumulated more risk points and were assigned to categories that carried a greater risk of default. Table I.2 provides the risk categories and their cutoff points.

Table I.2: Fiscal Year 1993 Default Risk Categories

	Risk points	
Risk category	Unsubsidized[a]	Subsidized[a]
Excellent	0 - 15	0 - 16
Good	16 - 29	17 - 32
Standard	30 - 44	33 - 48
Substandard	45 - 59	49 - 65
Doubtful	60 - 75	66 - 80

[a]Projects were scored on a scale of 80 rather than 100 points because FHA was not able to include 3-year trends in its analysis. FHA originally planned to allocate 20 points for the 3-year trends. Unsubsidized projects were scored on a scale of 75 points because they could not be given a score for their subsidy per unit.

FHA described projects in the five risk categories as follows:

- Excellent—affords strong protection for FHA; is managed well and is in excellent condition; risk of default and risk of loss in the event of default appear remote.
- Good—presents an acceptable level of risk; is better than industry peers; risk of default and risk of loss in the event of default are considered remote.
- Standard—does not currently expose FHA to a substantial degree of risk but does have deficiencies or potential weaknesses that may expose FHA to an increased risk of loss in the future.
- Substandard—has identified weaknesses that jeopardize repayment under the current terms; risk of default and risk of loss seem reasonably possible to probable.
- Doubtful—has all the weaknesses inherent in a project classified as substandard but the weaknesses are more severe, increasing the likelihood of loss to FHA to a high level; intense vigilance by FHA required to minimize loss.

In assigning the projects to risk categories, FHA made adjustments for projects with distinct characteristics that warranted special consideration—loans on which borrowers had already defaulted or that lenders had elected to assign to FHA, new loans, and projects that were ranked as standard or better but had OCCRs below 0.95.[1] FHA determined that any loans on which borrowers had already defaulted or that lenders had decided to assign to FHA would initially be removed from the sample

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[1]The OCCR measures the ability of a project's revenues to cover the project's costs. An OCCR of 0.95 means that the revenues cannot meet the costs of the project.

and automatically ranked as doubtful, since default and loss were virtually assured. New endorsements were also removed from the sample and ranked as excellent, since, for new loans, default was not expected. Any project that had been ranked as standard or better but that had an OCCR of 0.95 or below was demoted to the doubtful category, since the low OCCR meant that the project did not generate sufficient revenues to cover its operating costs.

To characterize the risk of default for the projects in its sample, FHA reintroduced the 258 unrankable projects to the analysis. FHA assumed that the unrankable projects shared the same characteristics as the ranked projects and distributed the dollars associated with the unranked projects among the five categories according to the distribution of those that had been ranked.

Projecting the Results of the Sample to the Entire Multifamily Portfolio

After assigning the sample projects and their unpaid principal balances to the five risk categories, FHA projected the results of the sample to its multifamily portfolio. This was done program by program. Thus, for the sample, 19.45 percent of the unpaid principal balance in the section 207 program was ranked as good. FHA applied the 19.45 percent to the unpaid principal balance for the entire section 207 program, which was approximately $507.2 million, to conclude that approximately $98.6 million of the program's unpaid principal balance was good and posed virtually no risk of default. Table I.3 shows the distribution of FHA's multifamily portfolio (minus hospitals) among the five risk categories.

Table I.3: Distribution of the Multifamily Portfolio Among Five Risk Categories

Dollars in thousands

Risk category	Value	Percent of portfolio's unpaid principal balance
Doubtful	$ 4,547,763	11.52%
Substandard	10,388,661	26.32
Standard	8,140,585	20.63
Good	8,886,293	22.52
Excellent	7,503,480	19.01
Total	**$39,466,782**	**100.00%**

Calculating Expected Losses Using Default Assumptions

After distributing the unpaid principal balance for the entire multifamily portfolio among the five risk categories, FHA calculated the amount it would lose through defaults and, hence, the reserves it would need to cover these losses. FHA subjected the dollars in each of the five categories

to a set of assumptions that varied from one category to another. Specifically, FHA made assumptions about the following:

