Office of Federal Housing Enterprise Oversight

1996 ANNUAL REPORT TO CONGRESS

OFHEO
OFFICE OF FEDERAL HOUSING ENTERPRISE OVERSIGHT
1700 G STREET NW WASHINGTON DC 20552 (202) 414-3800

June 15, 1996

Honorable Alfonse D'Amato
Chairman
Committee on Banking,
Housing, and Urban Affairs
United States Senate
Washington, D.C. 20510-6075

Honorable Jim Leach
Chairman
Committee on Banking
and Financial Services
House of Representatives
Washington, D.C. 20515-6050

Dear Chairmen:

I am pleased to transmit the third Annual Report to Congress of the Office of Federal Housing Enterprise Oversight (OFHEO). This report has been prepared to meet the statutory requirements in section 1319B of the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (Title XIII of Pub. L. No. 102-550).

The views in this report are those of the Director and do not necessarily represent those of the President or the Secretary of Housing and Urban Development.

Sincerely,

Aida Alvarez,
Director

Message from the Director

"OFHEO protects the interests of the American taxpayer and contributes to the strength and vitality of the nation's housing finance system through independent, fair and effective financial regulation of Fannie Mae and Freddie Mac..."

The 12 months since the Office of Federal Housing Enterprise Oversight last reported to Congress has been a challenging period for both OFHEO and the nation's housing industry. Automation and economic pressures are forcing major changes in traditional practices of home mortgage lending, changes that affect buyers, builders, lenders and investors. In their role as prime movers of the secondary mortgage market, Fannie Mae and Freddie Mac have prompted, and may profit from, much of this change.

OFHEO has an important role in understanding, monitoring and regulating Fannie Mae and Freddie Mac's participation in this rapidly evolving economic and business climate. The financial safety and soundness of these two Enterprises is inextricably linked to the health and performance of the single-family mortgage lending industry. At the same time, the strong federal ties of Fannie Mae and Freddie Mac mean that the government, and ultimately the federal taxpayer, potentially have a large stake in the financial health of the Enterprises.

OFHEO's 1996 Annual Report to Congress outlines the dynamic relationships between the Enterprises, their business partners, and the government. It includes a separate analysis of the growing use of statistical scoring in rating both the creditworthiness of potential homeowners seeking mortgages and the credit risk of existing mortgages.

The report also describes in detail the work undertaken by OFHEO in carrying out the regulatory assignment summarized in the mission statement cited above. The contents of this Annual Report are evidence that OFHEO has remained well focused on its mission.

OFHEO took several significant steps in its oversight responsibility in the past 2 months:

- *In the area of examinations, OFHEO conducted Risk Management examinations of Fannie Mae and Freddie Mac focused on credit risk and interest rate risk. We also conducted a Flood Insurance Compliance Review. Results of these Examinations and Reviews are included in this Report.*

- *In the area of capital adequacy, OFHEO released for public comment a major portion of the rule that will set the stage for establishing risk-based capital levels for Fannie Mae and Freddie Mac. We also made important progress on work related to the remaining portion of the rule. Additionally, we anticipate publishing the final rule on minimum capital this summer. And we continued to evaluate capital adequacy of the Enterprises each quarter based on a minimum capital standard.*

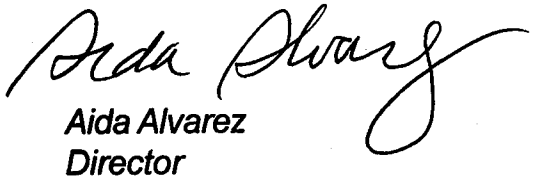
- *In March, OFHEO began publishing the quarterly House Price Index (HPI), a new government statistical index that tracks average changes in housing prices at the national, regional and state levels. The HPI is the government's most comprehensive measure for tracking changes in the value of American single-family homes.*

Additionally, OFHEO participated as a member of the United States delegation to the XIII U.S.-Mexico Binational Conference headed by Secretary of State Warren M. Christopher. The Binational Conference recognized technical advisory work performed by OFHEO in helping the government of Mexico lay the foundation for a secondary mortgage market in that country.

Looking ahead, I fully expect that in 1997, OFHEO will have developed, tested, and put forward for public comment, an operational risk-based capital stress test. This test will allow OFHEO to implement the risk-based capital requirement in a manner that reflects both the credit and interest rate stresses outlined in our legislation, and the risk-reduction strategies of the Enterprises.

OFHEO's record of achievement in its first three years is largely the result of the professional efforts of its talented and dedicated staff. Outside OFHEO, the support and counsel of Secretary Henry G. Cisneros has been especially valuable. The contributions of Members of Congress, and the senior staffs of the committees involved in OFHEO's regulatory mission, have been noteworthy.

I thank these dedicated people, and the many others who have contributed to OFHEO's mission in the belief that efficient, cost-effective, government regulation is an essential element of the housing finance system.



Aida Alvarez
Director
June 15, 1996

OFFICE OF FEDERAL HOUSING ENTERPRISE OVERSIGHT (OFHEO)

The **Office of Federal Housing Enterprise Oversight (OFHEO)** was established as an independent entity within the Department of Housing and Urban Development by the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (Title XIII of P.L. 102-550). The Office is headed by a Director appointed by the President for a five-year term. Aida Alvarez, OFHEO's first Director, was sworn in on June 1, 1993.

OFHEO's primary mission is ensuring the capital adequacy and financial safety and soundness of two government-sponsored enterprises — the **Federal National Mortgage Association (Fannie Mae)** and the **Federal Home Loan Mortgage Corporation (Freddie Mac).**

Fannie Mae and Freddie Mac are the nation's largest housing finance institutions. They buy mortgages from commercial banks, thrift institutions, mortgage banks, and other primary lenders, and either hold these mortgages in their own portfolios or package them into mortgage-backed securities for resale to investors. These secondary mortgage market operations play a major role in creating a ready supply of mortgage funds for American homebuyers. Combined assets and off-balance-sheet obligations of Fannie Mae and Freddie Mac were $1.4 trillion at the end of 1995.

Fannie Mae and Freddie Mac are Congressionally-chartered, publicly-owned corporations whose shares are listed on the New York Stock Exchange. Under terms of their federal charters, they are exempt from

state and local taxation, and from registration requirements and certain other securities law provisions of the Securities and Exchange Commission. Each firm also has direct access to U.S. Treasury funds at the discretion of the Treasury Secretary.

OFHEO's oversight responsibility includes:

- conducting broad-based examinations of Fannie Mae and Freddie Mac;
- developing a risk-based capital standard using a "stress test" that simulates adverse interest rate and credit risk scenarios;
- making quarterly findings of capital adequacy based on a minimum capital standard until the risk-based standard is completed;
- prohibiting excessive executive compensation;
- issuing regulations concerning capital and enforcement standards;
- taking necessary enforcement actions.

OFHEO is funded through assessments of Fannie Mae and Freddie Mac. OFHEO's operations represent no direct cost to the taxpayer.

In its safety and soundness mission, OFHEO has regulatory authority similar to other federal financial regulators such as the Federal Deposit Insurance Corporation, the Office of the Comptroller of the Currency, the Office of Thrift Supervision, and the Federal Reserve System.

(The legislation that established OFHEO also requires Fannie Mae and Freddie Mac to meet certain affordable housing goals set annually by the Secretary of Housing and Urban Development. These goals specify the share of mortgages that the two Enterprises are required to purchase annually from low-income, moderate-income and central-city homebuyers.)

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Chapter I

Major Trends in Single-Family Mortgage Lending

Major Trends in Single-Family Mortgage Lending

The single-family mortgage industry has undergone considerable structural change in the last 10 years. Financial institutions that make conventional home loans are increasingly operating in the manner of mortgage banks rather than as portfolio lenders. That is, they are selling a larger share of the mortgages that they originate to purchasers in the secondary market, and holding fewer mortgages in their own investment portfolios. Also, the largest lenders are giving more business to origination specialists such as mortgage brokers, or to smaller full-service lenders with which they have correspondent relationships.

In addition, industry profits have fluctuated sharply, a function of competitive pressures and broader economic forces tied to interest rate swings. Cost savings achieved through economies of scale and profit volatility have contributed to sweeping consolidation in both the origination and servicing sectors of the mortgage industry. This consolidation accelerated in the aftermath of the 1992-93 refinancing boom. Lastly, striking advances in information technology are continuing to reshape the origination market as lenders make use of new technologies, such as automated underwriting systems, to compete for business.

The operations of Fannie Mae and Freddie Mac (the Enterprises) have contributed in large measure to this evolving financial landscape. Recent trends hold potential benefits for the two Enterprises. Changing conditions also affect the operations and performance of the originators and servicers with which Fannie Mae and Freddie Mac do business. This poses challenges for the Enterprises, with attendant risks that must be managed.

The Office of Federal Housing Enterprise Oversight (OFHEO), as the financial safety and soundness regulator of these two Enterprises, has a three-fold task: to keep abreast of changes in the mortgage markets, to analyze how those changes affect the originators and servicers with which Fannie Mae and Freddie Mac do business, and to monitor how the Enterprises manage their risk exposure in this climate of rapid change.

The Evolving Role of Financial Institutions in Conventional Mortgage Lending

Originators Operate Increasingly as Mortgage Banks

Single-family mortgage lending includes four basic components — loan origination, funding, assumption of credit risk, and servicing (*see Box 1*). As recently as the late 1970s, the bulk of conventional single-family mortgage loans were made by thrift institutions, with commercial banks originating a lesser share. These depository institutions typically performed all four mortgage lending functions under one roof, but the maturing of the secondary mortgage market has altered this business pattern. Single-family mortgage lenders increasingly are confining their operations to origination and servicing. Long-term funding and the assumption of credit risk largely are provided by secondary market sources. Standardization of market practices, the increasingly sophisticated technology that underlies the securitization of mortgages in the secondary market, and the growth of Fannie Mae and Freddie Mac over the last 10 years are the three factors most responsible for this shift.[1]

Standardization of conventional mortgage origination and servicing practices, especially during the 1970s and 1980s, contributed to the growth of the secondary market. As Fannie Mae and Freddie Mac expanded their purchase and securitization activities, lenders increasingly adopted the Enterprises' documentation and market practices. Standardization has made the greatest impact in the market for conforming loans, which meet the underwriting guidelines of the Enterprises. Standardization also has had an increasing effect in non-conforming loan markets as securitization of those loans has accelerated. Standardization has reduced transaction costs and made it easier for mortgage lenders to access the secondary market. It has reduced the time that originators must

BOX 1: Components of Single-Family Mortgage Lending

Single-family mortgage lending has four components: **loan origination or production, funding, assumption of credit risk,** and **servicing or loan administration.** A financial institution may perform some or all of these functions for a particular loan.

Loan origination or production is the actual making of mortgage loans. It includes marketing to prospective borrowers, processing applications (ordering credit reports, appraisals or other property valuations, and title reports; and verifying borrower income, employment, and assets), underwriting applications, arranging for approved loans to be closed, and disbursing funds to borrowers. (Box 2 on page 15 discusses the different methods used to originate single-family mortgage loans).

Funding is the provision, either temporarily or permanently, of the funds to finance mortgage loans. A depository institution that buys mortgage loans (or obtains mortgage-backed securities in exchange for whole loans) funds them on a long-term basis through checking and savings accounts, certificates of deposit, and other depository products. Mortgage banks, which are not deposit-taking institutions, finance closed mortgage loans temporarily, usually with a warehouse line of credit from a commercial bank. (To mortgage bankers, *warehousing* is the provision of temporary funding for loans.) Mortgage banks then sell the loans in the secondary market. Purchasers in the secondary market include investors who finance their purchases by issuing debt, or intermediaries between lenders and investors, often called conduits, that pool loans and sell them in the form of mortgage-backed securities. Fannie Mae and Freddie Mac function as both investors and conduits.

Assumption of credit risk is the act of bearing the risk that loans will default. Different types of financial institutions assume the credit risk of conventional single-family mortgages. Private mortgage insurers assume a portion of the risk of loans that they insure, typically those with loan-to-value (LTV) ratios greater than 80%. Depository institutions bear some of the credit risk of conventional mortgages that they hold if the loans carry private mortgage insurance, and all of the risk if the loans are uninsured. Fannie Mae and Freddie Mac bear the credit risk associated with the uninsured portions of conventional mortgages that they hold in their investment portfolios or that serve as collateral for mortgage-backed securities they have guaranteed.

Servicing or loan administration is the management of the mortgage payment process for investors who are the ultimate holders of mortgage notes. Servicers collect monthly payments from borrowers, transfer principal and interest payments to investors, manage escrow accounts, and handle delinquencies and foreclosures.

hold closed loans in inventory and lowered the amount of capital that they need to hold. It also has facilitated the use of computer technology throughout the lending process, which, in turn, has encouraged greater standardization.

More broadly, securitization by Fannie Mae and Freddie Mac has opened the door to a wider variety of outside investors who provide mortgage financing without servicing loans or assuming credit risk, which is borne by the Enterprises. In the non-conforming market, securitization has led to the issuance of senior and subordinated securities. Investors who are willing to bear substantial credit risk purchase subordinated securities. Investors who prefer to assume little credit risk buy only senior securities.

Standardization, securitization, and competition in the primary and secondary markets also have helped reduce borrowing costs for the homebuyer. Since 1986, much of the economic benefit that Fannie Mae and Freddie Mac have received by virtue of their government sponsorship has been passed through to mortgage lenders, and then to borrowers, in the form of lower interest rates on conforming, fixed-rate mortgages (FRMs).[2] Additionally, the nationwide operations of Fannie Mae, Freddie Mac and other conduits have continued to moderate regional imbalances in mortgage capital that might otherwise occur. As such, the conduits have helped integrate regional markets for fixed-rate loans with national capital markets.[3]

One effect of these changes has been to greatly increase the liquidity of most mortgages, making it easier for lenders to split, or "unbundle", the four functions of the lending process. They also have made it easier for firms to specialize in specific mortgage functions, such as origination or servicing, where they enjoy expertise or

economic advantage. This trend toward specialization has been abetted by risk-based capital requirements for federally-insured depository institutions. These requirements impose a significantly lower capital cost on investments in mortgage-backed securities (MBS) than on investments in whole mortgage loans.

The expanded use of the secondary market by mortgage lenders does not, however, indicate a reduced role for depository institutions in conventional single-family lending. Many mortgage banks are subsidiaries or affiliates of depository institutions, especially commercial banks; a few of the larger mortgage banking firms are independently owned or affiliated with diversified industrial or financial services companies. Through their mortgage company affiliates, banks and thrifts function as originators and servicers, leaving the functions of assuming credit risk and permanent funding to the secondary market. Depository-affiliated mortgage banks offer a wide variety of fixed-rate and adjustable-rate mortgages (ARMs). The parent institutions tend to invest in ARMs, and in fixed-rate loans with balances that either exceed Fannie Mae's and Freddie Mac's purchase limits (jumbo loans) or that fail to meet the underwriting guidelines of the Enterprises (subprime loans). The mortgage company subsidiaries, meanwhile, tend to sell conforming FRMs to Fannie Mae and Freddie Mac.

Mortgage Bank Profits Become More Volatile

Mortgage banking is a fee-based business. Servicing has been a mortgage company's primary profit center, with most servicing income derived from fees or sales of servicing rights. The costs of originating loans generally exceed fees and related origination income. The Mortgage Bankers Association of America (MBA) estimated the average cost of originating a loan in 1994 by mortgage banks at $2,350, with origination fees and related income totaling $965, for a net loss of $1,385 per origination.[4] To maintain overall profitability, mortgage companies attempt to hold origination losses to a minimum while maximizing revenue from servicing (administration and payment collection), warehousing (funding closed loans temporarily), and secondary marketing activities (selling loans to permanent investors or intermediaries known as conduits).

General business conditions and interest rate movements influence the decision to buy a home, and the decision to refinance an existing mortgage. By extension, these same economic factors cause business volume, employment, and profits in the mortgage banking industry to fluctuate as well.

Industry competition, coupled with sharp interest rate swings, has increased the volatility of the profits of mortgage banks. On the origination side, falling interest rates produced large waves of refinancings in 1986 and again in 1992-93, spurring mortgage banks to add personnel and offices in order to increase production. When interest rates rose and loan demand fell in 1987-88, and again in 1994-95, many mortgage companies found themselves overextended and attempted to reduce staff and overhead quickly. The combination of high fixed costs and excess origination capacity led lenders to slash prices in an effort to cut losses while maintaining origination volume. The resulting price wars contributed to industry consolidation, with many smaller lenders dropping out of the business or merging with larger and stronger competitors.

On the servicing side, intense competition and increased efficiency have reduced average servicing fees. For servicers of Enterprise mortgages, the average fee for servicing fixed-rate loans has declined from 38 basis points in the 1980s to 25 basis points in recent years. Consistent with that decline, MBA survey data indicate that the average mortgage bank's servicing fee income, which reflects fees from servicing conventional and government-insured loans, fell from about 39 basis points of the volume of loans serviced in 1984-88 to about 30 basis points in 1993-94.[5] Moreover, the development of a secondary market for conventional loans, along with greater competition among lenders for refinance loans, has lowered the cost of refinancing. It also has produced more knowledgeable consumers, who have shown a willingness to refinance quickly when interest rate movements make the transaction cost-effective. This has heightened the prepayment risk borne by servicers.

The impact of prepayment risk on profitability was illustrated in the refinancing boom of 1992 and 1993, when borrowers prepaid a large proportion of the mortgages in servicing portfolios. The average mortgage bank recorded large write-downs of its servicing portfolio and much lower profits on its servicing operations in those years. At the same time, the average mortgage bank originated enough new mortgages, and purchased enough newly-created servicing rights, to grow its overall servicing portfolio.

Fluctuations in net origination losses and servicing profits have made the operating profits of mortgage banks more volatile in the last decade. MBA survey data indicate that the average firm's profit margin (excluding gains on sales of servicing rights), was about 1% of revenue in 1987. This profit figure rose steadily to about 16% in 1991, and then declined to about negative 3% in 1994.[6] Mortgage companies have resorted to sales of servicing rights, which produce current gains but reduce future fee income and profits, to maintain overall profits at more consistent levels.

Recent Accounting Changes Heighten Awareness of Profit Volatility

Awareness of the volatility of mortgage bank profits has been heightened by the Financial Accounting Standards Board's (FASB) Financial Accounting Standard (FAS) No. 122 (Accounting for Mortgage Servicing Rights), issued in May 1995 and effective in fiscal years beginning after December 15, 1995. FAS 122 equalizes the accounting treatment of servicing rights purchased from other firms and servicing rights created when originators sell loans. The new standard requires mortgage companies to record both purchased and originated servicing rights as assets on the balance sheet and to record changes in the economic value of those assets on the income statement. Previously, only purchased servicing rights were recorded as assets. This gave companies an incentive to sell originated servicing rights whenever they needed to recognize the value of those unbooked assets. The new accounting rule makes explicit all the interest rate risk associated with servicing portfolios. By rendering explicit a cost that some previously had borne only implicitly, it also forces mortgage banks to confront how they manage and hedge this risk.

Securitization of Servicing Fees Carries Benefits and Risks

Fannie Mae and Freddie Mac recently announced that they are developing initiatives to allow mortgage banks to limit substantially the interest rate risk exposure associated with servicing loans for the Enterprises. Under the initiatives, Fannie Mae and Freddie Mac would permit servicers to retain servicing fees that are less than current average fees of about 25 basis points for servicing fixed-rate loans and 38 basis points for servicing ARMs. Servicing fees potentially could be as low as zero. By not retaining the fees, lenders could create MBS with higher coupon rates relative to the rates on the underlying loans. Thus, the companies effectively would "securitize" the future servicing fee income generated when the servicing rights were created, converting it to cash and shifting prepayment risk associated with the fee income to MBS investors.

Securitization of servicing fees would allow servicers to reduce substantially the volatility of their balance sheets and earnings. Uncertainty remains about the level of demand for the initiatives. Some investors are concerned that servicers might have an incentive to encourage borrowers to prepay loans so that the servicers could generate and sell new servicing fee income. Such investors, therefore, might require somewhat higher coupon rates on MBS created through the new transactions to compensate for the risk that borrowers might prepay their loans more rapidly when interest rates fall. The prices that Fannie Mae and Freddie Mac might charge for the transactions are also unknown. If securitizing servicing fees proves to be significantly less costly than retaining the fees and hedging the prepayment risk, the new initiatives could make servicing a more attractive line of business.

While benefiting servicers, securitization of servicing fees would pose risks that Fannie Mae and Freddie Mac would have to manage. The Enterprises have a substantial economic interest in assuring that servicers meet their obligations. Each Enterprise has the contractual authority to revoke all servicing from a company that fails to perform in accordance with its guidelines. By requiring that servicers retain minimum fees, Fannie Mae and Freddie Mac ensure that a substantial positive cash flow is available to enhance the value of servicing rights. This cash flow protects the Enterprises against incurring losses when servicers do not perform satisfactorily and the Enterprises must exercise their right to transfer servicing to other companies. Examples of unsatisfactory servicer performance include failure to maintain adequate capitalization, manage delinquencies satisfactorily, or pursue foreclosure alternatives efficiently. The new initiatives will have to provide for equivalent protection against losses by measures such as requiring servicers to maintain higher credit ratings, post collateral, or obtain surety bonds. OFHEO will monitor the development of these initiatives to assure that the risks are managed appropriately.