- Default potential—FHA assumed that the likelihood that borrowers would default on loans for projects in various categories would range from 100 percent of the projects in the doubtful to 0 percent of the projects in the good and excellent categories.
- First default—FHA assumed that borrowers would begin to default in the first year after the analysis regardless of category.
- Years of default—FHA assumed that the period of time during which borrowers would default would range from 4 to 6 years, depending on the project's category.
- Asset recovery rate—FHA assumed that it would recover an average of 24 percent of the unpaid principal balance for any project whose mortgagee defaulted regardless of the project's category.
- Years to recovery—FHA assumed that it would take 3 years after a mortgagee defaulted to recover any part of a project's unpaid principal balance.
- Cost of capital— For discounting purposes, FHA assumed that the cost of capital would be 7.0 percent annually.

Table I.4 displays the assumptions that FHA used to predict losses from defaults on multifamily properties. FHA's final estimate of losses from defaults on these properties was approximately $9.4 billion.[2]

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[2]This is in net present value terms. According to FHA's model, the "undiscounted" base reserve estimate is approximately $10.6 billion.

Table I.4: Assumptions Used to Determine Multifamily Base Loss Reserves

Input assumptions	Doubtful	Substandard	Standard	Good	Excellent
Default potential	100%	75%	20%	0%	0%
First default[a]	1	1	1	1	1
Years of default	4	5	6	3	3
Asset recovery rate	24%	24%	24%	24%	24%
Years to recovery	3	3	3	3	3
Cost of capital	7%	7%	7%	7%	7%

[a]The year in which the first default will occur. FHA's model treated fiscal year 1993 as year 0.

Loan Loss Reserves for Hospitals

To establish loan loss reserves for hospitals, FHA modified the methodology it used for the multifamily rental properties in its portfolio. As noted earlier, FHA, in consultation with HHS staff, identified 34 hospitals with the potential for default. HHS and FHA estimated the likelihood of default for each hospital, expressed as a percent, on the basis of their familiarity with the financial condition of each hospital. FHA then calculated the amount it could expect to lose in the event of default for any of the 34 hospitals. This amount was a standard 70 percent across all hospitals and was based on historical loss rates from prior defaults on hospital loans and sales. By combining the two numbers for each hospital, FHA estimated a combined loss rate. By applying the loss rate to the unpaid principal balance for each hospital, FHA determined the dollars for each hospital that could be considered at risk. By summing the at-risk unpaid principal balances for the 34 hospitals, FHA calculated the hospitals' total expected loss.[3] FHA then reduced this sum by 10 percent to roughly take into account the probability that defaults on loans for hospitals would occur within 5 to 10 years. FHA's final estimate of losses from defaults on hospital loans was approximately $402 million.[4]

Portfolio Loss Reserves

FHA established $505 million in portfolio reserves to cover four contingencies: (1) defaults on new loans, (2) defaults on loans for projects characterized as good or excellent, (3) unexpected natural disasters, and (4) administrative expenses associated with settling claims on defaults. FHA had ranked all new loans as excellent because it assumed that, for new

[3]For any given hospital, the dollars at risk from default are meaningless. This is not the amount FHA would lose if a default were to occur. However, when the dollars are summed for all hospitals, the result provides FHA with an estimate of potential losses across the portfolio.

[4]This is in net present value terms. According to FHA's model, the "undiscounted" loan loss reserve estimate for the hospitals portfolio is approximately $472 million.

loans, defaults would not occur. However, recognizing that defaults might occur on some of these loans, FHA estimated a required reserve of $135 million. Likewise, FHA recognized that defaults could also occur on loans for projects ranked as good or excellent, and it therefore estimated $170 million in reserves to cover losses from such defaults. FHA established reserves of $50 million to cover unforeseen losses from natural disasters, since these could not be taken into account in the analysis. FHA estimated that $200 million would be necessary to cover the expenses associated with settling claims from defaults. FHA felt that if its estimates of defaults were accurate, it would need increased staffing or contractor support to process the potential increase in claims during the coming years.