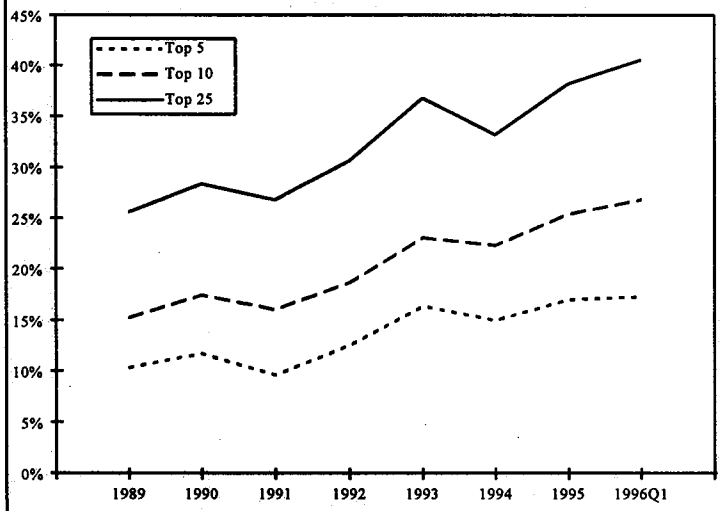
Consolidation in the Origination and Servicing Markets

Top Originators and Servicers Increase Market Share and Size

Although many thousands of firms originate and service single-family mortgages, the largest firms have significant shares of both lending functions. According to first quarter 1996 data collected by *Inside Mortgage Finance*, the largest originator of single-family mortgages had a market share of 5.4%, and the top 25 originators (out of approximately 9,700 firms) originated nearly 41% of all loans. At the end of the first quarter of 1996, the principal balances of single-family mortgages serviced by the largest servicer equaled 3.7% of outstanding loans, while the top 25 servicers (out of at least 2,700 firms) serviced over 40% of outstanding loans.[7]

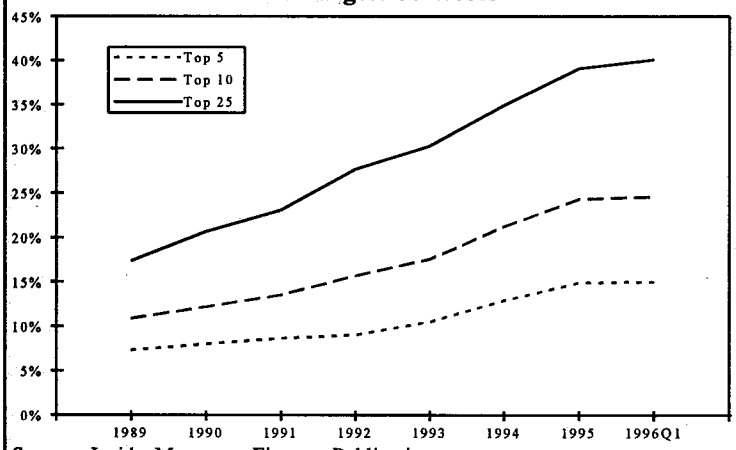
The degree of concentration among single-family mortgage originators and servicers has increased in recent years. The market share of the top 25 originators rose by over 50% between 1989 and the first quarter of 1996 (*see Figure 1*), while the share of mortgage servicing rights owned by the top 25 firms more than doubled in the same period (*see Figure 2*). Increasing concentration has been accompanied by rapid growth in the size of the largest firms, especially in servicing. Mortgage volume produced by the largest originator rose nearly three-fold from 1989 through 1995. To break the ranks of the top 25 originators, the volume of loans a lender had to produce rose from $2.3 billion in loans in 1989 to $4.1 billion in 1995. Concentration of servicing has increased similarly. The portfolio of the largest mortgage servicer in the country has doubled since 1989. The servicing portfolio that a lender needed to rank among the top 25 servicers jumped five-fold during the same period.[8]

Figure 1
Percent of Single-Family Mortgages Originated by the Top Originators



Source: Inside Mortgage Finance Publications

Figure 2
Percent of Single-Family Mortgages Outstanding Serviced by the Largest Servicers



Source: Inside Mortgage Finance Publications

The pace of consolidation has picked up since the last refinancing boom ended in the first quarter of 1994, as dozens of mortgage companies have merged with other firms, been bought out, or left mortgage banking entirely. The most highly publicized deals have been the largest — Norwest Mortgage Inc.'s purchase of most of Prudential Home Mortgage Co., and the merger of the mortgage banking subsidiaries of Chase Manhattan and Chemical Bank. Many medium-sized firms, some with servicing portfolios in excess of $10 billion, have sold their portfolios or their whole operations. SMR Research Corp. estimates that about 20 of the largest 70 lenders have been involved in at least 50 major mergers or acquisitions in the last two years. In nearly every case, the acquiring entity was affiliated with a depository institution, almost always a commercial bank.[9] Contributing to some of the commercial bank acquisitions has been the perception that bank-related companies have significant competitive advantages, including expertise in hedging interest rate risk, the

capacity to offer a wide range of mortgage products, and an ability to cross-sell other products to mortgage borrowers. This perception is not universal, however, since many of the acquired institutions have been bank affiliates.

Economies of Scale and Earnings Volatility Drive Consolidation

Behind the consolidation in mortgage banking have been economies of scale and the level of earnings volatility and risk in the industry today. Scale economies have been most evident in servicing, where some of the largest mortgage servicers have made substantial investments in technology. Investments include computer systems to track and process payments from hundreds of thousands of borrowers, automated telephone systems to handle customer inquiries and contact delinquent borrowers, and imaging systems to process and store the large volume of documents used in mortgage lending. Such systems allow mortgage companies to reduce personnel and other operating expenses on each loan serviced, and to increase the volume of mortgages serviced per employee. The latter is particularly important for firms that specialize in servicing standardized products such as conforming fixed-rate loans.

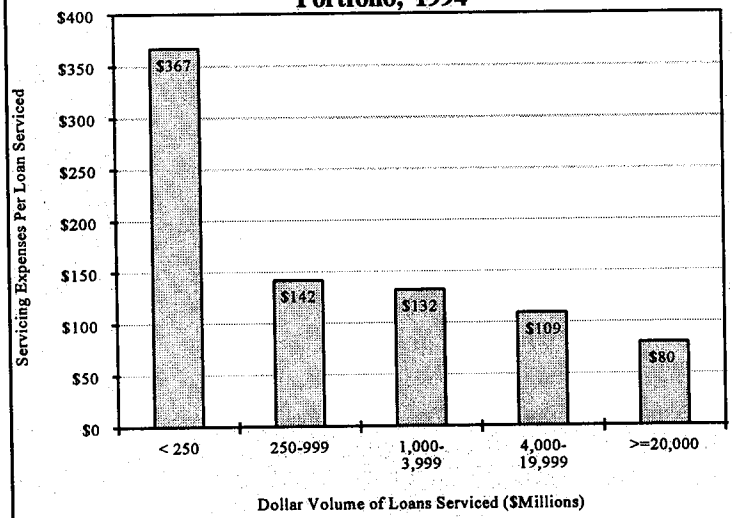
A recent econometric study by Office of Thrift Supervision staff using data collected by the MBA from mortgage banks in business in 1990-92 found that scale economies throughout the industry increase with a firm's loan production and servicing portfolio.[10] The MBA's survey of mortgage bank performance in 1994 found that as the size of a lender's servicing portfolio increased, the firm's costs per loan serviced declined *(see Figure 3)*.[11] Servicing income (excluding gains from sales of servicing) also declined as portfolio size increased, but generally by less than servicing expenses. The smallest servicers incurred higher expenses and earned higher fees from specializing in troubled loans and subservicing for other firms. Larger portfolios were associated with larger percentages of purchased servicing rights and, generally, with greater numbers of loans serviced per employee.

Some firms may have achieved economies of scale in other aspects of mortgage banking. An unpublished study by Wholesale Access, a consulting firm, found that lenders that originated more than $5 billion in loans a year had lower secondary marketing costs per loan sold. Large firms also may be able to attain scale economies in managing and hedging the interest rate risk associated with their pipelines of loan applications and servicing portfolios, in warehousing closed loans prior to sale, and in selling loans to the secondary market.

The level of earnings volatility in mortgage banking has also contributed to the consolidation trend in the industry. Some firms have decided that returns associated with economies of scale and large volumes do not compensate for the risk associated with the business, especially in the current period of rapid consolidation and change.

Mergers and acquisitions of mortgage banks and sales of servicing portfolios have produced a substantial increase in the turnover of servicing rights in recent years. According to *Inside Mortgage Finance*, sales of rights to service mortgages owned by Fannie Mae and Freddie Mac increased from 13% of their outstanding portfolios in 1991 to 23% in 1994. The trend reversed itself in 1995, however, as turnover of servicing rights declined slightly to 21% of the Enterprises' portfolios.[12] Many observers had expected a larger decline in the volume of servicing transfers in 1995, because FAS 122 reduced incentives to sell originated servicing rights. Servicing

Figure 3
Servicing Costs Per Loan Serviced by Size of Servicing Portfolio, 1994[1]



Source: Mortgage Bankers Assoc., *1994 Cost Study*

[1] Total direct expenses plus provision for loan losses. Excludes amortized cost of purchased servicing.

transfers due to industry consolidation appear to have remained strong enough to offset to a large degree the effect of the accounting change.

Consolidation Carries Potential Benefits and Challenges for the Enterprises

Consolidation in mortgage banking may benefit Fannie Mae and Freddie Mac. Large, well-capitalized firms that have technology and management expertise likely will improve their origination and servicing practices. Many such lenders will use statistical scoring to reengineer their credit risk management (*discussed in Chapter II*), thereby improving the quality of the loans they produce and service as well as minimizing credit losses.

But industry consolidation also poses certain challenges to the industry and the Enterprises. There is uncertainty, in the event of a national economic downturn, about the performance of the very large, national portfolios created in recent years. Some large servicers have sought to cut expenses by centralizing operations in a single national servicing center or a few regional ones. In a national recession, such servicers may find it more costly than anticipated to manage geographically dispersed delinquencies. Also, current servicing portfolios include a significant proportion of recently originated mortgages with high initial loan-to-value (LTV) ratios, as well as loans made as part of fairly new community lending programs that permit variances from normal underwriting guidelines. In an economic downturn, servicers might find that managing delinquencies on those loans costs more than expected. On the other hand, the very large, nationally diversified portfolios created in recent years could perform better than anticipated.

Consolidation also may have implications for the guarantee fee income earned by Fannie Mae and Freddie Mac. The Enterprises give a degree of favorable treatment to larger originators in the form of lower guarantee fees and waivers of some underwriting guidelines. This enables Fannie Mae and Freddie Mac to reduce marketing costs while maintaining market share.[13] Consolidation in the origination market may, in combination with favorable pricing for large originators, tend to reduce overall guarantee fee income. This could increase competition between the Enterprises for high-quality loans and accelerate their use of scoring technology to reengineer their credit risk management.

Increase in Third-Party Originations

Originators Become More Specialized

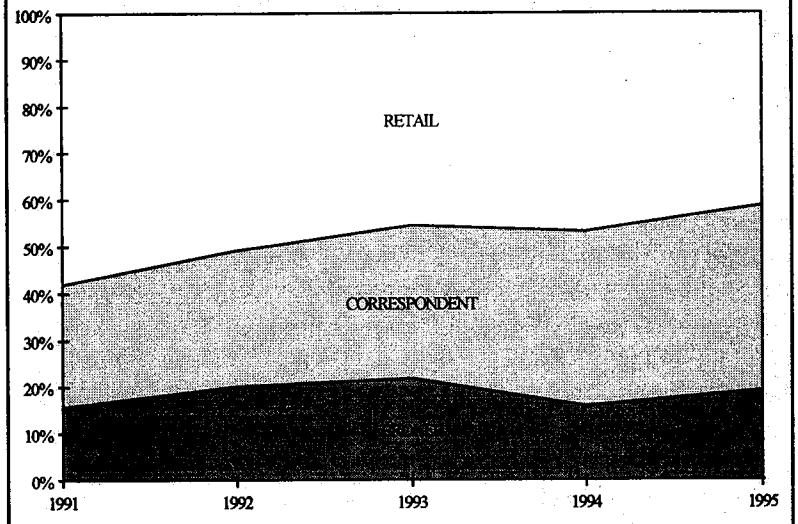
The last decade has also seen a higher level of specialization emerge on the origination side of mortgage banking. Today, a few hundred large lenders function as wholesalers, using origination specialists called mortgage brokers or smaller lenders known as correspondents to perform some or all of the origination functions. *(Box 2 summarizes the differences between retail and wholesale lending.)* Mortgage brokers and correspondents are often referred to as third-party originators, and mortgages originated by wholesalers with their help often are called third-party originations.

Wholesale lending became a major source of loan production in the second half of the 1980s.[14] Large lenders found it economical to use mortgage brokers to solicit applications and do most of the processing, and to establish relationships with correspondent lenders to deliver closed loans. When interest rates fell, wholesalers could expand their operations quickly without incurring the high fixed costs associated with retail branch office networks. This division of labor allowed wholesalers to match their costs and revenues more closely as interest rates and loan origination volume fluctuated and also gave them maximum flexibility to enter and exit local markets. Wholesalers specialize in tasks that can be centralized and automated and have potential economies of scale—underwriting, managing interest rate risk associated with a pipeline of loan applications and with warehousing closed loans prior to sale, and selling loans in the secondary market. Brokers and correspondents specialize in tasks where economies of scale are negligible and local contacts are important — marketing to borrowers and closing loans.

In recent years, lenders that have originated the largest volume of mortgages have relied on brokers and correspondents to help them originate an increasing proportion of the loans they have produced. According to data collected by SMR Research Corp., third-party originations rose from 42% of the loan production of the top 25 originators in 1991 to 59% of that group's originations in 1995 *(see Figure 4)*.[15] Data collected by *Inside Mortgage Finance* on the production of the top 30 originators

reveal a similar trend. SMR Research indicates that during the 1992-93 refinancing boom, third-party originations accounted for nearly two-thirds of the $220 billion increase in the production of the top 25 originators. The largest wholesalers used their relationships with mortgage brokers and correspondents to produce refinance loans during that period. The huge jump in their wholesale originations was an important factor enabling the largest originators to increase their market share during the refinancing boom.[16]

Figure 4
Single-Family Originations of the Top 25 Originators by Production Channel



Source: SMR Research Corp.

Benefits and Costs of Using Third-Party Originators

Wholesalers use brokers and correspondents because doing so reduces the net losses they incur when making loans. Industry data indicate that mortgage banks that function predominantly as wholesalers have lower net origination losses than companies that emphasize retail production. MBA survey data indicate that mortgage companies that used brokers or correspondents to originate at least half of their production in 1994 had pre-tax losses of about $440 per loan origination, while firms that purchased less than half of the loans they originated had pre-tax losses of $1,140 per loan.[17] The firms that utilized brokers and correspondents to produce at least half of their loans had lower origination expenses,

BOX 2: Methods of Originating Single-Family Mortgages

There are two methods of originating single-family mortgage loans — retail lending and wholesale lending. In **retail lending**, a mortgage lender performs all of the tasks involved in originating loans (*see Box 1 on page 9*). Retail lenders may operate as portfolio lenders — lending institutions that hold mortgages as investments — or as mortgage banks.

In **wholesale lending**, two or more firms are involved in the origination process. **Mortgage brokers** are originators who introduce prospective borrowers to lenders who operate as **wholesalers**. Brokers generally perform most of the application processing. Wholesalers complete any remaining processing, underwrite the applications, and generally provide funds that brokers need to close approved loans. As compensation for their services, brokers receive the origination fees paid by borrowers and may earn additional fees from wholesalers. Wholesalers may operate as portfolio lenders or mortgage banks.

A wholesaler may also purchase a closed loan from a **correspondent lender** after the latter has completed the loan origination process. A correspondent is usually a smaller lender, often a community bank or thrift, that has the funds and capacity to close loans in its own name, but cannot or does not want to service all of the loans it makes. Correspondents typically cannot manage as economically as wholesalers the interest rate risk posed by warehousing loans and selling them in the secondary market. Correspondents may commission mortgage brokers to perform some loan processing tasks. By dealing with a number of wholesalers, mortgage brokers and correspondents can assure themselves of a complete line of loan products and competitive prices at all times.

The National Association of Mortgage Brokers (NAMB) estimates there were approximately 15,000 mortgage brokers in business at the end of 1995. According to Wholesale Access, a consulting firm that tracks the wholesale market, in early 1996 there were about 400 active wholesalers, with the top 100 originating about 75% of wholesale production.

principally in the areas of personnel and occupancy costs. Firms that emphasized wholesale business also earned lower origination fees and related income, reflecting the compensation that brokers and correspondents received for their services. The savings in origination expenses achieved by the more wholesale-oriented firms were greater than the reduction in their origination income, producing lower net origination losses.

These data do not reflect the indirect costs of using brokers and correspondents and, therefore, the net benefits of third-party originations.[18] A wholesaler bears the risk that mortgages originated by third parties may be of lower credit quality than loans made by its own employees and must have a quality control program to manage this risk. Quality control programs are more expensive for wholesale production than for retail because lenders must examine larger samples of loans in order to evaluate adequately the performance of all third-party originators. If a lender's third-party originations default more frequently than loans originated through the retail channel, it will incur higher delinquency expenses and must make larger loss provisions. Although the lender generally will allocate quality control and credit losses to its servicing operations, they are indirect costs of the wholesale methods of loan origination.

Wholesalers also bear the risk that if interest rates decline during the origination process, brokers may help prospective borrowers submit applications to other lenders. This may increase the overall cost of funding the wholesaler's application pipeline. Further, when interest rates decline, brokered loans may prepay more rapidly if brokers have no loyalty to wholesalers and help borrowers refinance their loans with other lenders. The expenses associated with hedging and managing these risks are additional indirect costs of using third-party originators.

The Enterprises Take Steps to Manage Additional Risk

As investors in single-family mortgages originated through brokers and correspondents, Fannie Mae and Freddie Mac bear a portion of any difference between default losses on such loans and losses on loans produced through the retail origination channel. As noted publicly in 1995 by executives from both Enterprises, third-party originations purchased and securitized by Fannie Mae and Freddie Mac have had higher delinquency rates than retail loans.[19] A possible explanation for this difference in delinquency rates is that brokers and correspondents, which are acting on behalf of wholesalers, have less incentive than retail lenders to ensure that appraisals are of high quality and that the documentation of applicants' employment, income, and assets is accurate. Reducing this difference in performance going forward is an important risk management issue for the Enterprises and for lenders who sell loans to them.

Fannie Mae and Freddie Mac each have taken steps to manage the additional credit risk posed by third-party originations. In 1991, Freddie Mac began purchasing third-party originated mortgages strictly on a negotiated basis. In 1993, Freddie Mac published guidelines for managing its wholesale/broker and correspondent production, and resumed purchasing third-party originations on a non-negotiated basis. In 1995, Freddie Mac published guidelines for originators that want to serve as mortgage brokers or correspondents for wholesalers that sell loans to the Enterprise. In 1992, Fannie Mae required lenders to identify mortgages that were originated with the help of third parties. In May 1996, Fannie Mae expanded its requirement to include identifying loans originated through mortgage brokers or correspondents.

Growing Competition for Borrowers

New Technologies Facilitate Lending at Point of Sale

As the largest mortgage banks have grown and invested more heavily in technology, they have improved the efficiency of their servicing operations. Sophisticated lenders tend to view technology investment as an integral part of their business strategy, not just as an opportunity to cut operating costs. The change in lenders' perception of technology, plus the availability of flexible on-line systems, have shifted the focus of competition toward improving customer service and expanding market share through lending at the point of sale, where borrowers shop for and decide to buy homes.[20]

Many large and medium-sized originators have made a commitment to point-of-sale lending and the investment in technology and reengineering of their business processes that it requires. A variety of technologies now give lenders the ability to make lending decisions in the field; to significantly reduce the time between loan

application and closing for the most creditworthy borrowers; and to integrate information flows from the point of sale through secondary marketing and servicing. Lenders can give loan officers lap-top computers or install personal computers in retail branches and the offices of real estate brokers, mortgage brokers, homebuilders, and correspondents. These computers can be equipped with on-line or video-conferencing systems and communications links. This allows originators and others working directly with prospective borrowers to review loan programs, submit loan applications for automated underwriting, and determine the conditions borrowers must meet for approved loans to be closed.