Resulting Total Reserve Estimate

Through its fiscal year 1993 analysis, FHA estimated that it would need approximately $10.3 billion in reserves to cover defaults on loans in its multifamily portfolio. As table I.5 shows, this amount consisted of the following elements:

Table I.5: Elements of Total Reserve Estimate

Dollars in billions

Reserves	Amount
Base loss reserves (excluding hospitals)	$9.4
Hospitals loss reserves	0.4
Portfolio loss reserves	0.5
Total	**$10.3**[a]

[a]This figure is in net present value terms. According to FHA's model, the "undiscounted" loan loss reserve estimate is approximately $11.6 billion.

Analysis of the Effect of Sampling Error on FHA's Loan Loss Reserve Estimate

To determine the effect of sampling error[1] on FHA's loan loss reserve estimate, we first estimated (1) the percent of the total unpaid principal balance[2] in each of the five risk categories used in the loan loss reserve analysis and (2) the sampling error associated with each of these estimates. We then tested the sensitivity of FHA's loan loss reserve to uncertainty about the exact percent of the unpaid principal balance that belonged in each risk category.

For each of the 12 housing programs whose loans FHA sampled, we used the sampled loans to estimate the percent of the total unpaid principal balance in each risk category.[3] We also developed an overall estimate of the percent of the unpaid principal balance in each risk category, using the September 30, 1993, unpaid principal balance of $34.6 billion that FHA used in its loan loss model. We calculated the sampling error for each of these estimates. On the basis of these estimates, provided in table II.1, we determined that there is uncertainty about the percent of the $34.6 billion unpaid principal balance that belongs in each risk category. Given sampling error, we estimate for example, that 5.28 ± 1.37 percent (or between 3.91 percent and 6.65 percent) of the $34.6 billion is in the doubtful category while 29.76 ± 3.32 percent (or between 26.44 percent and 33.08 percent) is in the substandard category.

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[1]When probability samples are used to make estimates, each estimate has a measurable precision or sampling error, which may be expressed as a plus/minus figure. A sampling error indicates how closely we can reproduce from a sample the results that we would obtain if we were to take a complete count of the universe using the same measurement methods. By adding the sampling error to and subtracting it from the estimate, we can develop upper and lower bounds for each estimate. This range is called a confidence interval. Sampling errors and confidence intervals are stated at a certain confidence level—in this case, 95 percent. For example, a confidence interval, at the 95-percent confidence level, means that in 95 out of 100 instances, the sampling procedure we used would produce a confidence interval containing the universe value we are estimating.

[2]The amounts used by FHA in its loan loss reserve analysis differ from those we derived using FHA's loss reserve data base. We found that our results agreed with FHA's until we made FHA's adjustment for the operating cost coverage ratio (see app. I). We asked FHA about the discrepancy. An official said that they had made their adjustment manually and could inadvertently have missed some sampled loans that should have been moved to the substandard category.

[3]As noted in appendix I, FHA's 1993 loan loss reserve analysis was based upon a sample of properties under 12 FHA multifamily housing programs. FHA's analysis also included coinsured properties and hospitals. Because FHA attempted to select all coinsured properties and all hospitals on whose loans defaults were likely, the latter two groups were not subject to sampling error.

Table II.1: Estimated Percent of Unpaid Principal Balance in Risk Category

Program	Unpaid principal balance[a]	Estimated percent of unpaid balance in risk category (sampling error in parentheses)				
		Doubtful	Substandard	Standard	Good	Excellent
207	$507	19.13 (25.35)	22.02 (25.41)	39.41 (26.76)	19.44 (18.96)	b
207 Conv.	$1,847	12.10 (9.37)	21.20 (11.14)	30.46 (14.77)	25.81 (12.49)	10.44 (10.87)
220	$1,212	1.81 (2.47)	13.16 (13.06)	20.67 (11.34)	27.52 (13.85)	36.85 (17.70)
221 Conv.	$727	9.36 (10.71)	74.46 (16.19)	13.03 (11.63)	3.15 (4.04)	b
207/ 223F	$2,603	2.24 (3.93)	30.72 (14.21)	22.11 (12.30)	32.09 (13.34)	12.84 (8.29)
221D4 MRKT	$15,601	4.64 (1.86)	25.81 (5.43)	21.99 (3.80)	27.89 (4.07)	19.68 (3.42)
221D3 MRKT	$2,182	0.42 (0.79)	26.79 (12.08)	21.97 (9.30)	31.33 (14.13)	19.49 (9.45)
221D3 BMIR	$823	b	60.21 (26.05)	24.39 (20.05)	15.39 (18.18)	b
231	$593	6.35 (11.58)	34.77 (23.12)	24.42 (21.82)	14.46 (12.73)	20.00 (16.82)
232	$3,095	7.45 (6.24)	17.30 (7.83)	23.58 (10.87)	24.26 (11.62)	27.41 (9.93)
236	$5,327	6.71 (3.40)	45.17 (7.74)	24.34 (6.55)	19.64 (5.86)	4.14 (2.23)
Other	$65	b	50.11 (43.53)	43.98 (41.82)	5.91 (11.71)	b
Total	**$34,583**	**5.28 (1.37)**	**29.76 (3.32)**	**23.11 (2.73)**	**25.49 (2.84)**	**16.36 (2.20)**

Note: The estimated percent of the unpaid balance in each risk category represents the estimate that GAO based on FHA's April 30, 1993, sample. The sampling error, shown in parentheses, represents GAO's estimate of the sampling error at the 95-percent confidence level.

[a]Dollars in millions as of September 30, 1993.

[b]None of the sampled loans fell into this category.

Using the estimates in the above table, we tested the sensitivity of FHA's loan loss reserve estimate to uncertainty about the exact percent of the unpaid principal balance that belonged in each risk category. We repeatedly calculated a loan loss reserve, varying the percent of the unpaid

principal balance falling into each risk category.[4] The average loan loss reserve estimate based on 10,000 repetitions was $7.35 billion.[5] After we eliminated the 250 (2.5 percent) lowest estimates and the 250 (2.5 percent) highest estimates, the remaining 95 percent of the estimates ranged between $6.68 billion and $8.02 billion. The difference of about $0.67 billion between (a) the $7.35 billion average estimate and the $6.68 billion optimistic estimate and (b) the $7.35 billion average and the $8.02 pessimistic estimate is a measure of the sensitivity of the estimate to sampling error in the estimated percents of the unpaid principal balance falling into each risk category.

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[4]We varied the percent of the unpaid principal balance falling into a risk category by generating random variates from a normal distribution whose mean and standard deviation were equal to the percents and standard errors estimated from the sample.

[5]As noted earlier, this estimate applies only to the 12 programs from which FHA drew its sample. The total loan loss reserve estimate of $10.3 billion includes, among other things, amounts for the coinsured and hospital portfolios that are not subject to sampling error.

Credit Subsidy Rates for Selected FHA Multifamily Mortgage Insurance Programs

Program	Subsidy rates
Risk-sharing arrangements with state and local housing finance agencies involving new construction [section 542(c)][a]	8.13% and 6.39%
Risk-sharing arrangements with state and local housing finance agencies involving existing projects [section 542(c)]	1.77%
Risk-sharing arrangements with government- sponsored enterprises or other qualified entities [section 542(b)]	1.77%
New construction or substantial rehabilitation of rental housing with for-profit borrowers [section 221(d)(4)]	12.68%
Acquisition or refinancing of existing rental properties [section 223(f)/207]	3.20%
New construction or substantial rehabilitation of cooperative or rental housing involving nonprofit borrowers [section 221(d)(3)]	29.84%
Insurance to cover operating losses for insured or HUD-held properties [section 223(d)]	29.84%
Sales of HUD-held mortgages	3.08%
Refinancing of insured loans [section 223(a)(7)]	3.08%