When applications are submitted, automated underwriting systems can order borrower credit reports and use scoring technology and underwriting rules to evaluate loan credit risk. Lenders can direct their systems to designate some loans for streamlined processing (borrowers provide limited verification documents and a full-blown appraisal may not be required), designate others for regular processing, and refer others for further evaluation by a human underwriter. Data on closed loans can be transferred to lenders' secondary marketing and servicing systems. As the industry's use of uniform data and data transmission standards increases, lenders will be able to expand the volume of transactions they conduct via electronic data interchange (EDI) and through electronic networks, which will facilitate point-of-sale lending.

BOX 3: The Enterprises' Automated Underwriting Systems

Freddie Mac and Fannie Mae launched on-line automated underwriting systems in 1995. Freddie Mac released its system, *Loan Prospector*, in February. Fannie Mae's system, *Desktop Underwriter*, was released in April. Lenders approved to use either system can submit loan application data in electronic form to Fannie Mae or Freddie Mac. On receipt of an application, the Enterprise quickly indicates whether it is willing to purchase the loan and, if not, provides feedback that the lender can use to evaluate the application further.

Freddie Mac's *Loan Prospector* uses a mortgage scoring model and underwriting rules to evaluate loans. The system includes an optional collateral assessment feature that provides a decision on the adequacy of the property to serve as collateral for the mortgage. Freddie Mac upgraded the system during 1995 by making refinance loans and low-risk purchase loans eligible for streamlined processing, allowing exterior home inspections rather than full appraisals on low-risk loans, and adding the capability to underwrite affordable housing loans. The Enterprise says it will incorporate underwriting of government-insured mortgages into *Loan Prospector*.

In October 1995, Freddie Mac began a joint venture with Standard and Poor's Corporation and several conduits. It allows lenders that use *Loan Prospector* to obtain secondary market pricing and arrange for the sale of jumbo loans or subprime loans.

Freddie Mac reports that by mid-April 1996, more than 220 lenders had signed up to use *Loan Prospector*, and that roughly 7% of the single-family mortgages it purchases or securitizes are flowing through the automated system. Freddie Mac predicts *Loan Prospector* volume will reach about 20% of the Enterprise's total single-family purchases by the end of 1996.

Fannie Mae's *Desktop Underwriter* initially relied on the firm's underwriting rules to evaluate loan applications. In June 1995, the Enterprise upgraded the system to make refinance loans eligible for streamlined processing. In January 1996, Fannie Mae added a credit scoring component. Other refinements added at that time were streamlined processing for low-risk purchase loans, designation of low-risk loans for streamlined appraisals, and a reduction in the amount of data that the system needs to evaluate applications. Fannie Mae says it will incorporate underwriting of affordable lending mortgages and government-insured mortgages into *Desktop Underwriter*. The latter capability will be provided through an interface with the *pmiAURA* system developed by PMI Mortgage Services, Co.

Fannie Mae reports that as of mid-March 1996, 100 lenders had committed to using *Desktop Underwriter*. The Enterprise has not released information on the volume of loans processed through the system.

Numerous Automated Underwriting Systems Are Being Used

The introduction and development of Freddie Mac's *Loan Prospector* and Fannie Mae's *Desktop Underwriter (see Box 3)* have heightened the industry's awareness of the potential for increasing customer service and expanding market share by deploying automated underwriting systems at the point of sale. The Enterprises' automated systems carry the potential to improve loan credit quality by making underwriting decisions more consistent, improving the data used in underwriting, and making it easier to adjust underwriting in response to changes in market conditions.

The automated underwriting systems developed by Fannie Mae and Freddie Mac have proved influential but still face competition from other systems. Some of the largest mortgage lenders use automated systems they have developed themselves, or systems they have purchased. Some large lenders say they want a single system for underwriting all types of mortgages, as well as the flexibility to tailor a system's use of scoring and underwriting rules to suit their particular risk preferences and the requirements of a variety of investors. For example, the *pmiAURA* system developed by PMI Mortgage Services, Co., an affiliate of PMI Mortgage Insurance Co., is being used by five of the ten largest originators: Norwest Mortgage, Fleet Mortgage Group, Chemical Residential Mortgage, NationsBanc Mortgage, and Homeside Inc. Chapter II discusses the potential additional benefits of using statistical scoring, which each Enterprise has incorporated into its system.

OFHEO's Perspective on Structural Change in the Industry

The safety and soundness of Fannie Mae and Freddie Mac is intimately related to the financial condition and performance of the rest of the single-family mortgage lending industry. On one hand, their unique ties to the government make the Enterprises dominant firms that greatly influence the industry's structure. On the other hand, broader economic forces—movements in interest rates, technological change, and the evolution of financial markets—affect the operations and performance of the originators and servicers with which Fannie Mae and Freddie Mac do business.

In order to manage the credit risk of the loans they buy and to limit their losses on delinquent loans, Fannie Mae and Freddie Mac must actively manage their relationships with their business partners. To do so, the Enterprises issue guidelines that require sellers and servicers to maintain financial strength and meet performance requirements, and use audits and quality control programs to monitor compliance with their guidelines. As changes in the industry occur, Fannie Mae and Freddie Mac address emerging risk management issues through their contacts with sellers and servicers and, when necessary, through changes in their guidelines.

OFHEO takes into account the complex relationships between the Enterprises and their business partners in assessing the financial safety and soundness of Fannie Mae and Freddie Mac. OFHEO monitors structural changes in the industry, analyzes how those changes affect the firms with which the Enterprises do business, and monitors how Fannie Mae and Freddie Mac are managing their relationships with their business partners as the industry evolves.

[1] For more extended discussions, see James R. Follain and Peter M. Zorn, "The Unbundling of Residential Mortgage Finance," *Journal of Housing Research*, vol. I, no. 1 (1990), pp. 63-89; and Mitchell Stengel, "From Traditional Mortgage Lending to Modern Mortgage Banking," Office of the Comptroller of the Currency *Quarterly Journal* (December 1995), pp. 11-18.

[2] Robert F. Cotterman and James E. Pearce, "The Effects of the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation on Conventional Fixed-Rate Mortgage Yields," in Office of Policy Development and Research, Department of Housing and Urban Development, *Studies on Privatizing Fannie Mae and Freddie Mac* (May 1996), pp. 97-168; Congressional Budget Office, *Privatizing Fannie Mae and Freddie Mac* (May 1996), Chapter 2; and General Accounting Office, *Housing Enterprises: Potential Impacts of Severing Government Sponsorship* (May 1996).

[3] Patric H. Hendershott and Robert Van Order, "Integration of Mortgage and Capital Markets and the Accumulation of Residential Capital," *Regional Science and Urban Economics* (May 1989), pp. 188-210; and Rebecca Meyer, "Regional Rate Differences Narrow Dramatically," *Freddie Mac Reports* (September 1987), p. 5.

[4] Mortgage Bankers Assoc. of America, *1994 Cost Study: Income and Cost for Origination and Servicing of 1- to 4-Unit Residential Loans* (1995), p. 8.

[5] Mortgage Bankers Assoc. of America, *Cost Studies* (1985-95).

[6] *Ibid.*

[7] Inside Mortgage Finance Publications, *The Mortgage Market Statistical Annual for 1996* (Washington, DC: 1996), pp. 53-71; "Top 30 Mortgage Originators in 1996," *Inside Mortgage Finance* (April 19,1996), p. 4; and "Top 30 Mortgage Servicers in 1996," *Inside Mortgage Finance* (April 26,1996), p. 4. The estimates of the total number of originators and servicers are developed in Stengel, *op.cit.*

[8] *Ibid.*

[9] SMR Research Corp., *Giants of the Mortgage Industry: 1996 Outlook* (Budd Lake, NJ: 1996), pp. 7-13.

[10] Clifford V. Rossi, *Mortgage Banking Cost Structure: Resolving an Enigma* (Office of Thrift Supervision, December 1995).

[11] Mortgage Bankers Assoc. of America, *1994 Cost Study*, p. 43.

[12] Inside Mortgage Finance Publications, *The Mortgage Market Statistical Annual for 1996*, p. 130.

[13] David A. Olson, "Overview," *Journal of Housing Research*, vol. I, no. 1 (1990), p. 10; and Jeffrey A. Lebowitz, "The Technology Gap," *Mortgage Banking* (January 1993), p. 54.

[14] Thomas S. LaMalfa and Phillip Bracken, "The Factors Driving Wholesale," *Mortgage Banking* (August 1991), pp. 47-51.

[15] SMR Research Corp., *Giants of the Mortgage Industry 1991-95* (1992-96).

[16] Inside Mortgage Finance Publications, *The Mortgage Market Statistical Annual for 1996*, pp. 53-62.

[17] Mortgage Bankers Assoc. of America, *1994 Cost Study*, p. 13.

[18] For a discussion of the benefits and costs of wholesale lending, see Tom LaMalfa and David Olson, "Forging Wholesale's Future," *Mortgage Banking* (October 1995), pp. 64-74.

[19] James A. Johnson, speech before the Mortgage Bankers Assoc. of America (October 24, 1995); and "Broker Originations or TPOs Surface as Problem in 1995," *Inside Mortgage Finance* (November 17, 1995), p. 7.

[20] For a discussion of the evolving role of technology in mortgage banking, see Jeff Lebowitz, "Technology and Mortgage Banking in the United States," *Housing Finance International* (March 1995), pp. 36-43.

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Chapter II

Use of Scoring in Mortgage Lending

Use of Scoring in Mortgage Lending

The use of scoring technology is spreading rapidly in the mortgage industry. Scoring is the process of using statistical models to evaluate the credit risk of specific borrowers or loans. Freddie Mac, Fannie Mae, and other firms in the single-family mortgage industry increasingly are using scoring to quantify the credit risk of single-family mortgages more precisely and to manage that risk more actively.

The industry uses three types of statistical scoring (see *Box 4*). *Credit scoring* uses credit information to rank borrowers in terms of their risk of defaulting on a variety of consumer debt obligations, including mortgage payments. *Mortgage scoring* uses information from credit and mortgage-related sources to rank specific mortgage loans by relative credit risk. The goal of these scoring systems is to reduce the two most significant errors that can occur when underwriting a loan application: approving a loan that eventually defaults, or rejecting a loan that would be repaid. *Behavioral scoring* uses data on borrower payment behavior to rank delinquent loans by their risk of going to foreclosure. The mortgage lending industry can use scoring techniques throughout the lending process.

Freddie Mac and Fannie Mae each view statistical scoring as a means of improving the management of the credit risk of single-family mortgage loans. The Enterprises have encouraged lenders to use credit scores in the underwriting process. They also have integrated scoring techniques into the proprietary automated underwriting systems that they lease to lenders. Scoring also has potential benefits for Freddie Mac and Fannie Mae in purchasing and securitizing mortgages. The numerical results can help the Enterprises decide to accept relatively safe loans that previously would have seemed too risky, or reject risky loans that would have seemed to be acceptable in the past.

Box 4: Types of Scores Used in Mortgage Lending

Credit scores rank borrowers in terms of their relative risk of defaulting on consumer debt. Credit scoring models use data on borrower credit histories available from one or more of the three national credit bureaus — Equifax, Trans Union, and TRW. Examples of the types of data used in credit scoring models include the length of time a borrower's oldest line of credit has been used, the average principal balance of the borrower's total debt, the borrower's revolving debt balances as a percent of the limits on those balances, and the number of times a borrower has been delinquent 60 days or more.

Mortgage scores rank specific mortgage loans in terms of their relative credit risk. Mortgage scoring models use data on the type of loan; the type of property; data from one or more credit bureaus or a credit score; information from the loan application such as the loan-to-value (LTV) ratio, debt-to-income ratios, cash reserves, and the applicant's years on the job; and, in some cases, regional economic data.

Behavioral scores rank delinquent mortgage loans in terms of their probability of going to foreclosure. Data used in such models may include a current credit score, the type of loan, how long the loan has been delinquent, the reasons that the borrower gives for the delinquency, and how the borrower has performed if and when the loan has been previously delinquent. These are "behavioral" scores because they take into account the previous payment behavior of borrowers on the specific loans being analyzed.

Statistical scoring has far-reaching implications for single-family mortgage lending, but the magnitude of the benefits that the Enterprises and other housing finance firms may achieve remains unclear. The use of scoring in underwriting, especially mortgage scoring, is relatively new. Firms using mortgage scores will reassess their predictive power and reestimate their models as loans evaluated by them pass through their peak default years. Scoring has other limitations. For example, it is not well suited to evaluate borrowers whose use of credit has been low. The use of scores in underwriting mortgage loans also may raise fair lending issues.

As the safety and soundness regulator of Fannie Mae and Freddie Mac, OFHEO is adapting our examinations and monitoring to assess the Enterprises' use of scoring and its potential effects on their credit risk exposure and risk management practices. At the same time, OFHEO is monitoring the potential implications of scoring for the single-family mortgage industry as a whole. Widespread use of scoring may lead to broad changes in mortgage markets. The potential effects include changes in the choices available to prospective mortgage borrowers and in the credit risk borne by federally regulated depository institutions, as well as the Enterprises.

Scores Used in Mortgage Lending

Credit Scores Assess Credit Risk of Borrowers

Credit scoring, as a statistical technique for evaluating the likelihood that a debtor will repay a loan, is not new. Consumer lenders have used credit scores to evaluate applications for auto, credit card, or installment loans for more than 40 years.[1] But credit scoring in the mortgage industry is a relatively recent phenomenon.

Credit scores are numerical assessments that rank borrowers in terms of their relative risk of defaulting on household debt, including credit cards, auto loans, revolving lines of credit, and home mortgage loans. Credit scores are calculated from the payment histories of millions of consumers collected and maintained by the three national credit bureaus — Equifax, Trans Union, and TRW. Taken together, these credit histories yield predictive patterns, which can be summarized in scores and used to forecast the likelihood of repayment. Because credit scoring models use credit bureau data, credit scores are often referred to as "bureau scores."

Fair, Isaac and Co. (FICO), based in San Rafael, Calif, is the leading supplier of credit scores. Credit scores calculated using models developed by FICO may be purchased from each of the three credit bureaus. Bankruptcy scores, which rank borrowers in terms of their relative risk of going bankrupt, also are available from the credit bureaus. The predictive power of these scores, which are produced by Atlanta-based CCN-MDS, is similar to that of FICO credit scores. FICO and CCN-MDS calibrate their models so that scores are comparable across the three bureaus. The models are updated periodically to maintain comparability of scores over time.

Credit scores are designed to predict the performance of household debt obligations. A mortgage originator may rely on credit scoring research by secondary market investors to determine the appropriate level of scrutiny that it should give loan applications. If an originator, mortgage insurance company, or secondary market investor wants to use credit scores as a critical factor in underwriting single-family mortgage loans, the firm typically conducts its own research to establish the statistical relationship between credit scores and the performance of mortgages it has underwritten in the past.

A firm that desires to conduct its own research, such as a mortgage insurer, would obtain scores of a sample of individuals whose mortgages it had insured in the past. The scores must reflect the credit histories of the borrowers at the time they applied for insurance, and the sample must be large enough to permit valid inferences on the population of all similar loans insured by the company. The insurer divides the distribution of possible credit scores into a number of risk categories and calculates the average performance, for a period of time since origination, of sampled loans whose borrowers had credit scores in each category. The result is an "odds chart" that shows the average historical performance of loans made to borrowers with credit scores in each risk category.

Odds charts developed by the mortgage industry generally show that the higher the FICO credit score of a borrower (or the lower a borrower's MDS bankruptcy score) when a single-family mortgage loan is origi-

nated, the lower the likelihood that the borrower will default on the loan.[2] Industry research, including a study conducted by economists at Freddie Mac, found that credit scores at origination have statistically significant predictive power in assessing the subsequent performance of single-family mortgage loans.[3]

Mortgage Scores Assess Credit Risk of Mortgage Loans

As large firms in the mortgage industry have become familiar with credit scores, they have used the technique to develop predictive models aimed specifically at mortgage holders. Mortgage scores attempt to forecast the likelihood of default of individual mortgage loans. Mortgage scoring uses a broader array of data than credit scoring, which dwells only on borrower credit histories. Mortgage scoring models typically include a credit score, or credit bureau data, plus other borrower information pertinent to repayment, such as the applicant's debt-to-income ratio, cash reserves, and years on the job. Additional input to the scoring model may include the type of loan, the loan-to-value (LTV) ratio, and the type of property. A model also may include variables that reflect regional or local economic performance.

Industry research indicates that the additional variables in mortgage scores yield results that are more predictive of the performance of single-family mortgage loans than FICO credit scores alone. For example, Mortgage Guaranty Insurance Corp. (MGIC) found that, of a sample of 560,000 single-family loans originated in 1989-92, those placed in the highest-risk quintile of the sample using MGIC's mortgage scoring model had a foreclosure rate 34 times the foreclosure rate of those placed in the lowest-risk quintile. When the same loans were ranked solely on the basis of borrowers' FICO scores, the highest-risk quintile had a foreclosure rate only 8 times that of the lowest-risk quintile.[4] The greater difference in the foreclosure rates at the high- and low-risk ends of the distribution created with MGIC's scoring model indicates its greater predictive power, which can be attributed to its use of other variables in addition to the FICO score, which the model uses to assess borrower creditworthiness. Among the additional variables are the type of loan, the LTV ratio, and a proprietary market score for the Metropolitan Statistical Area or state in which the property is located.

Behavioral Scores Assess Credit Risk of Delinquent Loans

A third form of scoring, *behavioral scoring*, is beginning to be used in the mortgage industry. Behavioral scores rank the probability that loans already in the delinquent stage will proceed to foreclosure. The scores are "behavioral" because they take into account the previous payment behavior of borrowers on the specific loans being analyzed. Data used in behavioral scoring models may include current credit score, loan type, length of delinquency, borrower reasons for late payments, and borrower performance if and when the loan was previously delinquent. Behavioral scores are not yet widely used, and results of research on their predictive power are not publicly available.

How the Industry Is Using Scoring

Scoring Can Redesign Credit Risk Management

Originators, mortgage insurers, and secondary market investors can use scoring in several ways to manage the credit risk of single-family mortgages. In underwriting, originators can decide on an appropriate level of review based on the scores of prospective borrowers. A high credit or mortgage score can identify applications for quick approval and streamlined processing, where borrowers may be freed from providing complete documentation of income and assets and a full-blown property appraisal may not be required. Originators and secondary market investors can use mortgage scores to "fine tune" underwriting decisions in an effort to accept more lower-risk applications and decline more higher-risk ones.

Scoring has potential applications for credit risk management beyond underwriting. Originators, wholesale lenders, and secondary market investors can use credit or mortgage scores to redesign quality control programs. Quality control staffs can shift their focus from checking compliance with underwriting guidelines to reviewing the internal controls of scoring models, documentation of applicants' income and assets, and appraisals or other estimates of collateral values. Post-purchase review of samples of loan files can focus on higher-risk loans that received more extensive manual review.

Mortgage scoring models can also be used as an element in loan-level risk-based pricing, where prices that firms charge to bear the credit risk of mortgage loans are stratified by risk. Originators, for example, can use mortgage scores to vary the interest rate or points charged to borrowers on the basis of the estimated credit risk of the loans they receive. Mortgage insurance companies can vary premium rates by estimated credit risk. Secondary market investors can vary the prices they pay for individual loans or pools of loans based on estimated credit risk. Credit rating agencies can review the mortgage scores of loan pools when determining the level of loss protection that issuers require to obtain investment-grade ratings on mortgage-backed securities (MBS).

Historically, the industry has tended to practice average cost pricing of conventional fixed-rate mortgages, especially conforming loans eligible for sale to Fannie Mae and Freddie Mac. Loan-level risk-based pricing of conforming fixed-rate loans by originators could introduce greater differentiation in the interest rates and points paid by borrowers who obtained such mortgages.

Some firms are beginning to use scoring to predict prepayments as well as defaults. The results can be used to value servicing portfolios and to monitor changes over time in the overall economic value of loan and servicing portfolios. Servicers can use behavioral scores in programs designed to reduce delinquency and foreclosure losses by identifying higher-risk delinquent borrowers and targeting borrowers for collection and loss mitigation activities.

Given that scoring in the mortgage industry is only a few years old, its benefits and the speed at which the industry will adopt it remain unclear. Most mortgage scoring models were developed recently, using data on the performance of loans that particular firms had financed or insured in the past. Efforts to use such models to score new loans may produce different results. Companies may revise their assessments of the predictive power of their models in the next few years, as data on the performance of newly originated and scored loans during their peak default years become available. Moreover, individual firms may make mistakes that reduce their earnings or market share. If the use of scoring becomes widespread, as seems likely, the industry as a whole may become more competitive, which could lower profits of some firms. These factors make it difficult to predict the size of potential reductions in credit losses, or increases in business volumes and profits that firms may be able to achieve through scoring.

There is also uncertainty about the potential impact on borrowers. So far, scoring's biggest impact has been in streamlining the processing of broad groups of mortgage applications submitted to some lenders for loans whose estimated credit risk is similar. If originators develop considerable confidence in their ability to use mortgage scoring to accurately predict the performance of individual loans, they may introduce more loan-level risk-based pricing. This decision also may hinge on whether secondary market investors introduce greater geographic variation in their prices.