Note: The credit subsidy rates reflect the FHA mortgage insurance premium structure that was in place as of December 1994.
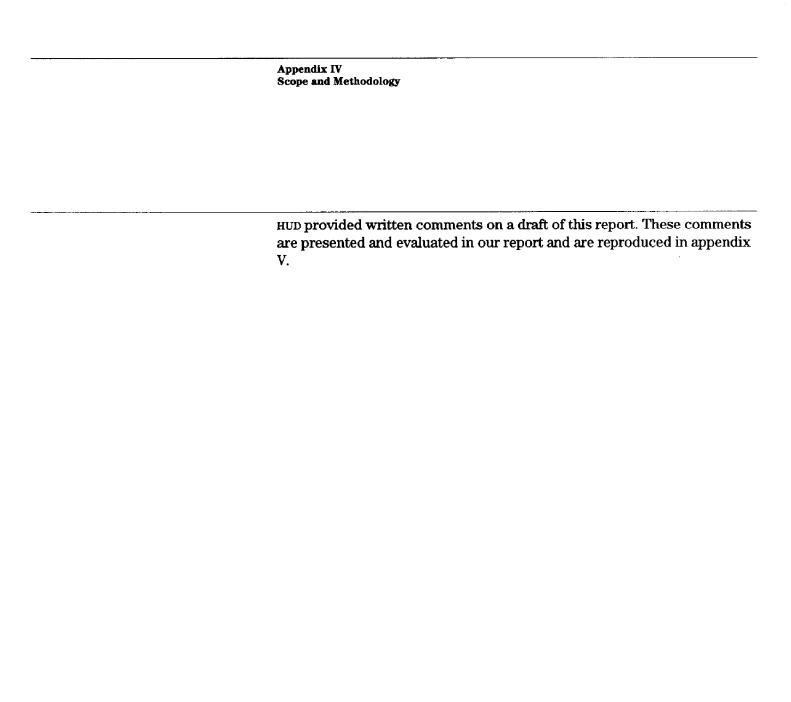
[a]The credit subsidy rate used depends on the amount of risk assumed by the housing finance agency.

Scope and Methodology

To evaluate the methodology FHA used to develop fiscal year 1993 loan loss reserves for its multifamily loan portfolio, we reviewed FHA's loan loss reserve analysis, as well as the examination of FHA's loan loss reserve methodology that Price Waterhouse conducted for its fiscal year 1993 FHA financial statement audit. We discussed FHA's loss reserve methodology with FHA officials, including the Deputy Assistant Secretary for Multifamily Housing Programs and the FHA Comptroller; senior officials with Price Waterhouse responsible for the FHA financial audit; and multifamily housing industry experts, including a senior vice president with the National Corporation for Housing Partnerships and the president of Recapitalization Advisors, Inc., a private company. We tested the sensitivity of FHA's estimate to adjustments in default assumptions and discussed the validity of these assumptions with officials from FHA and multifamily housing industry advisers. Additionally, to determine the effect on the loan loss reserve estimate of FHA's use of a sample, we performed a statistical analysis of FHA's sample and extrapolated the results to the multifamily portfolio. (See app. II for a detailed discussion of our analysis of the effect of sampling error on FHA's estimate.)

To determine the costs and benefits of requiring that new multifamily commitments be made on an actuarially sound basis, we discussed budgetary and programmatic issues with FHA officials, including the Deputy Assistant Secretary for Multifamily Housing Programs and the Director of the Office of Insured Multifamily Housing Development, as well as with officials from Price Waterhouse and the Congressional Budget Office.

To evaluate the Department of Housing and Urban Development's (HUD) initiatives for preventing defaults on multifamily housing loans, we discussed FHA's current initiatives for preventing defaults with FHA officials, such as the Deputy Assistant Secretary for Multifamily Housing Programs and the Director of the Office of Multifamily Housing Management, and with multifamily managers in the HUD's Jacksonville, Minneapolis, San Francisco, and Washington, D.C. field offices. We also discussed these initiatives with officials of other institutions that underwrite multifamily mortgages, including the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, and the National Housing Partnership.

HUD provided written comments on a draft of this report. These comments are presented and evaluated in our report and are reproduced in appendix V.