Scoring By The Enterprises

Fannie Mae and Freddie Mac can use scoring to reengineer their management of the credit risk inherent in single-family mortgages. To the extent that mortgage scoring improves the accuracy of credit risk assessment, each Enterprise could use it to increase the volume of business it does, lower its credit losses, or both.

The growing use of scoring also presents both Enterprises with the challenge of protecting themselves from being adversely selected by lenders during a period when credit risk management practices are evolving. The relative competitive positions of Fannie Mae and Freddie Mac could be affected if either Enterprise used scoring to manage the credit risk of single-family loans and the other did not.

Freddie Mac and Fannie Mae are responding to these opportunities and challenges. In September 1995, Freddie Mac reported that it has been tracking FICO credit scores on the loans it purchases or securitizes since at least the beginning of 1994.[5] In a July 1995 *Industry Letter*, Freddie Mac encouraged lenders with which it does business to use credit scores in underwriting. The same letter provided guidance about the appropriate level of review for applications from borrowers with different credit scores. It indicated that Freddie Mac would be using scores in its post-purchase review of single-family loans. Freddie Mac's automated underwriting system, *Loan Prospector*, uses a mortgage scoring model and underwriting rules to evaluate loan applications. *(Box 3 on page 17 of Chapter I discusses each Enterprise's automated underwriting system.)* Freddie Mac also is developing a behavioral model to help predict delinquent loan performance.[6]

Fannie Mae also has taken steps to integrate scoring into credit risk management. In an October 1995 *Lender Letter*, Fannie Mae encouraged lenders to use credit scores in underwriting as part of their overall evaluation of applicant credit history and loan credit risk. The letter said Fannie Mae would use credit scores in post-purchase review and would require lenders to begin providing information the Enterprise needs to obtain credit scores of borrowers for all loans delivered after June 1996. Fannie Mae has added a credit scoring component to the rules-based analysis of loan risk performed by its automated underwriting system, *Desktop Underwriter*. The system began using credit scores in the evaluation of streamlined refinancing loans in August 1995, and of all loans in January 1996. Fannie Mae also is developing a mortgage scoring model.[7]

Industry Use of Scoring Grows Rapidly

Large mortgage originators began using credit scores in the underwriting process in the 1990s. Today, many of the largest lenders, including Norwest Mortgage Inc., Countrywide Home Loans, Fleet Mortgage, and GMAC Residential Funding Corp., routinely obtain the credit scores of prospective borrowers. Smaller originators increasingly are collecting credit scores as well, spurred by the Enterprises' recent encouragement of their use in underwriting.

National credit bureaus, mortgage insurers, and many of the largest originators have developed mortgage scoring models. The best known models are those developed by the four largest mortgage insurers. The *pmiAURA* automated underwriting system, developed by PMI Mortgage Services, a subsidiary of PMI Mortgage Insurance Co., uses a mortgage score called *AURA Quality Index*. MGIC has developed *Loan Performance Score* for use in evaluating mortgages with LTV ratios over 80%. United Guaranty Residential Insurance has developed *ACUScore* for evaluating conforming loans and mortgages with balances above the Enterprises' purchase limits (jumbo loans). GE Capital Mortgage Corp., an affiliate of GE Mortgage Insurance Co., has developed *OmniScore*. Other large lenders with mortgage scoring models include Prudential Home Mortgage (recently acquired by Norwest Mortgage), Bank of America, NationsBanc, Citicorp Mortgage, and GMAC Residential Funding Corp.

Several firms recently have brought their mortgage scoring models to market or announced expansions of the types of loans that could be scored with their models. Contributing to these developments was the encouragement Freddie Mac and Fannie Mae gave their customers in the use of credit scores. As the industry becomes more familiar with scoring, the market for mortgage scores is likely to expand. Within a few years, originators and lenders may have on-line access to multiple, inexpensive mortgage scores for use in underwriting, pricing, and valuation of loans and servicing portfolios.

The credit rating agencies have been evaluating the mortgage scoring models used by major lenders that issue MBS backed by jumbo loans and subprime loans. If use of these models suggests a low level of default risk, the rating agencies may adjust the amount of mortgage insurance they require on the securities.[8]

Some servicers have started using behavioral scores to evaluate the risk that delinquent mortgage loans will go into foreclosure. GE Capital Mortgage Corp. uses the *Superica* model that it developed for this purpose. The national credit bureaus have developed behavioral scoring models for some of their lender customers.

Implications of the Use of Scores

Mortgage Scoring Likely to Affect Markets

The mortgage industry's experience with scoring, although brief, has produced a growing consensus that scoring models can measure the credit risk of most single-family mortgages more accurately than traditional underwriting criteria. The increased use of scoring by Freddie Mac, Fannie Mae, and other firms may lead to several changes in the Enterprises' business practices and, more broadly, in conventional mortgage markets.

One likely prospect is that Fannie Mae and Freddie Mac will accept some single-family mortgages that underwriters now deem too risky for the Enterprises to purchase or securitize. This potential effect is illustrated by an analysis of a sample of 489 loans conducted by Standard & Poor's Corp. The loans were initially graded

as subprime, using traditional underwriting criteria. Standard & Poor's then used Freddie Mac's *Loan Prospector* to evaluate the expected performance of the loans. The system concluded that nearly two-thirds of the mortgages had probable default rates comparable to the historical default rates of loans graded as prime using the rating agency's traditional criteria.[9] The results of *Loan Prospector*'s analysis imply that the credit risk indicated by the borrowers' debt-to-income ratios or previous credit problems was not large enough to merit grading their loans as subprime, when offsetting strengths such as the LTV ratios of the loans or the borrowers' overall credit histories were taken into account.

The Standard & Poor's sample was small, and care should be taken in extending the findings to subprime loans generally. Nonetheless, the analysis illustrates the potential use of mortgage scoring to reduce underwriting errors and expand the types of mortgages eligible to be purchased or securitized by the Enterprises.

A second implication of scoring is that markets for subprime and jumbo mortgages will likely become more active. Competition should increase in efforts to identify mortgages that would be graded subprime under traditional underwriting criteria but that pose a relatively low level of credit risk when scrutinized by scoring systems. Competition for low-risk jumbo loans also is likely to increase. This should encourage greater standardization in the subprime market and lead to lower and more uniform interest rates on both subprime and jumbo loans.

A third possibility is greater differentiation in the interest rates and points that originators charge individual borrowers on conforming fixed-rate loans. As mortgage scoring models become more widespread, originators and wholesale lenders will be able to distinguish more easily between low-risk and very low-risk conforming mortgages — loans of A and A+ credit quality, respectively. This distinction already exists in the practice of reducing the documentation required of applicants for very low-risk loans. Many lenders that use automated underwriting systems have adopted this practice in order to compete for such borrowers.

Finally, Fannie Mae and Freddie Mac could decide that based on scoring results, some single-family mortgages that they previously purchased or securitized pose an unacceptably high level of credit risk. If this happened, applicants for these loans might be able to obtain a government-insured loan or conventional financing from subprime lenders, but usually at a higher cost than if the loans met Enterprise purchase standards.

Scores Have Limitations

Credit and mortgage scores have limitations that pose potential risks and challenges to the single-family mortgage industry. Research on the accuracy of these models is promising. Still, the models are new and their assumptions may have to be revised as the actual performance of newly originated loans is documented in the next few years. Moreover, the predictive power of mortgage scoring models may not be as great for types of loans that differ significantly from the loan types in samples used to estimate the models. For example, accurate models developed from data on high-LTV loans that carry private mortgage insurance may not be as precise for loans with lower LTV ratios. Similarly, scoring models developed for jumbo loans may not work well for smaller loans. Firms can protect against these risks by conducting pilots that establish the predictive power of models for loans that differ from the ones used in model development.

Currently, credit scoring models do not distinguish between borrowers whose scores recently have been trending upward and those whose scores have been trending downward. Borrowers who have the same current credit score, but whose scores have recently moved in different directions, may present different levels of credit risk. To test this possibility, some firms are developing scoring models that take into account recent trends in borrowers' loan balances and repayment patterns.

Scoring models also are not well suited for evaluating the credit risk of prospective borrowers who have not used much credit. Some mortgage applicants may not have taken out a car loan or used credit cards or revolving lines of credit. The lack of credit activity may not generate enough information for a credit score. Such individuals may, nonetheless, have good track records paying their rent utility bills, phone companies, and other local creditors. Conducting outreach to these prospective borrowers and developing standards for alternative documentation of their credit histories are important challenges for the industry.

Use of Scoring in Underwriting May Raise Fair Lending Issues

The use of credit and mortgage scores in underwriting applications for single-family mortgage loans has the potential to reduce disparities in the direct treatment of different groups of borrowers, but may raise questions about the ultimate impact on different groups. Several statutes address discrimination in lending. These include the Equal Credit Opportunity Act and the Fair Housing Act, which prohibit discrimination in lending on the basis of race, color, national origin, religion, gender, and a number of other bases. Fair lending requirements also are contained in OFHEO's enabling statute. These requirements prohibit Fannie Mae and Freddie Mac from discriminating in any manner in the purchase of any mortgage on a prohibited basis under the Fair Housing Act.

Fair lending laws are designed to ensure that loan applicants who are members of protected groups are treated no differently than other applicants. Scoring models do not consider the race, color, national origin, religion, or gender of prospective borrowers. Thus, widespread use of scoring is likely to reduce, rather than increase, disparate treatment of members of minority groups. This would be a positive outcome.

Another fair lending issue related to scoring models is whether their use in the underwriting process has a disparate impact on applicants who are members of protected groups. Disparate impact analysis is a judicial doctrine used in employment law for the past 25 years. The concept allows a particular business practice to be challenged as unlawfully discriminatory based solely on its unintended effects on protected groups. Under disparate impact analysis, if a plaintiff demonstrates that a specific business practice or policy has a disparate impact on protected groups, the burden shifts to the defendant, who must show that the challenged practice or policy serves a business necessity. Even if the defendant shows a business necessity, the plaintiff will prevail in establishing disparate impact discrimination if the plaintiff shows that an alternative exists that serves the same business necessity equally well with less discriminatory effect.

In mortgage lending, disparate impact might occur when a firm applies an underwriting policy or practice, which includes the use of credit or mortgage scores, uniformly to all applicants, but the policy or practice has a disproportionate impact on a group protected against discrimination. To date, the courts have not applied disparate impact analysis to mortgage lending. The analysis of disparate impact in lending is an evolving area of law that requires more specificity, particularly in the area of mortgage lending.

Scoring May Affect Federally-Regulated Financial Institutions

Scoring is stimulating federally regulated financial institutions to change how they manage the credit risk of single-family mortgage loans. If scoring models become widely accepted as accurate predictors of loan performance, the amount and credit risk profile of mortgages financed by federally insured depository institutions and the Enterprises may change.

Federally insured commercial banks and thrifts currently hold over $1.1 trillion in whole loans in their portfolios. Some analysts estimate that about one-third of those mortgages are subprime loans, according to traditional underwriting. If widespread use of mortgage scoring leads to greater standardization of, and competition for, subprime loans and causes interest rates on some of those mortgages to fall, it would be less profitable for depository institutions to hold such loans in portfolio, and more mortgages probably would be securitized. Further, if Freddie Mac and Fannie Mae purchased and securitized a significant proportion of mortgages traditionally graded subprime, the volume of whole loans held by depository institutions, and their average credit quality, might decline as the Enterprises bore more of the credit risk on the highest quality loans.

In conclusion, scoring has the potential to affect the safety and soundness of Fannie Mae and Freddie Mac in several ways. The Enterprises may be able to use mortgage scoring to alter the volume of single-family mortgages they purchase and securitize, as well as the average credit risk of those loans. Behavioral scoring also may allow them to reduce their credit losses on delinquent loans. To assess the likely implications for safety and soundness, OFHEO will continue to monitor how each Enterprise uses scoring.

[1] For more information on credit scores, see Edward M. Lewis, *An Introduction to Credit Scoring* (San Rafael, CA: Athena Press, 1994).
[2] See, for example, "Beacon Validation Odds Summary," (Fair, Issac, and Co. Inc., August 1993).
[3] Thomas M. Holloway, Gregor D. MacDonald, and John W. Straka, "Credit Scores, Early-Payment Mortgage Defaults, and Mortgage Loan Performance," (Paper prepared for the 1993 ORSA/TIMS Joint National Meeting, November 1, 1993).
[4] Mortgage Guaranty Insurance Corp., "The MGIC Loan Performance Score," (March 19, 1996), pp. 11-12. The sample was representative of the geographic distribution, LTV ratios at origination, and loan types of the company's overall book of insured loans.
[5] Federal Home Loan Mortgage Corporation, (Presentation to Housing Roundtable, Sept. 23, 1995).
[6] "Freddie Mac Sets Servicing Goals for 1996," *Seller/Servicer Update* (March 1996), pp. 11-12.
[7] "Next Big Question in Scoring, Automated Underwriting: When Will Scores Impact Secondary Market Pricing," *Inside Mortgage Finance* (May 17, 1996), pp. 7-8.
[8] Fitch Investors Service, "Residential Mortgage Credit Scoring," (December 4, 1995); Standard & Poor's Corp., "Evaluating Automated Underwriting Systems," (April 1996); and Moody's Investors Service, "A Guide to Credit Scoring of Mortgage Loans," (May 23, 1996).
[9] Standard & Poor's Corp., "Validating Automated Underwriting Systems," (April 1996); and "Trends in Non-Conforming Credit Paper," (Presentation by Frank Raiter, Managing Director, Standard & Poor's Corp., Mortgage Bankers Assoc. of America, National Secondary Market Conference, April 10, 1996).

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Chapter III

Mortgage Markets and the Enterprises in 1995 and Early 1996

Mortgage Markets and the Enterprises in 1995 and Early 1996

In an environment of generally stable housing markets and improving mortgage markets, profits of both Fannie Mae and Freddie Mac reached record levels in 1995, although growth was slower than in recent years. Growth opportunities available to the Enterprises were limited by lower levels of mortgage originations. The earnings increases were generated by continued rapid expansion of the Enterprises' retained mortgage portfolios, which currently are substantially more profitable than guarantees of mortgage-backed securities (MBS). A resurgence in mortgage refinancing in response to lower interest rates started late in the year and continued into early 1996. The resulting increases in overall business volumes and further growth of retained portfolios led to additional profit gains in 1996's first quarter.

Increases in the retained mortgage portfolios of Fannie Mae and Freddie Mac raised their exposure to interest rate risk, which is inherent in such assets. In 1995, Fannie Mae and Freddie Mac continued to utilize their primary tools for managing that exposure: issuing long-term debt securities (or their equivalents) and retaining call options on many of those instruments. Both Enterprises increased capital levels, maintaining compliance with their minimum capital requirements through the first quarter of 1996.

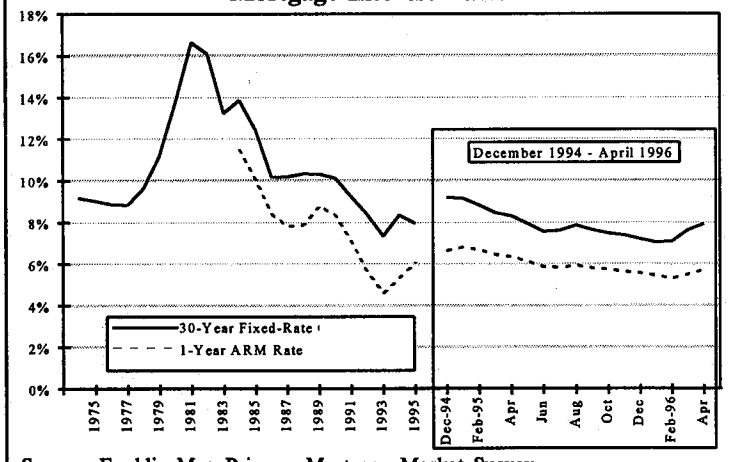
Credit risk indicators of Enterprise mortgages deteriorated somewhat in 1995. Current delinquencies and chargeoffs largely reflect the behavior of loans made in the early 1990s, before the refinancing boom of 1992-93. While the refinance loans were generally very high quality, more recent purchases have had higher risk characteristics.

Housing and Primary Mortgage Market Developments

Interest Rate Movements Set the Tone in Housing and Mortgage Markets

In recent quarters, housing and mortgage markets have been driven primarily by swings in interest rates. After rising approximately two percentage points in 1994, yields on longer-term Treasury securities reversed course in 1995 before rising again in early 1996. Changes in mortgage rates paralleled the movements in Treasury yields. Freddie Mac's Primary Mortgage Market Survey (PMMS) indicates that lenders' commitment rates on 30-year fixed-rate mortgages (FRMs) peaked in December 1994, dropped approximately 2.2 percentage points by February 1996, and then rose approximately one percentage point in March and April (*see Figure 5*). Commitment rates on 30-year adjustable-rate mortgages (ARMs) fell less sharply in 1995, reflecting a flattening of the yield curve.

Figure 5
Mortgage Interest Rates



Source: Freddie Mac Primary Mortgage Market Survey

The increases in interest rates in 1994 led to a general moderation of economic growth. In the housing sector, starts, home sales, and mortgage originations all dropped off during the first half of 1995. These declines were reversed in the second half of the year, as the effects of more moderate interest rates were felt. Late in the year, originations benefited not only from the stronger housing market, but also from a pickup in refinancing activity, as mortgage rates approached their 1993 lows. For 1995 as a whole, single-family starts were down 7%, home sales fell 4%, and single-family mortgage originations declined 17% from 1994 to $636 billion. Multifamily housing starts increased to the highest levels since 1990, but remained well below levels of the 1980s. Multifamily originations increased by more than a fifth, reflecting strength in the multifamily market.

Single-family home prices increased more rapidly in 1995 than in recent years, despite the decline in the volume of home sales and stable rates of general price inflation (*see Figure 6*). In the four quarters ending with March 1996, OFHEO's House Price Index (HPI) rose 5.4%. House prices in five regions — Mountain, East South Central, West South Central, East North Central, and South Atlantic — grew faster than the national average (*see Figure 7*). The lowest rates of house price

Figure 6
OFHEO House Price Index (United States)
Annual Percent Changes (Q4/Q4)

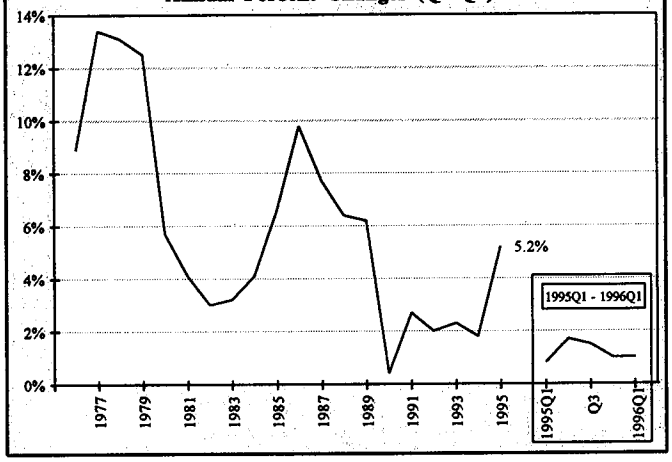
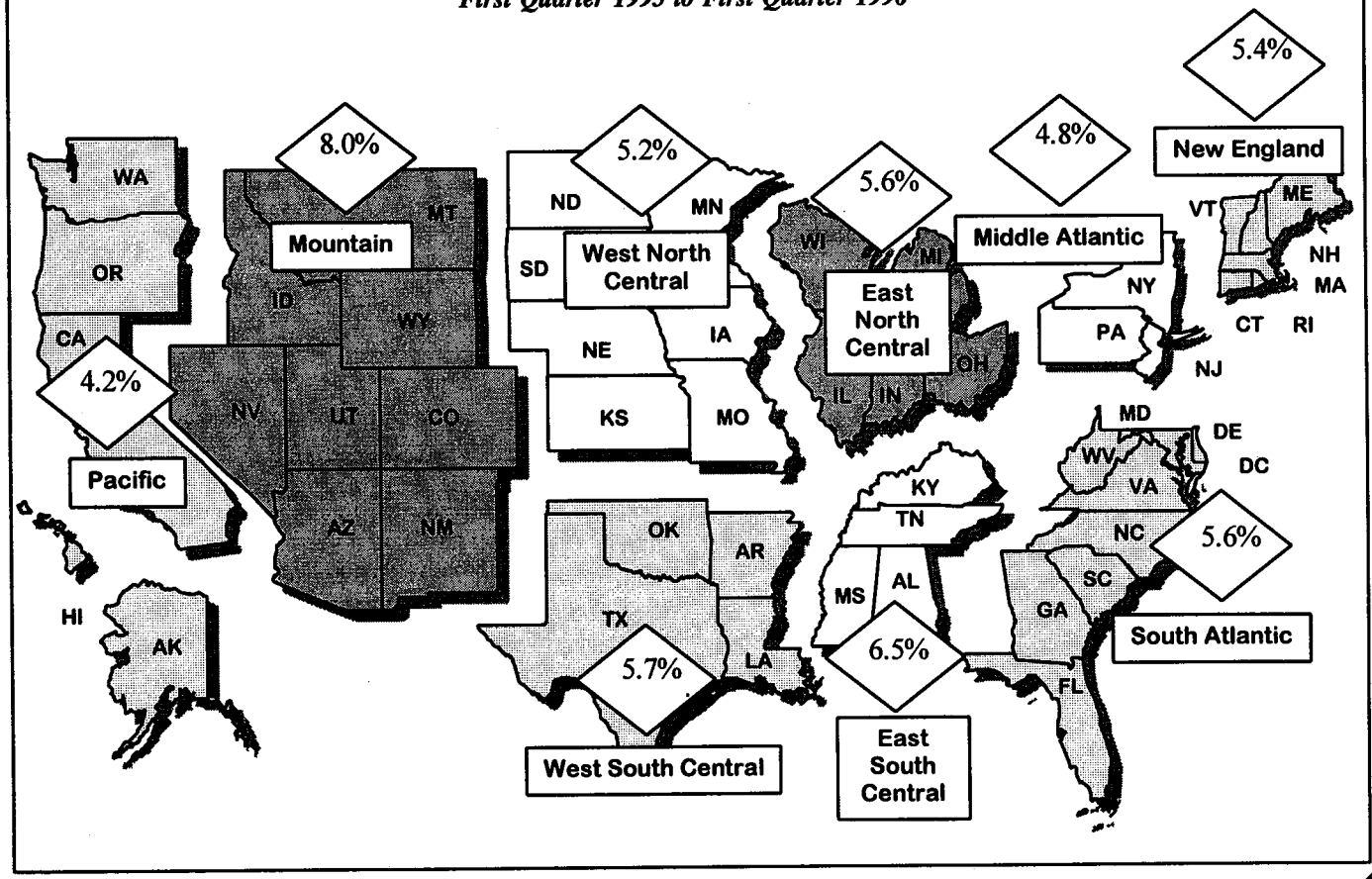


Figure 7
One Year Change in House Prices
U.S. Census Divisions
First Quarter 1995 to First Quarter 1996



appreciation occurred in the Pacific and Middle Atlantic regions. House price growth in the Pacific region in 1995 followed three years of depreciation that accompanied the deep economic recession in California in the early 1990s.

Interest Rate Changes Altered the Composition of Mortgage Originations

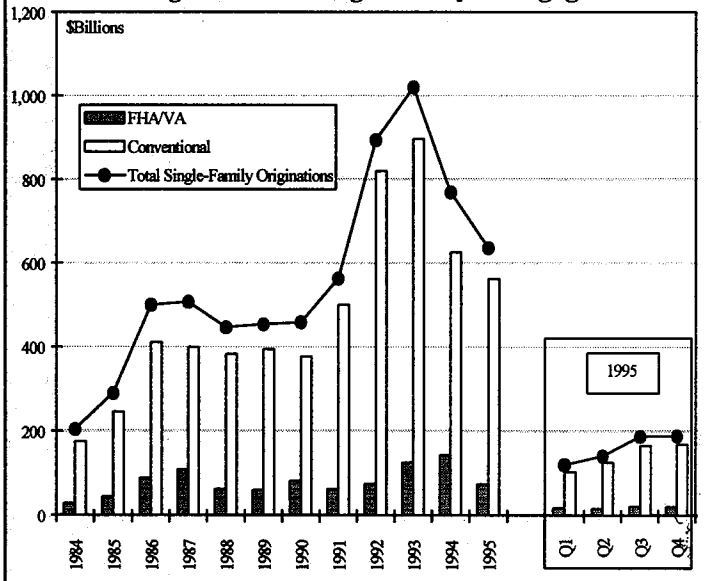
Originations of conventional single-family mortgages declined less than total single-family originations in 1995, as home loans insured by the Federal Housing Administration (FHA) and mortgages guaranteed by the Department of Veterans Affairs (VA) declined nearly 50% to $74 billion (*see Figure 8*). The larger percentage decline of FHA/VA loans in 1995 reflected the historically slower response of those borrowers to movements in interest rates.

Interest rate declines in 1995 and in early 1996 affected the composition of conventional single-family originations. According to PMMS, the proportion of such mortgages made to refinance existing loans reached a low point in January and February of 1995, rose steadily through early 1996 as interest rates fell, and then turned down in March of this year as rates headed up again (*see Figure 9*). For all of 1995, however, refinance loans fell from about one-third to about one-quarter of single-family originations, despite the declines in interest rates, as fewer high-coupon loans from earlier origination years remained. During the course of 1995, the rising share of refinance loans, which generally have low loan-to-value (LTV) ratios, was matched by a declining share of high-LTV mortgages. According to the Federal Housing Finance Board's Mortgage Interest Rate Survey (MIRS), the average LTV ratio of conventional single-family mortgages and the proportion of such loans with high LTV ratios both fell during the year, especially in the second half (*see Figure 10*). Despite these trends, both figures remained significantly higher than in the early 1990s, reflecting both a decline in refinancing volume and a trend toward lower down payments on purchase money loans.

Lower interest rates also led more borrowers to choose FRMs over adjustable-rate loans. The ARM share of conventional single-family originations, after peaking in January 1995, had declined a year later to the lowest level since August 1993 (*see Figure 11*). According to MIRS, the ARM share of the market on a monthly average basis fell from 39% in 1994 to a still high 33% in 1995.

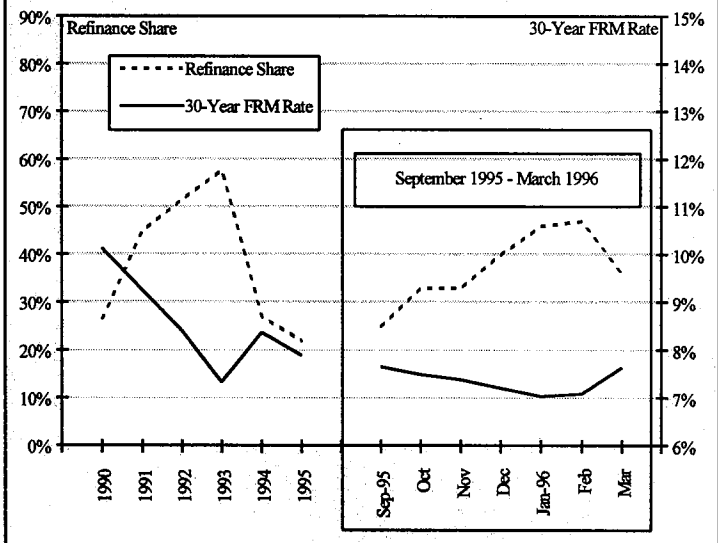
The proportion of single-family loans originated by mortgage banks, which increased rapidly in the early 1990s, rose further to 56% in 1995 (*see Figure 12*). The market shares of commercial banks and thrift institu-

Figure 8
Originations of Single-Family Mortgages



Source: HUD

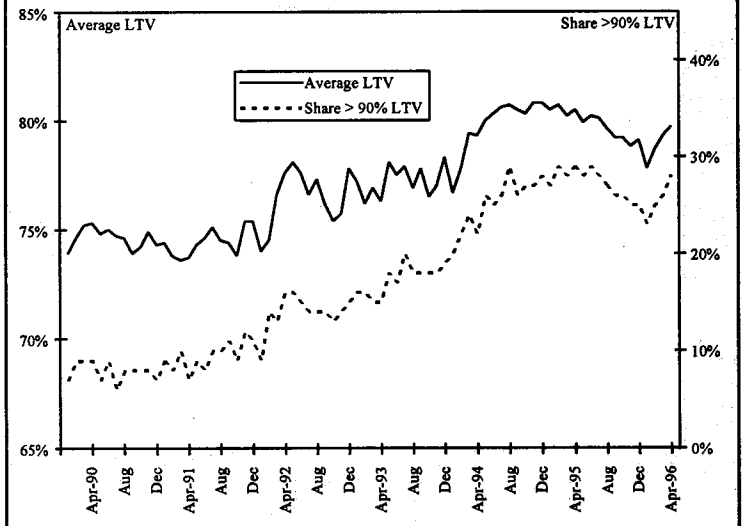
Figure 9
Refinance Share of Total Mortgage Originations vs. Commitment Rate on 30-Yr Fixed-Rate Mortgages



Source: Freddie Mac

Figure 10

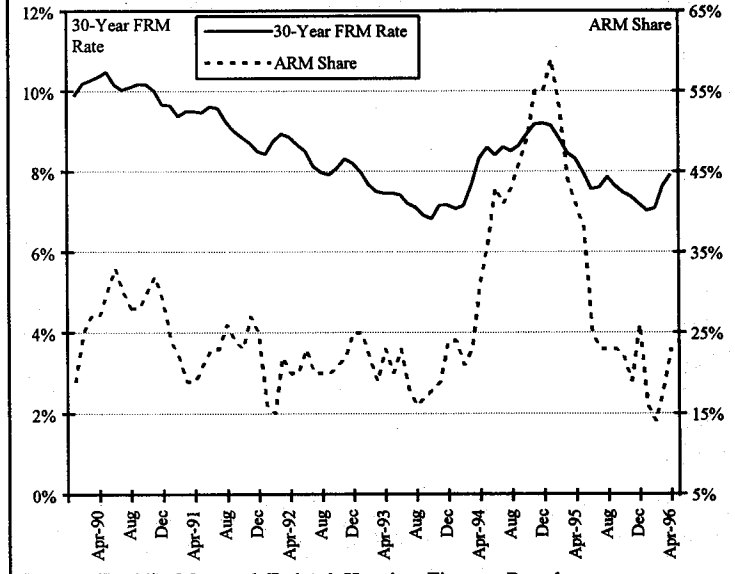
Loan-to-Value Ratios of Conventional Single-Family Mortgages and Percentage of Originations with LTV > 90%



Source: Federal Housing Finance Board

Figure 11

Percentage of Conventional Single-Family Loans with Adjustable Rates vs. Commitment Rate on 30-Yr FRMs



Source: Freddie Mac and Federal Housing Finance Board

tions declined somewhat to 24% and 19%, respectively. Contributing to the growth in the market share of mortgage banks were an expansion of the activities of mortgage bank affiliates of commercial banks and thrifts, the decline in the ARM share of the market, and the increasing volume of ARM originations by mortgage companies. Although thrifts tend to concentrate in ARM lending, data collected by SMR Research Corp. indicate that the four lenders with the largest ARM origination volumes in 1995 were an independent mortgage bank, Countrywide Home Loans, and three bank-related mortgage companies, Norwest Mortgage Inc., Chase Manhattan Mortgage, and NationsBanc Mortgage Corp.

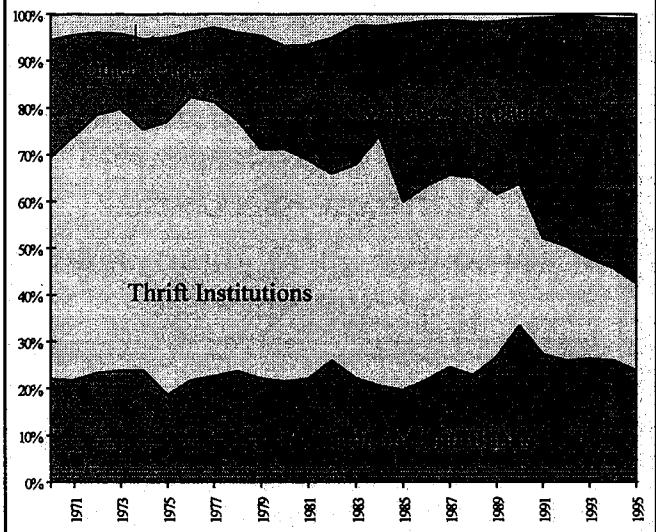
Secondary Market and Mortgage Securities Activities of Fannie Mae and Freddie Mac

Enterprise Purchases of Single-Family Mortgages Fell

Purchases by Fannie Mae and Freddie Mac of single-family mortgages (defined to include whole loans and mortgage securities purchased for portfolio plus guarantees of newly issued MBS) declined in 1995, as low origination volumes and the high ARM share of the market in the first half of the year limited growth opportunities (*see Figure 13*). The Enterprises' purchases were at their lowest in the first quarter of 1995, when single-family originations also bottomed out and the ARM share of originations peaked. By the fourth quarter of 1995 and the first quarter of 1996, however, lower mortgage rates and the moderate refinancing boom in the primary market had boosted single-family mortgage purchases to the highest levels since the first quarter of 1994.

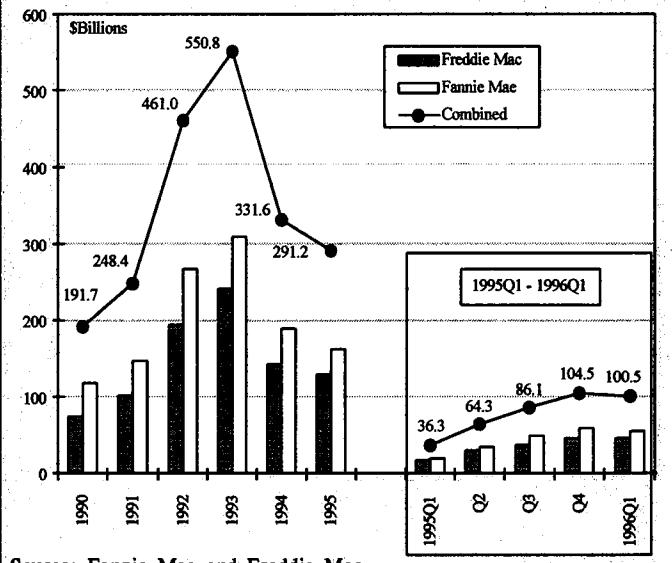
Fannie Mae and Freddie Mac increased their combined share of the single-family market slightly in 1995 (*see Figure 14*). The Enterprises' market share rose because of a substantial increase in their purchases of mortgage securities for their retained portfolios. Continued strength of ARMs in the primary market during the first half of the year was a major factor limiting Enterprise purchases of whole loans. Many depository institutions prefer to retain adjustable-rate loans in their portfolios rather than sell them in the secondary market. Indexes on ARMs vary considerably, and MBS backed by adjustable-rate loans are less liquid than those backed by FRMs. As a result, ARM lending is a more specialized, local business than fixed-rate lending. Many depositories can earn attractive spreads while taking minimal interest rate risk exposure by financing ARMs with short-term liabilities.

Figure 12
Single-Family Originations By Lender



Source: HUD

Figure 13
Enterprises' Single-Family Purchases



Source: Fannie Mae and Freddie Mac

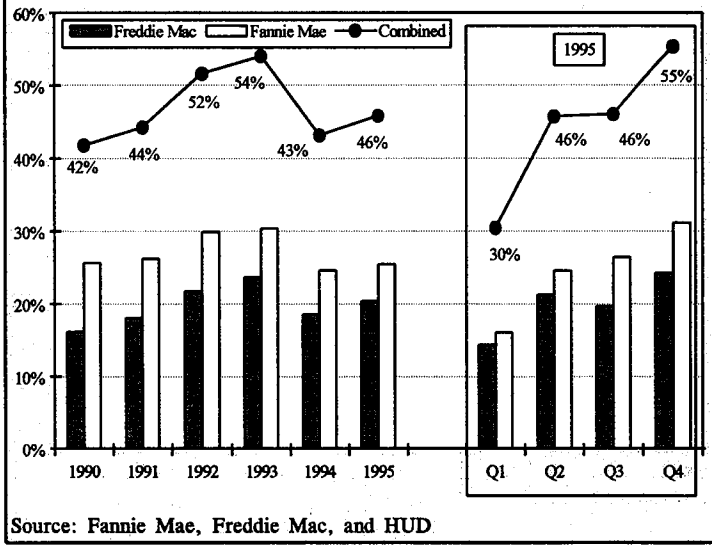
Credit Risk of Single-Family Mortgage Purchases Rose

As in 1994, trends in the primary market altered the characteristics of new single-family mortgages in ways that increased the credit risk posed by each Enterprise's new acquisitions. The Enterprises accepted a smaller portion of the credit risk of newly acquired loans, however, as their share of new acquisitions covered by various forms of credit enhancement rose significantly. Each of these changes in the Enterprises' new single-family business is discussed separately below. There is evidence that the average credit quality of conventional borrowers deteriorated in 1994 and the first half of 1995, and that this affected the credit risk of mortgages purchased by Fannie Mae and Freddie Mac to some degree (*see Box 5*).

After dropping significantly in 1994, the refinance share of single-family mortgages purchased by the Enterprises declined further in 1995, consistent with trends in the primary market. Of the mortgages purchased by each Enterprise in 1995, about one-third were refinance loans, down from about one-half in the previous year. Refinance loans tend to have lower LTV ratios, and lower default rates, than purchase loans. Because of increases in property values and amortization of loan balances, most homeowners who refinance have accumulated more equity in their homes than they had originally. They are, therefore, less likely to default.

The LTV ratios of single-family mortgages purchased by Fannie Mae and Freddie Mac continued to increase in 1995. This reflects the decrease in the refinance share of originations and Enterprise purchases, as well as the continuing high-LTV ratios of purchase mortgages. The average LTV ratio of each Enterprise's new single-family purchases rose to 77% (*see Figure 15*). The

Figure 14
Enterprises' Single-Family Purchases as a Percentage of Single-Family Originations



Source: Fannie Mae, Freddie Mac, and HUD

proportion of loans purchased with LTV ratios greater than 90% continued to rise significantly at both Enterprises. Almost all of these loans had LTV ratios in the 90% to 95% range. Mortgages with LTV ratios greater than 95% accounted for just under 2% of Fannie Mae's single-family purchases and virtually none of Freddie Mac's.

The proportion of single-family FRMs purchased by the Enterprises that had intermediate-term maturities (generally 15 years) also declined further, in line with refinance loan volumes. These maturities are popular with borrowers who are refinancing. Intermediate-term FRMs as a share of total single-family purchases dropped by a quarter at Fannie Mae, and by a third at Freddie Mac. Because the shorter life of intermediate-term mortgages forces borrowers to build up equity more quickly, the loans pose less credit risk than 30-year FRMs.

For the second straight year, adjustable-rate loans comprised a larger share of each Enterprise's single-family purchases. One cause of the trend was the continued popularity of ARMs in the primary market in

BOX 5: Did the Credit Quality of Conventional Single-Family Borrowers Decline in 1994 and 1995?

Mortgage industry participants often assert that the average credit quality of conventional single-family borrowers deteriorated in 1994 and 1995, relative to 1992 and 1993. It has been suggested that lenders were willing to make loans to riskier borrowers in an effort to maintain origination volumes after interest rates increased and the volume of refinance loans plummeted in early 1994.

In September 1995, Freddie Mac shed some light on these claims by releasing information about the Fair, Isaac & Co. (FICO) credit scores of borrowers whose single-family mortgages it had purchased and securitized in 1994 and the first half of 1995. The average FICO score had declined in the second and third quarters of 1994 and again in the first quarter of 1995. At the same time, the percent of FICO scores below 620 (frequently cited as a relatively low score) had risen steadily through the first quarter of 1995, when it peaked at 8.4% of borrowers whose loans were purchased and securitized, before falling to 7.2% in the second quarter of the year.

A study by the Mortgage Research Group, Inc. (MRG), released in March 1996, examined recent changes in borrower credit quality. It compared historical bank card payment status and current bank card utilization rates of 6.5 million borrowers who obtained conventional mortgages with loan balances below the conforming limit in 1991 through 1995. Information for the study was derived from TRW Information Systems and Services data sources. The study considered all types of conventional mortgages, including subprime loans that do not meet the Enterprises' underwriting guidelines. MRG examined borrowers with loans outstanding at the end of the third quarter of 1995.

The MRG study found that 25% of borrowers who received loans in the first three quarters of 1995 had been delinquent at least once on their bank cards, as opposed to 20% of 1994 borrowers and 16.5% of 1993 borrowers. Additionally, 7.2% of 1995 borrowers had been delinquent 90 days or more on bank card debt or had the debt charged off, compared to 3.5% of 1994 borrowers and 3.1% of 1993 borrowers. MRG found that, in November 1995, over 5% of 1995 borrowers had bank card balances equal to more than 90% of the limits on the accounts, compared to 4.4% of 1994 borrowers and 3.3% of 1993 borrowers.

MRG's research supports the view that the credit quality of conventional single-family borrowers deteriorated in 1994 and the first three quarters of 1995 relative to 1993. The data suggest that conventional borrowers who received loans in 1994 and the first three quarters of 1995 tend to be less able to make mortgage payments in the event of job loss or other financial crisis because they have lower savings, higher debt burdens, and less ability to draw down credit lines. The data released by Freddie Mac suggest that the loans purchased and securitized by the Enterprise was affected by these trends, at least through the first half of 1995.