Comments From the Department of Housing and Urban Development

April 14, 1995

Ms. Judy A. England-Joseph
Director, Housing and Community
   Development Issues
United States General Accounting Office
Washington, DC   20548

RE: Proposed Report **HUD Management: FHA's Multifamily
      Loan Loss Reserves and Default Prevention Initiatives**

Dear Ms. England-Joseph:

   This is in reply to your letter dated March 2, 1995,
transmitting the referenced report for the Department's review
and comments.

Now on p. 5.

   Page 7 states: "Overall, we found that the reliability of
FHA's loan loss estimate is reduced by (1) data limitations; (2)
shortcomings in the way several default factors were used in the
analysis; and (3) subjective assumptions about default that are
not linked to historical data."   Page 7 also states that FHA's
$10.3 billion loss estimate may be higher or lower than actual by
more than a billion dollars.

   With respect to data limitations, the report points out that
because FHA used a sample instead of reviewing all insured loans
individually, it introduced imprecision or "sampling error" into
its estimate.   Your staff estimated that this imprecision could
cause the reserve needed to cover losses from multifamily
defaults to be as much as $670 million higher or lower than that
estimated by FHA for Fiscal Year 1993.

   We have no quarrel with GAO stating that the estimate may be
off by the above amount.   However, we believe that this degree of
error may always exist, no matter what the extent of the data
used and the sophistication of the forecasting techniques,
because this business does not lend itself to highly precise loss
estimates.   The uncontrollable events are many, and the time
frames are too long.   The implication is that the sample is not
adequate or an appropriate and recognized technique.   This is not
accurate and suggests that the methodology was flawed.

   Also, I would like to point out that the problem of not
having reliable financial data that led to FHA using a
sample for Fiscal Year 1993 has been overcome.   FHA now has
reliable financial data on over 95 percent of its insured
multifamily portfolio for 1994.   The choice to sample is an
independent decision and not an issue of available data in the
1994 calculation.

2

We believe that the shortcomings for Fiscal Year 1993, as described in your report and by Price Waterhouse, have been addressed in calculating the reserve estimate for Fiscal Year 1994, and FHA plans to make further improvements in its Fiscal Year 1995 methodology. For example, in calculating the reserves for Fiscal Year 1994, FHA used a different rating scale and methodology for rating the vacancy rate for subsidized vs. unsubsidized projects. Also, 64 percent of management reviews and 80 percent of physical inspection reports were available for the projects selected in the sample used in Fiscal Year 1994.

We do disagree, however, with the third factor GAO cites as reducing our loss estimate's reliability; namely, subjective assumptions about default that are not linked to historical data.

A trade-off is involved. While historical actual data is "objective," it may not be relevant to the future. So FHA chose relevant judgment-based data over objective nonrelevant data. If FHA had merely projected historical data without recognizing that today's conditions are unlike those that existed in the past, then FHA should have been criticized and also this would presume a much lower loan loss reserve for either we or Price Waterhouse thought appropriate.

In addition to the above, FHA plans to hire one of the large CPA Firms to review its present methodology and to recommend and develop an enhanced model for estimating the multifamily loss reserve for Fiscal Year 1995.

I would like to take this opportunity to thank you and your staff for this report, as well as the chance for the Department to comment prior to its release.

If you have any questions concerning the above comments, please contact Mr. Christopher Peterson, Acting Housing-FHA Comptroller, on (202) 708-1640 ext. 2700.

Sincerely,

Henry G. Cisneros

Major Contributors to This Report

Resources, Community, and Economic Development Division, Washington, D.C.	Jim Wells Richard A. Hale Christine M.B. Fishkin Cheryl L. Kramer Dennis G. Coleman Karen E. Bracey Patrick B. Doerning
Accounting and Information Management Division, Washington, D.C.	David G. Gill Laura B. Triggs James R. Hamilton

Related GAO Products

Multifamily Housing: Status of HUD's Multifamily Loan Portfolios (GAO/RCED-94-173FS, Apr. 12, 1994).

Multifamily Housing: Information on Selected Properties Owned by HUD (GAO/RCED-94-163FS, Apr. 11, 1994).

Multifamily Housing: Impediments to Disposition of Properties Owned by the Department of Housing and Urban Development (GAO/T-RCED-93-37, May 12, 1993).

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