SOURCES: Federal Home Loan Mortgage Corporation, Presentation to Housing Roundtable (Sept. 23, 1995); and Mortgage Research Group, Inc., *Defaults and Mortgagor Credit 1991-95* (March 1996).

the first half of the year. Freddie Mac recorded a larger increase than Fannie Mae primarily by completing two transactions in which two thrift institutions, Home Savings of America and Great Western Bank, swapped $6.4 billion and $2.0 billion, respectively, in seasoned ARMs for MBS. The swaps allowed the thrifts to lower their funding costs because MBS are superior to whole loans as collateral for repurchase transactions (repos), a significant funding source for many thrifts.

The proportion of single-family mortgages purchased or securitized by the Enterprises where lenders have primary risk of default increased significantly in 1995, offsetting to some degree the increase in the credit risk of new business implied by the change in the characteristics of newly financed loans discussed above. Lenders bear primary default risk if they pledge collateral or agree to repurchase mortgages that default. Single-family loans on which lenders bear primary risk rose from 12% of Freddie Mac's purchases in 1994 to 22% in 1995. The proportion of single-family MBS issued by Fannie Mae where lenders bear primary risk on the collateral increased from 9% to 15%.

Purchases of Multifamily Mortgages Increased

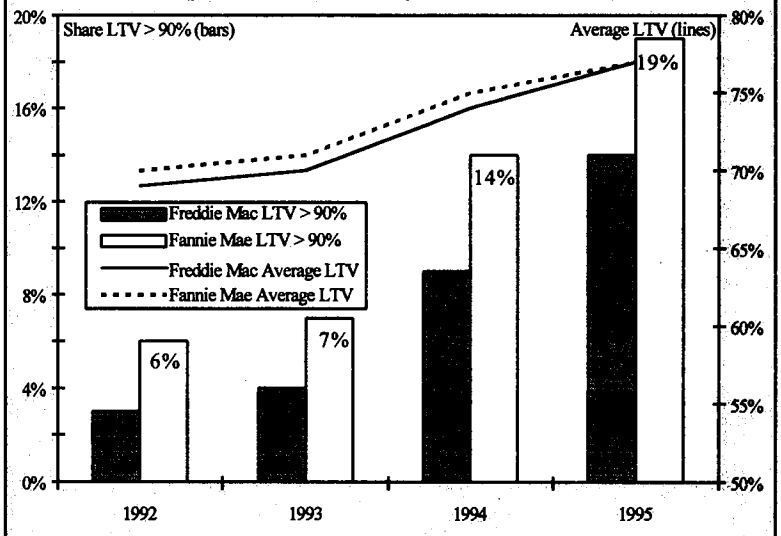
Consistent with trends in the primary market and with the housing goals established by the HUD Secretary, the Enterprises' purchases of multifamily mortgages increased significantly in 1995. Fannie Mae's purchases increased to the highest annual total ever achieved by the Enterprise (*see Figure 16*). Freddie Mac's purchases rose to its largest annual volume since 1989, the year before the Enterprise shut down its multifamily program. Each Enterprise's purchases of multifamily loans jumped in the second half of the year, especially in the fourth quarter.

Volumes of Single-Class MBS and REMIC Issues Declined Further

The Enterprises' securitization of mortgages in 1995 mirrored the trends in the primary market, reaching a low point in the first quarter, climbing slowly thereafter, and ending the year with overall volumes down significantly from 1994. Fourth-quarter issuances of MBS by the two Enterprises were nearly three times the amounts issued in the first quarter of the year (*see Figure 17*). The higher rate was maintained in early 1996.

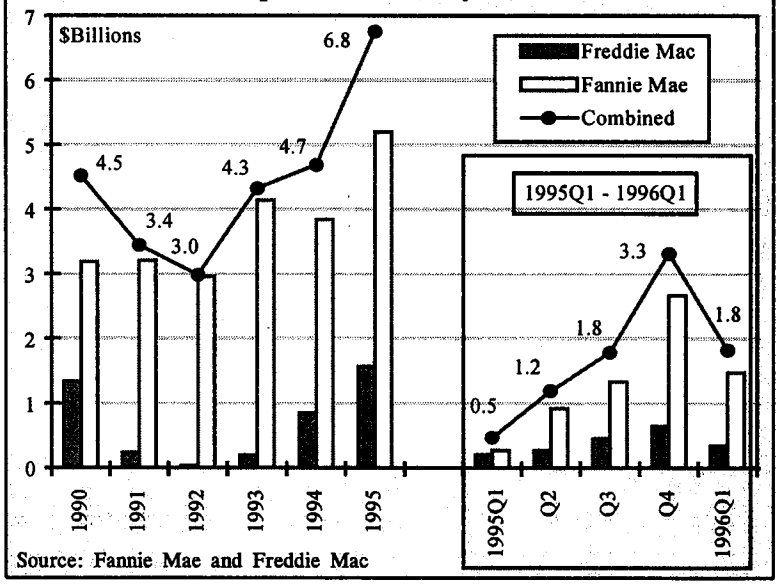
The market for new Real Estate Mortgage Investment Conduit (REMIC) and stripped MBS offerings continued to be extremely weak in 1995. Combined multi-class issues guaranteed by Fannie Mae and Freddie Mac

Figure 15
Enterprises' Purchases by Loan-to-Value Ratio



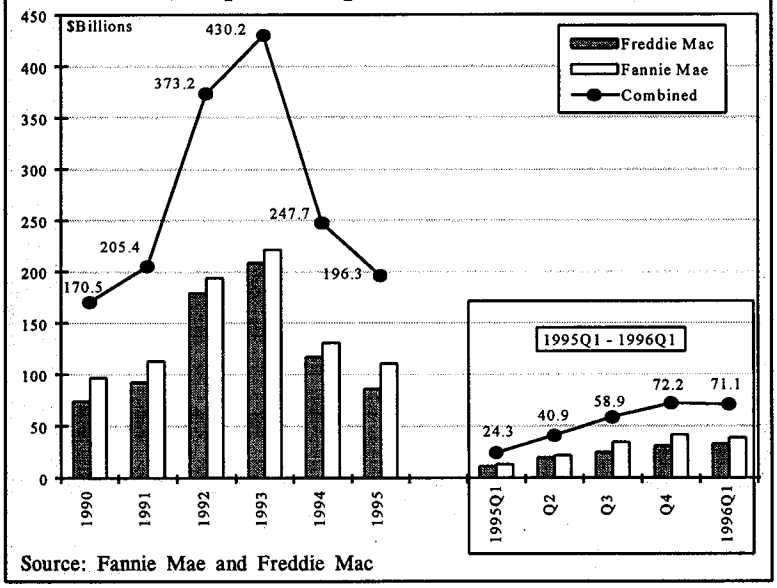
Source: Fannie Mae and Freddie Mac

Figure 16
Enterprises' Multifamily Purchases



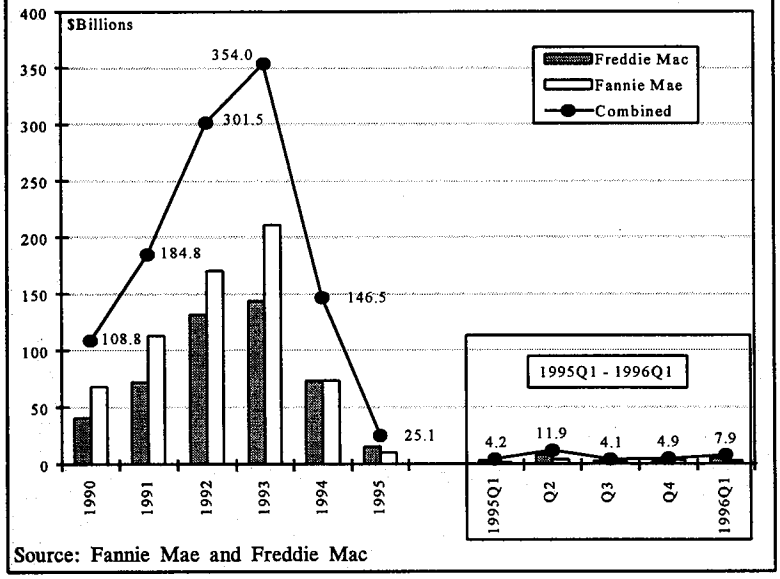
Source: Fannie Mae and Freddie Mac

Figure 17
Enterprises' Single-Class MBS Issuances



Source: Fannie Mae and Freddie Mac

Figure 18
REMIC and Stripped MBS Issuance



Source: Fannie Mae and Freddie Mac

dropped 83% from 1994 (and 93% from 1993) to the lowest level since 1987, the year in which the Enterprises began issuing such securities in significant volumes (*see Figure 18*). New issuances came to a virtual standstill in the first quarter, rebounded somewhat in the second quarter (when Freddie Mac issued $6.4 billion in REMICs backed by seasoned ARMs sold by Home Savings), but returned to very low volumes in the second half of the year. A modest increase in early 1996 suggests some improvement in the market's receptivity to these instruments.

Financial Performance and Condition of the Enterprises

Profits Are High But Rising Less Rapidly

Fannie Mae and Freddie Mac recorded another year of record profits in 1995, with a combined net income of $3.2 billion. Earnings at each Enterprise grew at lower rates in 1995 than in recent years, however. Freddie Mac's net income grew by 11%, the smallest percentage rise in 5 years. Fannie Mae's grew only marginally, due to a special $350 million pre-tax contribution to the Fannie Mae Foundation. Excluding the special contribution, Fannie Mae's net income also rose 11% for the year, its smallest percentage rise in a decade (*see Tables A and B for selected financial highlights*). Low origination volumes in the primary market in the first two quarters of 1995 limited purchase volumes and profit growth. Profits in the first quarter of 1996 were 19% and 15% higher than in the previous year's first quarter for Freddie Mac and Fannie Mae, respectively.

Growth in retained mortgage portfolios accounted for all of the increase in Freddie Mac's profits and most of the rise in Fannie Mae's (excluding the special contribution) in 1995. Although Fannie Mae's non-mortgage investments also rose significantly, the primary driver of asset growth and earnings at both Enterprises was the increasing proportion of mortgages financed with debt rather than securitized and sold to other investors (*see Figure 19*). Financing mortgages (or previously issued but repurchased mortgage securities) with debt generally earns the Enterprises more than securitizing loans, because spreads between mortgage yields and borrowing costs exceed MBS guarantee fees. However, financing mortgages with debt securities exposes the Enterprises to interest rate risk. Issuing long-term debt that is callable (or is equivalent to callable debt) and using other hedging techniques can limit this exposure to some degree, but at the cost of lower expected net interest income.

Table A

SELECTED FINANCIAL HIGHLIGHTS

FANNIE MAE

(DOLLARS IN BILLIONS)

	1996Q1	1995	1994	1993
EARNINGS PERFORMANCE:				
	(annualized)			
Earnings	$2.62	$2.14	$2.13	$1.87
Net Interest Income	$3.54	$3.05	$2.82	$2.53
Guarantee Fees	$1.15	$1.09	$1.08	$0.96
Net Interest Margin [1]	1.20%	1.16%	1.24%	1.38%
Average Guarantee Fee(bp) [2]	22.2	22.0	22.5	21.3
Return on Common Equity	23.8%	20.9%	24.3%	25.3%
Dividend Payout Ratio	32%	35%	31%	27%
BALANCE SHEET POSITION:				
Total Assets	$ 325.1	$ 316.6	$ 272.5	$ 217.0
Outstanding Debt	$ 306.8	$ 299.2	$ 257.2	$ 201.1
Mortgages:				
Retained Mtge. Portfolio	$ 261.5	$ 252.9	$ 220.8	$ 190.2
MBS (excl. MBS in Portfolio)	$ 521.1	$ 513.2	$ 486.3	$ 471.3
Retained as % of Total Mtgs. in Portfolio and MBS	33.4%	33.0%	31.2%	28.8%
Capital:				
Equity/Assets & MBS	1.34%	1.32%	1.26%	1.17%
Equity & Reserves/ Assets & MBS [3]	1.43%	1.41%	1.37%	1.29%

Source: Fannie Mae

[1] Taxable equivalent net interest income divided by average earning assets.

[2] Guarantee fees divided by average MBS outstanding net of MBS held in portfolio.

[3] Effective 1/1/95, reserves exclude valuation allowance related to impaired loans pursuant to SFAS 114.

Table B

SELECTED FINANCIAL HIGHLIGHTS

FREDDIE MAC

(DOLLARS IN BILLIONS)

	1996Q1	1995	1994	1993
EARNINGS PERFORMANCE:				
	(annualized)			
Earnings	$1.20	$1.09	$0.98	$0.79
Net Interest Income[1]	$1.70	$1.40	$1.11	$0.85
Guarantee Fees[1]	$1.07	$1.09	$1.11	$1.03
Net Interest Margin[1, 2]	1.25%	1.23%	1.25%	1.02%
Average Guarantee Fee(bp)[3]	23.5	23.8	24.1	23.8
Return on Common Equity	22.3%	21.9%	23.2%	22.2%
Dividend Payout Ratio	26%	26%	26%	27%
BALANCE SHEET POSITION:				
Total Assets	$143.8	$137.2	$106.2	$83.9
Outstanding Debt	$123.6	$119.3	$92.1	$48.5
Mortgages:				
Retained Mtge. Portfolio	$117.60	$107.70	$73.20	$55.90
MBS (excl. MBS in Portfolio)	$461.20	$459.00	$460.70	$439.00
Retained as % of Total Mtgs. in Portfolio and MBS	20.3%	19.0%	13.7%	11.3%
Capital:				
Equity/Assets & MBS	0.99%	0.98%	0.91%	0.85%
Equity & Reserves/ Assets & MBS[4]	1.10%	1.09%	1.04%	0.99%

Source: Freddie Mac

[1] Effective 1/1/96, Freddie Mac reports guarantee fees on retained MBS as guarantee fee income. Previously these fees were included in net interest income. However, for comparability with Fannie Mae, guarantee fee income on retained MBS for the first quarter has been estimated and included in net interest income rather than guarantee fee income.

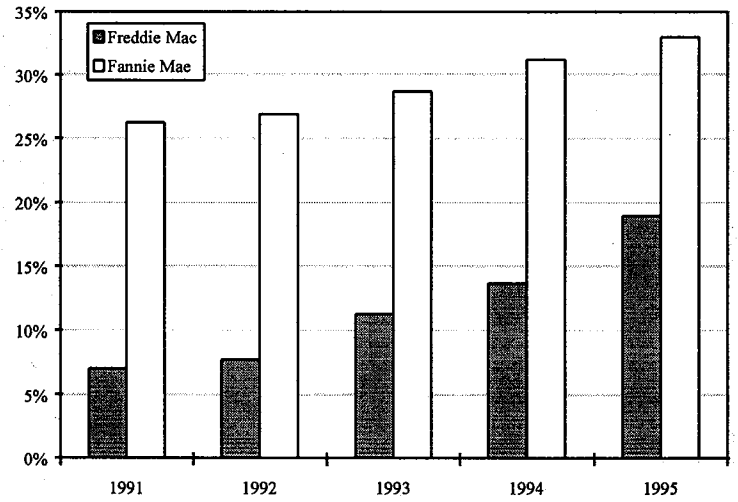
[2] Taxable equivalent net interest income divided by average earning assets.

[3] Guarantee fees divided by average MBS outstanding net of MBS held in portfolio.

[4] Effective 1/1/95, reserves exclude valuation allowance related to impaired loans pursuant to SFAS 114. Valuation allowance estimated for 1Q96.

Growth in net interest income from larger retained portfolios was more than enough to offset declines in REMIC and related securities fees at each Enterprise, and in MBS guarantee fees at Freddie Mac. The drop in REMIC fee income reflected the fall-off in new REMIC issuances by each Enterprise. Guarantee fee income declined slightly at Freddie Mac and rose only marginally at Fannie Mae. Fannie Mae's outstanding MBS held by investors grew slowly, and Freddie Mac's actually declined for the first time in more than twenty years (purchases for the retained portfolio and liquidations exceeded new issuances). Average guarantee fees declined at both institutions, principally because of an increase in the proportion of newly issued MBS for which the lender retained a portion of the default risk.

Figure 19
Retained Mortgages as a Share of Total Enterprise Mortgage Portfolios



Source: Fannie Mae and Freddie Mac

Profits at Fannie Mae and Freddie Mac have benefited in recent years from reductions in loss reserves, which have occurred despite increases in the volume of assets on which they bear credit risk. An accounting change made by the Enterprises three years ago excludes some types of anticipated future credit costs from loan loss provisions. Had earlier reserve ratios been maintained, pre-tax profits in 1995 would have been roughly $100 million lower for each Enterprise.

Each Enterprise's return on equity declined somewhat in 1995, but remained higher than returns on equity of most depository institutions and financial services firms. Return on common equity in 1995 was 21% for Fannie Mae (23%, excluding the special contribution) and 22% for Freddie Mac. By comparison, the average return on equity of commercial banks and savings institutions insured by the Federal Deposit Insurance Corporation was 15% and 9%, respectively, in 1995, a very good year by historical standards. Both Enterprises have earned returns on equity of more than 20% in each year since 1986. However, Fannie Mae's returns on common equity have declined in each year since 1990, and Freddie Mac's declined in 1995.

A firm can use profits to bolster capital or dividend payments to owners. In 1995, Fannie Mae and Freddie Mac each used its record profits to increase both capital and dividends. Fannie Mae increased its shareholder equity by 15% to $11.0 billion at year-end and its dividend payments by 13% to $741 million for the year as a whole. The proportion of that Enterprise's profits paid out in common stock dividends increased to 35%. Freddie Mac increased its shareholder equity by 14% to $5.9 billion and its dividend payments by 11% to $281 million.

Since mid-1995, the Enterprises have taken steps to give management flexibility to manage their capital positions in response to market conditions. In June 1995, Freddie Mac announced its intention to repurchase up to $200 million of common stock over the next year. In March 1996, Freddie Mac's Board authorized management to issue up to $500 million of preferred stock and to repurchase up to $1 billion in common stock. In December 1995, Fannie Mae announced its intention to issue $1 billion of preferred stock, the proceeds of which will be used to repurchase common shares, as well as a four-for-one split in its common stock and a Board authorization to repurchase an additional 6% of outstanding common stock. The Enterprises can use repurchases of common stock to return equity capital to shareholders during periods when investment opportunities do not offer attractive returns. This bolsters returns on common equity and supports the prices of common shares, at the cost of lower overall earnings and capital. Preferred stock issues are a cheaper source of equity funds than common stock, on which current shareholders expect a high rate of return. Preferred stock, however, also raises fixed costs to common shareholders, increasing the variability of common stock earnings.

Enterprises Continue to Meet Their Minimum Capital Requirements

Shareholder equity as a percentage of total assets and MBS sometimes is used as a measure of the Enterprises' capital positions. Both Fannie Mae and Freddie Mac increased this ratio in 1995. Fannie Mae's ratio has increased by nearly 30% since the end of 1992 (*see Figure 20*). Freddie Mac's ratio has risen by 18% over the same period. Improvements in this capital ratio do not, however, indicate that the risk the Enterprises pose to the federal government has declined. The ratio ignores the difference in the interest rate risk posed by securitizing mortgages or funding them with debt, and changes in reserves policies. More generally, the ratio does not take into account changes over time in each Enterprise's credit risk or interest rate risk exposure, or in the likely rates of future earnings. For these reasons, this capital ratio is a crude measure of the capital adequacy of the Enterprises.

Increases in capital achieved by the Enterprises in 1995 enabled them to continue to meet their minimum capital requirements throughout the year. The current standard, based on provisions in the Federal Housing Enterprises Financial Safety and Soundness Act of 1992, became effective in mid-1994. At year-end 1995, Fannie Mae exceeded its minimum requirement by $508 million, while Freddie Mac exceeded its requirement by $245 million. The statutory minimum capital requirements are much less sophisticated than the risk-based capital standard now being developed by OFHEO, but they do take into account the potentially large differences in risk between securitized mortgages and mortgage assets. Both Enterprises have consistently met the minimum standard since the end of 1992, shortly after the legislation providing for it was enacted (*see Figure 21*). OFHEO determined that the Enterprises remained adequately capitalized at March 31, 1996.

Assets Continue to Grow Rapidly

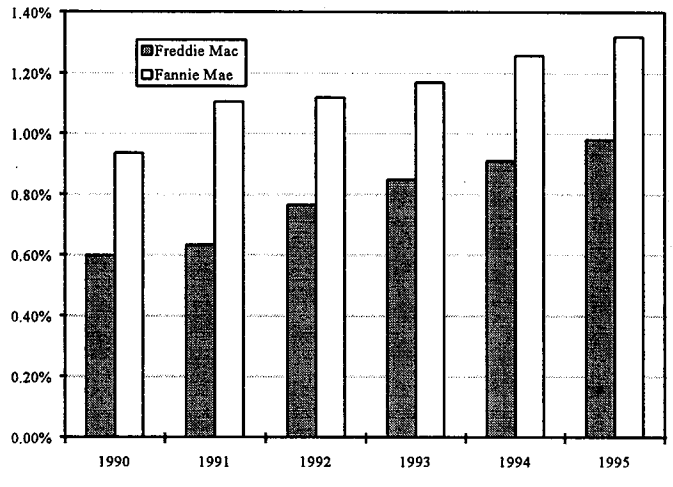
Freddie Mac's assets grew 29% and Fannie Mae's increased 16% in 1995. At year-end 1995, Fannie Mae had total assets of $317 billion, making it the largest corporation in the United States, in terms of assets, for the second year in a row. Freddie Mac's year-end 1995 assets totaled $137 billion, making it the nation's 13th largest firm in terms of assets (*Forbes*, April 22, 1996). Each Enterprise relied increasingly on purchases of mortgage securities to increase its assets (*see Box 6*).

Callable and Long-Term Debt Increase to Manage Interest Rate Risk

Continued rapid expansion of assets by Fannie Mae and Freddie Mac facilitates earnings growth but also increases each Enterprise's exposure to interest rate risk. The Enterprises manage the interest rate risk exposure

Figure 20

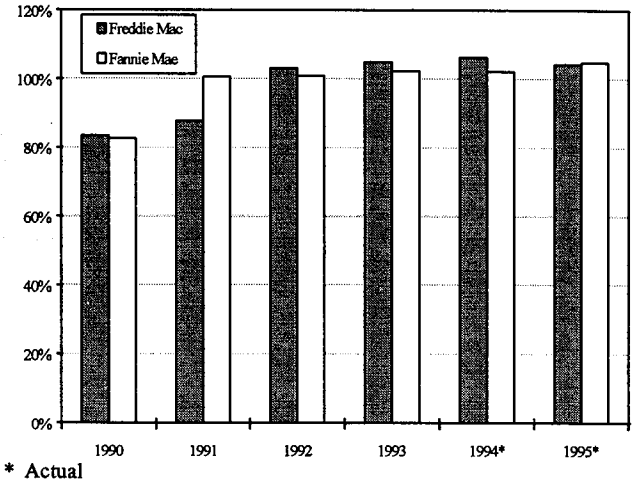
Equity as a Share of Total Assets and MBS



Source: Fannie Mae and Freddie Mac

Figure 21

Enterprises' Equity Capital as a Percentage of Actual and Estimated Permanent Minimum Capital Requirements



* Actual

Source: Fannie Mae, Freddie Mac and OFHEO

BOX 6: Enterprise Purchases of Mortgage Securities

Prior to 1994, Fannie Mae's and Freddie Mac's primary means of expanding assets was through purchases of whole mortgage loans. In the last two years, however, the Enterprises have increasingly bought their own mortgage-backed securities to increase their on-balance-sheet assets. The net effect of such a purchase is to add to on-balance-sheet assets and subtract from off-balance-sheet contingent liabilities. The transaction is similar to a purchase of whole loans that otherwise would be securitized, except that there is no change in an Enterprise's overall credit risk exposure. Purchasing mortgage securities is particularly advantageous in environments, like that of 1994 and the first three quarters of 1995, when the volumes of newly originated mortgages available for purchase are relatively low.

In 1995, increases in single-class MBS and REMICs accounted for 80% of the growth of Fannie Mae's mortgage assets. At year-end, mortgage securities comprised 28% of that Enterprise's mortgage holdings, up from 13% at the end of 1993. Freddie Mac increased its holdings of MBS and REMICs in 1995 by $32 billion, an amount that exceeded the increase in its total assets. At the end of 1995, mortgage securities accounted for 59% of that Enterprise's mortgage assets, up from 29% two years earlier.

associated with their retained mortgage portfolios in two ways: issuing long-term debt with embedded call options, and entering into derivative contracts that effectively create long-term debt that is callable or has downward rate-adjustment features. Long-term debt locks in funding costs for extended periods, protecting against declines in net interest income due to rising interest rates. When interest rates increase, the expected life of mortgage assets lengthens, and the cost of funding those assets rises, as maturing debt is replaced with higher coupon issues. Call options and their equivalents allow long-term debt to be refinanced prior to maturity or borrowing rates to be reduced. This protects against drops in net interest income due to falling interest rates, which lower the interest earned on mortgage assets as higher-yielding fixed-rate mortgages prepay more rapidly and are replaced by lower-yielding loans.

In 1995, both Enterprises increased their use of long-term debt (or its equivalent) in amounts roughly comparable to the growth in their holdings of long-term assets. Freddie Mac effectively funded 82% of its net new mortgage holdings with long-term debt. Fannie Mae's long-term debt additions exceeded its increase in mortgage assets, but it also purchased a large volume of intermediate-term asset-backed securities for its investment portfolio. At year-end, long-term liabilities of both Enterprises were near 80% of their long-term assets. This gives the Enterprises substantial protection against interest rate increases, but still leaves them somewhat vulnerable to very large rises in market yields. In extreme circumstances, with few prepayments, mortgages would be longer-lived than the Enterprises' long-term debt. Adjustable-rate loans, which comprise about one-eighth of each Enterprise's retained portfolio, would generate higher interest earnings that would mitigate losses, but losses on FRMs funded with short-term debt could be substantial.

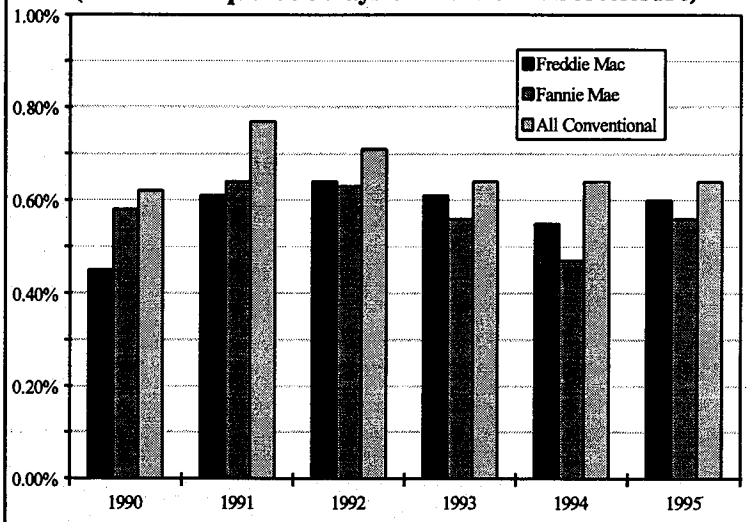
Fannie Mae and Freddie Mac also increased their use of call options (and their equivalents) last year, but by much smaller amounts than long-term debt. Only $16 billion of Freddie Mac's net increase in effective long-term debt, and just $4 billion of Fannie Mae's, was effectively callable. Each Enterprise's outstanding stock of call options continues to provide extensive protection against declines in interest rates. Still, reliance on non-callable long-term funding increased significantly at each Enterprise last year. The proportion of retained mortgages effectively funded with non-callable long-term debt increased at Freddie Mac to 21% and at Fannie Mae to 46%. Extreme declines in market yields would generate very rapid prepayment rates and reduce interest income far more than interest costs.

Each Enterprise's interest rate risk exposure depends not only on the debt mix — short-term, long-term, callable, and non-callable — but also on the characteristics of mortgage assets, the effective maturities of outstanding liabilities, derivative contracts, and other factors. OFHEO will be able to assess interest rate risk exposure more precisely when it has completed the financial simulation model that will be used to determine risk-based capital requirements for Fannie Mae and Freddie Mac. OFHEO also will employ the model to examine the Enterprises' performance under a wide variety of alternative interest rate environments.

Credit Quality Indicators Weaken Slightly

Credit performance of the mortgages financed by Fannie Mae and Freddie Mac deteriorated slightly in 1995. Mortgages are generally at greatest risk of loss during their third, fourth, and fifth years, so credit quality indicators in 1995 generally reflected the risk characteristics of loans purchased in the early 1990s. Delinquency rates of single-family mortgages financed by each Enterprise (based on the number of loans delinquent 90 days or more or in foreclosure) increased in all regions of the country last year (*see Figure 22*). Those rates edged up further in early 1996. The rise in delinquency rates was most pronounced in the West, which continues to experience economic weakness, especially in California. Delinquency rates for both firms moved toward the rate for all conventional loans, and returned to the levels of year-end 1993.

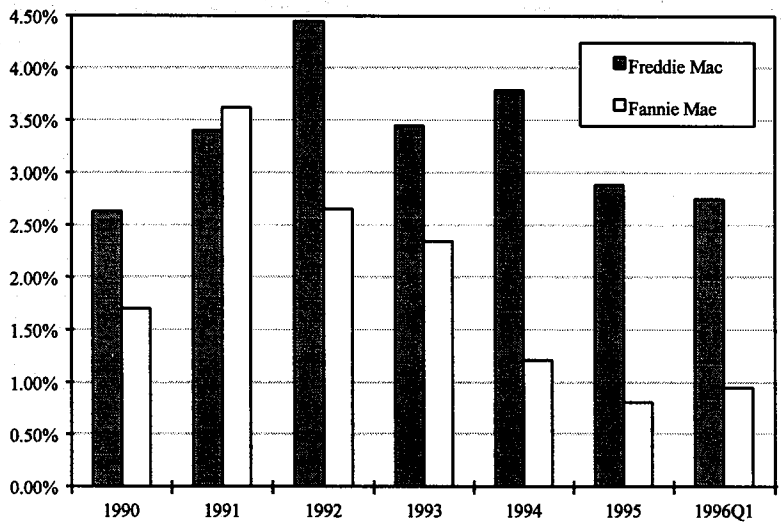
Figure 22
Single-Family Delinquency Rates
(Loans Delinquent 90 Days or More or in Foreclosure)



Source: Fannie Mae, Freddie Mac and the MBA

Increases in serious delinquency rates of single-family mortgages financed by the Enterprises were attributable in part to loans purchased in 1994. These increases are beginning to affect credit quality indicators. Freddie Mac has published data indicating that single-family mortgages purchased in 1994 have experienced higher early-payment (first-year) default rates than loans purchased in 1992-93. These higher default rates are attributed to the higher LTV ratios and deterioration in average borrower credit quality discussed above. Early-payment default rates are predictive of the relative lifetime default rates of mortgages originated in different years. Because the volume of mortgages purchased in 1994 was low relative to 1992 and 1993, the performance of the 1994 loans should have a smaller impact on future overall default rates. By year-end 1996, there will be sufficient performance statistics on 1995 purchases to estimate early-payment default rates for that year's business. OFHEO will continue to monitor how trends in the primary market affect the performance of mortgages purchased each year by each Enterprise.

Figure 23
Multifamily Delinquency Rates
(Loans Delinquent 60 Days or More)



Source: Fannie Mae and Freddie Mac

By contrast, general improvements in the multifamily market improved the performance of multifamily loans in 1995. The serious delinquency rate of multifamily mortgages fell significantly at each Enterprise (*see Figure 23*). In early 1996, multifamily delinquencies edged up at Fannie Mae, but dropped further at Freddie Mac.

Chargeoffs increased significantly at Freddie Mac and slightly at Fannie Mae last year. The rise in Freddie Mac's chargeoffs was due primarily to a larger number of acquisitions of foreclosed single-family properties in California and

certain areas in the Northeast, which experienced continuing economic weakness and declining average house prices. Freddie Mac's chargeoffs also rose because the Enterprise increased its use of foreclosure alternatives to handle single-family loan defaults. Foreclosure alternatives can reduce credit losses but tend to accelerate their accounting recognition (*see Box 7*). Total credit losses, including chargeoffs and expenses related to real estate owned, were one-tenth of one percent of mortgages owned or securitized by Freddie Mac and one-twentieth of one percent of loans owned or securitized by Fannie Mae.

BOX 7: Alternatives to Foreclosure

Historically, property foreclosure has been the primary means used by Fannie Mae and Freddie Mac to resolve uncured defaults (seriously delinquent loans on which the borrower has not become current on the payments). Over the past five years, the Enterprises have come to expect loan servicers to analyze borrower financial situations and commitments to properties, and to present a workout proposal if a borrower has a true and verified financial hardship. Enterprise staff evaluate these proposals and assure servicers that if an approved attempt to avoid foreclosure fails, they will be held harmless.

The two principal means of foreclosure avoidance used by the Enterprises are loan modifications and preforeclosure (short) sales. Loan modifications are chiefly used when interest rates have fallen and loans can be restructured to create payment schedules that are sustainable by borrower incomes. Freddie Mac also considers a debt restructuring at a below-market interest rate when it would be the most cost-effective alternative for the Enterprise. Freddie Mac authorized 1,700 loan modifications in 1995, when its program became fully operational. Modifications authorized by Fannie Mae fell from a high of 4,339 in 1994 to 2,911 in 1995, when the Enterprise began restricting this "workout" option to owner-occupied principal residences.

To avoid foreclosure, preforeclosure sales provide borrowers with a window of opportunity to market and sell properties on their own. The Enterprises generally approve these sales only with some guarantee of financial input from the borrower. This may be in the form of a promissory note to repay, over time, some or all of the loss incurred on the property. When this workout option succeeds, the sales yield higher proceeds than do post-foreclosure sales, foreclosure and holding costs are eliminated, and the Enterprises receive higher rates of repayment from borrowers than if they must resort to seeking post-foreclosure deficiency judgments in court. These workouts are not for all borrowers, however. Property deterioration sometimes precedes default, in which case the Enterprises can significantly lower losses by taking possession in foreclosure and then rehabilitating the property. Borrowers who have other alternatives, such as renting out the property, may be unwilling to pledge repayment of the financial assistance provided by the Enterprise or insurer in the preforeclosure sale. Fannie Mae authorized 4,030 preforeclosure sales in 1995, up from 3,417 in 1994. Freddie Mac approved about 3,700 sales in 1995, an increase from about 2,600 in 1994.

In recent years, loan modifications and preforeclosure sales appear to have yielded savings that have greatly exceeded the increases in costs that have accompanied failed workout attempts and subsequent foreclosures. Thus, each success appears to have saved enough money to support multiple failures. Because each Enterprise's apparent successes have greatly outnumbered its failures, the workout programs likely have mitigated overall losses. Successful workouts accelerate the accounting recognition of credit losses, since they take less time to complete than foreclosures.

There is risk in any loss mitigation program that generous offers of assistance could lead to increases in default-related losses. Fannie Mae and Freddie Mac have attempted to guard against such possibilities by screening for borrower hardship and typically requiring that borrowers contribute what they can to mitigate the final loss to the Enterprise. Fannie Mae and Freddie Mac also maintain direct control over borrower eligibility by giving approval to all or most workout requests made by loan servicers.

Another risk is that foreclosure alternatives that work well in relatively stable markets may perform poorly in extremely depressed circumstances, when they are needed most. The magnitude of this risk is more difficult to evaluate, but increased experience with these activities may provide some clues.

Chapter IV

OFHEO's Regulatory Activities

OFHEO's Regulatory Activities

In its third full year of operations, OFHEO conducted a variety of activities to fulfill its congressionally mandated mission. The Office completed examinations of credit and interest rate risk management at Fannie Mae and Freddie Mac, performed quarterly capital classifications of the Enterprises based on minimum capital requirements, and made substantial progress toward development of a stress test that will be used to set risk-based capital requirements. A description of these and other activities, including research and projects to support these functions, is provided in this section.

Examination of Fannie Mae and Freddie Mac

The Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (the Act) requires OFHEO to conduct annual, onsite examinations to ensure that Fannie Mae and Freddie Mac are operating in a safe and sound manner. The Act specifies that "the results and conclusions of the annual examinations" shall be submitted as part of OFHEO's Annual Report to Congress.

The Director also is required to include in the Annual Report to Congress a description of the adequacy of flood insurance procedures established by each Enterprise to meet recently enacted requirements as well as the degree of compliance with those procedures. The description must include the results and conclusions of any examinations determined necessary by the Director to evaluate the compliance of each Enterprise. In this reporting period, OFHEO determined that examinations were not necessary, but did conduct compliance reviews. The results of the flood insurance reviews are discussed later in this section.

Congress gave OFHEO authorities similar to those of other federal regulators of financial institutions – establish a risk-based capital standard, examine the safety and soundness of the Enterprises, and take prompt corrective action when required. The risk-based capital standard will ensure that the Enterprises have appropriate capital reserves, given their exposures to risk. Examinations complement that standard by verifying that the Enterprises have effective risk management and internal controls in place.

The profitability of the Enterprises depends on their ability to assume and manage risk. Principles of sound management should apply to the entire spectrum of risk. Establishment of a management structure that adequately identifies, measures, monitors, and controls risk is essential for safety and soundness. As a safety and soundness regulator, OFHEO's primary examination tasks are to identify, understand, and assess the risk management practices of the Enterprises, and to ensure that any deficiencies in risk management practices are addressed promptly by each Enterprise's board of directors and executive management. OFHEO continues to develop and refine its examination and oversight processes to focus on risk.

Examination Approach

The serious losses experienced by Orange County, Calif.; Barings, the British merchant bank; and Daiwa Bank of Japan reinforce the essential need for an examination approach that focuses on risk management and internal controls. Such an approach includes oversight of risk activities; accountability for risk taking; adequacy of risk measurement; and segregation of transaction, execution, and record keeping functions.

OFHEO's risk-focused approach enables the Office to assess the safety and soundness of the Enterprises' operations:

- **proactively** –before a breakdown in risk management results in depletion of capital;
- **effectively** – by concentrating efforts on risks that present critical exposures to the Enter prises; and
- **efficiently** – by allocating examination resources to their best advantage while mini mizing regulatory burden.

The successful implementation of this approach requires a full understanding of the current business of the Enterprises, as well as changes in the business environment in which they operate, and an accurate identification of the sources of risk to the Enterprises.

OFHEO has identified six major components of its risk-focused approach to examining Fannie Mae and Freddie Mac. These are: corporate governance, credit risk, interest rate risk, business risk, operations risk, and information technology risk. The Office recognizes the challenges posed by such dynamic and complex risks. OFHEO believes that a risk-focused approach for examinations represents a sound and effective means of assessing not only the risk management practices of the Enterprises, but also their ability to manage prospective risk exposures. OFHEO's examiners reconcile the quality of these risk management processes to the results of operations to verify that processes, systems, and controls operate as intended, within the full range of risk exposures assumed by the Enterprises.

During the 12 months ending in June 1996, OFHEO conducted onsite Risk Management Examinations covering two of the six risk components identified above: credit risk and interest rate risk. The Office also conducted Flood Insurance Compliance Reviews in accordance with the National Flood Insurance Reform Act of 1994. The results of these activities are described below.

Risk Management Examinations

The objective of the examinations was to assess the quality of risk management on a corporate-wide basis, focusing on the Enterprises' exposure to credit and interest rate risk in their operations. Risk management processes and internal controls were evaluated for their ability to identify, measure, monitor, and control credit and interest rate risk associated with new business and the existing balance sheet positions and off-balance-sheet risks.

Credit risk is the risk to earnings or capital rising from a counterparty's failure to perform as agreed under the terms of its contract. Counterparties include single-family borrowers, multifamily borrowers, and institutions. Institutional counterparties include companies that sell mortgages to, and service mortgages for, the Enterprises; mortgage insurers; and non-mortgage investment counterparties. Credit risk management was evaluated in the context of the Enterprises' ability to manage credit risk in loan purchase decisions and to mitigate and adequately reserve for loan losses.

Interest rate risk is the risk to earnings, capital, or the economic value of equity because of adverse movements in interest rates. Interest rate risk is concentrated in the Enterprises' mortgage portfolios. Interest rate risk management was evaluated in the context of asset/liability management. The review of interest rate risk management encompassed the asset, liability, and off-balance-sheet portfolios and the processes employed in the management and oversight of these portfolios.

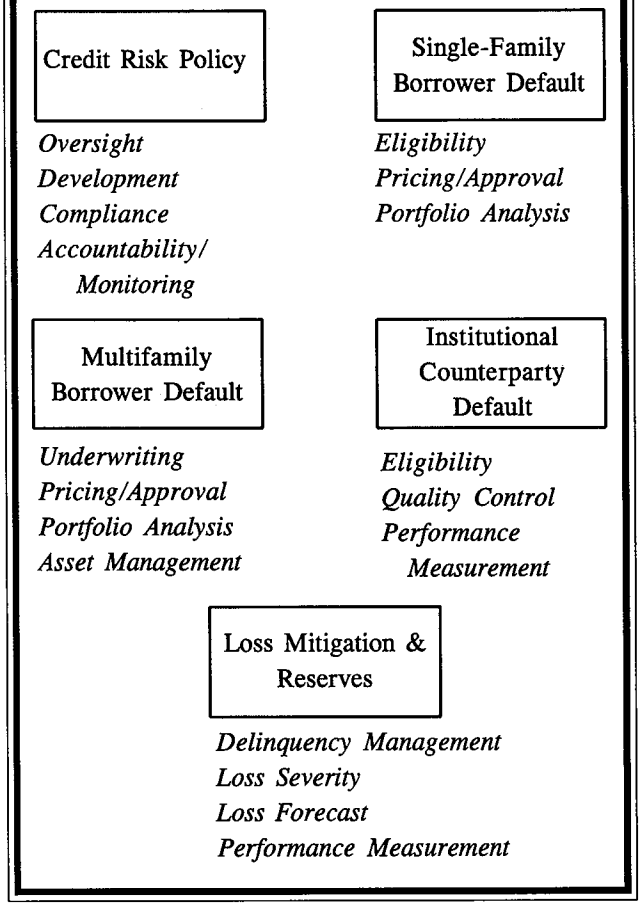
Examiners interviewed Enterprise staff responsible for risk management activities. Documentation analyzed included management reports, as well as board and management committee minutes and report packages. Examiners also reviewed and analyzed the reports and workpapers of internal and external auditors. Findings were confirmed with management.

OFHEO developed conclusions on the quality of risk management processes and internal controls. These conclusions, and comparisons with best practices within related financial industries, formed the basis for OFHEO's recommendations for correcting any deficiencies that were found. Exit conferences that reviewed OFHEO's conclusions and recommendations were conducted with the senior management of each Enterprise, and reports of examination were distributed to all members of the boards of directors. OFHEO's examinations will be discussed with each respective board at its June meeting. OFHEO will follow up to ensure satisfactory response to all recommendations.

Credit Risk Management

The credit risk portion of the examinations focused on the functional areas and associated risk management processes and controls shown in *Figure 24*.

Figure 24
Functional Areas of Credit Risk Management



Credit Risk Policy

The development of credit policy is a critical control technique that ensures consistency between the credit philosophy and vision of the board and senior management, and the actions of personnel responsible for credit decisions. The examinations verified whether the Enterprises fulfilled their oversight obligation by defining, documenting, and communicating their credit goals and objectives. Another important credit policy control element is the establishment of accountability. OFHEO determined whether the Enterprises had granted appropriate levels of authority for developing and approving mortgage credit policies. OFHEO also assessed the Enterprises' processes for monitoring compliance with credit policy.

Single-Family Borrower Default

Minimum eligibility standards for single-family borrowers limit the credit risk assumed by Fannie Mae and Freddie Mac. These standards include maximum loan sizes and guidelines for loan-to-value (LTV) ratios, borrower debt ratios, and mortgage insurance. OFHEO verified that the Enterprises maintain eligibility standards to provide a sound framework for measuring and controlling default risk on mortgage purchases. OFHEO also examined how the Enterprises refined these controls by incorporating credit scores into their risk evaluation processes.

A critical component of credit risk management is the appropriate pricing and approval of assumed risk. OFHEO reviewed the calculation of break-even guarantee fees necessary to cover anticipated mortgage defaults, operating expenses, and the costs of capital. OFHEO verified that the Enterprises maintain control systems to achieve safety and profitability in guarantee fee pricing by comparing actual price performance to estimated break-even benchmark fees.

OFHEO also examined the Enterprises' systems for monitoring credit risk embedded in their portfolios. Portfolio analysis is necessary for early detection of credit risk issues. OFHEO examined the Enterprises' systems to monitor portfolio balances of high-risk products, such as high-LTV loans, loans to self-employed borrowers, and non-owner occupied homes.

Multifamily Borrower Default

The multifamily business is managed as a separate business by each Enterprise, because the risks presented by multifamily loans differ from those of single-family loans. Effective multifamily credit risk management requires the ability to identify property characteristics and servicing activities that will result in high quality investments and collateral, and reduce overall credit risk. Both Enterprises have adopted underwriting and servicing standards that analyze the capacity of the multifamily property to service the associated mortgage debt. OFHEO evaluated both the substance of the Enterprises' underwriting standards, and the processes by which the Enterprises formulate, develop, implement, and amend such standards.

As with single-family default risk, effective multifamily borrower default risk management must ensure that the

price paid for multifamily loans or the amount of guarantee fee charged will, in the long-term, be adequate to provide the investor with a desired return. OFHEO examiners analyzed developments, components, and underlying assumptions of the Enterprises' multifamily pricing models.

Multifamily portfolio analysis requires the abilities to collect, analyze, utilize, and report information pertaining to project and asset performance. OFHEO evaluated the Enterprises' abilities to manage multifamily delinquencies and mitigate losses, and to identify, monitor, and respond to potentially troublesome market trends. Effective multifamily portfolio analysis enables the Enterprises to identify and manage loans that are at risk of default and warrant increased risk management attention. In addition, the examiners assessed the Enterprises' internal policies and controls to determine whether such policies and controls ensure that asset management practices are conducted in a uniform manner and that critical asset-related information is collected, shared, and evaluated among the appropriate levels of management.

Institutional Counterparty Default

Eligibility standards and performance measures allow the Enterprises to control the credit risk associated with the institutional counterparties with which they conduct business. OFHEO verified that the Enterprises maintain effective eligibility standards for the counterparties with whom they transact business and monitor the performance of individual counterparty portfolios. For seller/servicers, these standards include both financial strength measures (e.g., minimum net worth) and loan portfolio performance requirements.

OFHEO also reviewed the Enterprises' quality control programs. Quality control programs sample the mortgage loans purchased from sellers and test for compliance with Enterprise standards and contracts. OFHEO verified that the Enterprises have established effective sanctions to deal with seller/servicer non-performance.

Loss Mitigation & Reserves

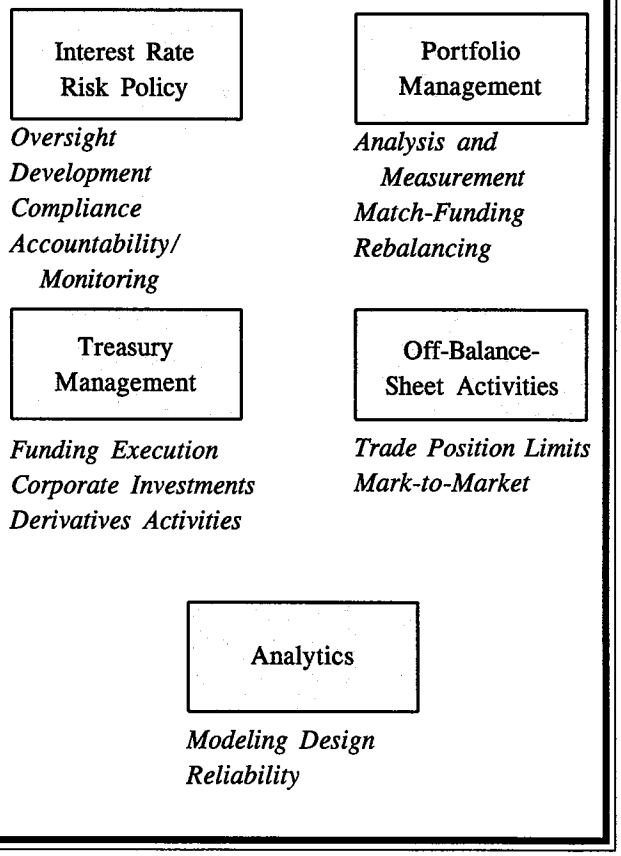
In an effort to minimize controllable losses on delinquent loans in the Enterprises' portfolios, senior management monitors and controls the risks associated with foreclosures and workout alternatives. OFHEO examined how management executes loss mitigation strategies to reduce loss severity and reviewed new programs being implemented to enhance management controls in this area.

Policies and procedures that ensure the adequacy of loss reserves are imperative. The examinations verified that methodologies and responsibilities for estimating future losses were well defined.

Interest Rate Risk Management

The interest rate portion of the examinations focused on the functional areas and associated risk management processes and controls shown in *Figure 25.*

Figure 25
Functional Areas of Interest Rate Risk Management



Interest Rate Risk Policy

Interest rate risk policy establishes the parameters within which management must optimize the risk/return trade-off. Effective interest rate risk policy establishes return objectives and quantifies risk con-

straints. Centralized, board approved, interest rate risk management policy development is important to obtain a common overall risk/return profile within the Enterprise. The examinations reviewed the nature and extent of board and senior management involvement in the oversight of interest rate risk management at the Enterprises. In particular, OFHEO focused on the framework used to communicate interest rate risk policies and objectives to management. In addition, the frequency, quality, and comprehensiveness of board reports relating to interest rate risk exposure and management were assessed.

Portfolio Management

Interest rate risk management is one of the primary responsibilities of the Portfolio Management departments at both Enterprises. OFHEO reviewed several dimensions of interest rate risk management in these departments. The examinations assessed the processes involved in the identification, analysis, control, and decision-making for mortgage-related asset purchases and the related funding/derivative transactions (i.e., "match-funding" decisions). OFHEO's interest at this level was in understanding how interest rate risk is managed on individual transactions ("tactical" interest rate risk management), including how the Enterprises identify and analyze funding alternatives. In addition to mortgage purchase transactions, the examinations analyzed the REMIC portfolio, the decision process for exercising debt calls, and non-mortgage derivative activities.

The processes involved in the measurement and management of interest rate risk in the Enterprises' mortgage portfolios ("strategic" or "global" interest rate risk management) also were reviewed. The primary risk measures used by each Enterprise, and the limits that are specified to control risk, were evaluated. OFHEO assessed the processes used to "rebalance" interest rate risk exposure as changes or potential changes in interest rates cause the risk position of the mortgage portfolios to shift.

Treasury Management

The Treasury management functions of both Enterprises are oriented to funding individual transactions. OFHEO assessed the processes for the identification and execution of transactions associated with funding the mortgage and non-mortgage investment portfolios. This included an evaluation of the use of derivatives in managing these portfolios. The examinations also evaluated the interest rate risk exposure presented by the Enterprises' non-mortgage investments and related funding.

Off-Balance-Sheet Activities

OFHEO reviewed the strategies, processes, and controls employed in the mortgage securities trading activities of the Enterprises. In addition, customer and dealer repurchase agreement activities, mortgage commitment processes, and risks associated with the securitized mortgage-backed securities (MBS) portfolios were analyzed.

Analytics

The interest rate risk management decision-making processes at the Enterprises are centered around quantified measurement of the risk/return profile. OFHEO reviewed the models employed in the analysis of interest rate risk in the Enterprises' mortgage portfolios. The models used to generate the primary risk measures at both Enterprises were studied in detail. The examinations also assessed the models that generate the supporting assumptions for the interest rate risk models, including term structure models and prepayment models. Also evaluated were the models used in the Enterprises' processes to determine optimal funding mixes at both the transaction and portfolio levels. Finally, OFHEO assessed the nature and quality of the internal control environments of the analytics functions at both Enterprises.

Results of the Risk Management Examinations

Freddie Mac

Freddie Mac's management of both credit risk and interest rate risk is strong. Management has established effective systems and processes for the identification, measurement, control, and monitoring of risk; and no material weaknesses were identified. The Board actively oversees credit and interest rate risk management activities. OFHEO made recommendations to improve controls in certain areas. Such improvements can be made in the normal course of business.

Credit Risk

The credit risk policy framework at Freddie Mac results in a comprehensive and consistent approach to credit risk management. Appropriate policies and controls are in place, and the policy development process provides an effective means of identifying and reacting to critical credit issues.

The risk management practices applied to default exposures on single-family loans provide for appropriate identification, measurement, control, and monitoring of risk. Multifamily risk management systems and processes effectively measure and control default risk. While Freddie Mac has, in general, effectively identified multifamily borrower default risk, OFHEO recommended minor improvements in systems to monitor credit risk in the multifamily portfolio.

Eligibility standards, financial performance monitoring, quality control, and onsite audits effectively control default risk of institutional counterparties. OFHEO recommended improved monitoring and reporting for credit enhancements provided by institutional counterparts. Freddie Mac effectively identifies and monitors non-performing loans, and the loss mitigation program has been improved to reduce the loss severity of loans that default. In addition, the process for establishing loan loss reserves is effective.

Interest Rate Risk

The interest rate risk policy and oversight framework at Freddie Mac results in a comprehensive and consistent approach to interest rate risk management. OFHEO made recommendations to enhance the policy framework and reporting structure. The portfolio and treasury management functions generally are effective. OFHEO made recommendations to strengthen data verification, to improve controls on certain types of transactions, and to expand internal reporting.

Off-balance-sheet activities are well-managed and associated controls are effective. Trading and mortgage securitization activities present minimal interest rate risk. Freddie Mac's analytic models used for interest rate risk management are methodologically sound and provide conservative estimates of interest rate risk. However, OFHEO made recommendations to strengthen the scope and timeliness of some of the models.

Fannie Mae

The quality of credit risk management at Fannie Mae is strong. While the quality of interest rate risk management is generally strong, certain aspects need to be strengthened. Management has established effective systems and processes for the identification, measurement, control, and monitoring of risk; and no material weaknesses were identified. OFHEO concluded that the Board of Directors, however, should require expanded reporting by management, and the Board should be more involved in setting broad policies. OFHEO also made recommendations to improve specific areas of oversight, risk management processes, and internal controls. Such improvements can be made in the normal course of business.

Credit Risk

The credit risk policy framework at Fannie Mae results in a comprehensive and consistent approach to credit risk management. Appropriate policies and controls are in place, and the policy development process provides an effective means of identifying and reacting to critical credit issues.

Management effectively oversees and controls the Enterprise's exposure to the risk of single-family borrower default. Comprehensive policies and systems are in place to identify, measure, and control the risk of default of multifamily borrowers. Management effectively applies these policies and systems in the conduct of multifamily business activities.

Institutional counterparty default risk is effectively controlled through eligibility standards, monitoring of financial condition, quality control procedures, and onsite inspections of counterparties' business operations. Fannie Mae's loss mitigation program has been effective in controlling the severity of credit losses and the process for establishing loan loss reserves also is effective.

Interest Rate Risk

Management has established effective operational policies and procedures for managing interest rate risk. However, the Board should formalize its guidance on the conduct of interest rate risk management, including the scope and frequency of reporting. The Board also should clarify the roles and responsibilities of its committees with respect to interest rate risk.

Senior management effectively manages mortgage portfolio operations. Internal controls, however, should be strengthened by establishing an independent review process for certain key functions in the management of the mortgage portfolio, and by completing the documentation of critical functions and processes. Expanded analysis would strengthen the measurement of portfolio sensitivity to large interest rate movements. Mortgage purchase and funding transactions are well-managed.

The interest rate risk in treasury operations, which includes the management of the non-mortgage investment portfolio, derivatives, and funding executions, is well-managed, resulting in minimal risk to Fannie Mae. The interest rate risk resulting from off-balance-sheet activities, including trading operations and securitized mortgages (MBS), presents minimal interest rate risk exposure. Finally, the analytical models used in the management of interest rate risk are adequate. OFHEO recommended that management fully implement its corporate initiatives to strengthen analytical capability.

Flood Insurance Compliance Reviews

The Flood Disaster Protection Act of 1973 (1973 Act) directs bank, thrift, and credit union regulators to issue regulations prohibiting regulated lending institutions from extending loans to borrowers whose collateral is located in a Special Flood Hazard Area (SFHA) without adequate flood insurance. The 1973 Act also prohibits any form of financial assistance by federal programs, or by federally supervised, regulated, or insured agencies (specifically defined as including Fannie Mae and Freddie Mac) to borrowers with properties located in SFHAs that do not carry adequate flood insurance.

Losses sustained during Hurricane Andrew in 1992 and the serious floods along the Mississippi River in 1993 demonstrated that improved compliance with the 1973 Act was needed. Congress amended flood insurance law to improve compliance. Among other provisions, the National Flood Insurance Reform Act of 1994 (1994 Act) requires the Enterprises to implement procedures that are reasonably designed to ensure that adequate flood insurance is in place over the term of the loan for loans purchased after September 28, 1995 that are collateralized by buildings located in SFHAs. This requirement also applies to properties that are re-mapped into SFHAs during the term of the loan. The amount of flood insurance required is the lesser of the outstanding principal balance of the loan or the maximum limit of coverage made available under the Act with respect to the particular type of property.

Results of the Flood Insurance Compliance Reviews

In February and March of 1996, OFHEO conducted flood insurance reviews of each Enterprise's compliance with the 1994 Act. The reviews focused on analysis of Enterprise policies and procedures relating to the 1994 Act. OFHEO also reviewed documentation of pertinent processes and reports and assessed each Enterprise's internal audit program for testing controls. Because the procedural requirements of the 1994 Act only became effective in September 1995, the reviews assessed the progress of each Enterprise in meeting these new requirements.

Freddie Mac

OFHEO determined that Freddie Mac has established adequate policies and procedures under the 1994 Act and is complying with them. Freddie Mac's policies and procedures are effective for communicating requirements related to flood insurance. Additionally, internal controls established by Freddie Mac for flood insurance compliance provide the Enterprise with reasonable assurance that appropriate insurance is in place where required.

The 1994 Act states that the Enterprises shall not purchase a loan secured by a property in a SFHA unless that loan has insurance in an amount specified by the National Flood Insurance Plan. In response to our review, Freddie Mac recently has incorporated into its quality control procedures a process to independently verify that sufficient coverage is maintained on loans that require flood insurance. OFHEO will follow up on Freddie Mac's efforts in this area.

Fannie Mae

OFHEO determined that the policy and procedure framework being implemented by Fannie Mae with respect to flood insurance requirements under the 1994 Act is adequate. Fannie Mae's policies and procedures are effective for communicating requirements related to

flood insurance. Additionally, internal controls currently being developed by Fannie Mae appear adequate to provide the Enterprise with reasonable assurance that appropriate insurance is in place where required.

Fannie Mae is implementing its flood insurance program by creating mechanisms to test for, and correct, seller/servicer noncompliance. The results of this testing, and of Fannie Mae's follow-up procedures, are not yet available. OFHEO will monitor the implementation of the compliance program and follow up on the results of the Enterprise's efforts in this area.

Capital Classification and Regulation of Fannie Mae and Freddie Mac

Under the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (the 1992 Act), OFHEO must determine, not less than quarterly, the capital adequacy of Fannie Mae and Freddie Mac. Currently the Enterprises must hold sufficient capital to meet a quarterly "minimum capital" standard. OFHEO has classified Fannie Mae and Freddie Mac as "adequately capitalized" under the minimum capital standard in each quarter beginning with the quarter ending June 30, 1993. Eventually the Enterprises will be required to hold sufficient capital to meet both a minimum and a risk-based capital standard. OFHEO will begin determining capital adequacy according to both minimum capital and risk-based capital standards one year following OFHEO's issuance of a final regulation covering risk-based capital.

Minimum Capital

Minimum capital levels establish an essential amount of capital that an Enterprise with given levels of business must hold to address broad categories of risk. Minimum capital is computed on the basis of capital ratios specified in the Act that are applied to certain defined on-balance-sheet assets and off-balance-sheet obligations of the Enterprises. The ratios are: 1) 2.50% of aggregate on-balance-sheet assets; 2) 0.45% of the unpaid principal balance of outstanding MBS and substantially equivalent instruments; and 3) 0.45% of other off-balance-sheet obligations, except as the OFHEO Director adjusts the ratio to reflect differences between the credit risk of such obligations and MBS.

Since its inception, OFHEO has applied interim administrative procedures for computing the Enterprises' minimum capital levels. These procedures use statutory ratios for all but one class of off-balance-sheet obligations – interest rate and foreign exchange rate contracts. OFHEO will continue to compute the portion of the minimum capital level attributable to these contracts according to the interim procedures until the final minimum capital regulation is published and becomes effective later this year. After that time, OFHEO expects to compute the Enterprises minimum capital requirements on the basis of its final minimum capital regulation.

Risk-Based Capital

OFHEO's second capital adequacy standard is risk-based. It is based on a determination of the amount of capital necessary for an Enterprise to withstand a severe interest rate shock together with adverse credit conditions over a 10-year period, plus an additional 30% of that amount to address management and operations risk.

The Enterprises' required levels of risk-based capital will be determined using a stress test that is currently under development. In February 1995, OFHEO published an Advance Notice of Proposed Rulemaking (ANPR) announcing OFHEO's intention to develop and publish a risk-based capital regulation and soliciting public comment on a variety of issues related to that regulation. In June 1996, OFHEO published the first of two Notices of Proposed Rulemaking (NPRs) on risk-based capital, addressing two key components of the stress test: 1) the methodology for establishing the benchmark loss experience, which defines the basis for determining Enterprise credit losses in the stress test; and 2) the use of OFHEO's House Price Index (HPI) to estimate changes over time in the values of single-family properties securing Enterprise mortgages.

The second NPR will address all remaining aspects of the risk-based capital regulation. OFHEO seeks to design the stress test so that the incentives it creates closely reflect the relative risks inherent in the Enterprises' different activities. OFHEO intends to establish risk-based capital standards that promote prudent business practices and strategies, and that maintain the Enterprises' financial health so that they can continue to fulfill their public purposes.

Table C	
BENCHMARK LOSS EXPERIENCE	
States:	Arkansas, Louisiana, Mississippi, and Oklahoma
Percentage of U.S. Population:*	5.3%
Origination Years:	1983 and 1984
Loss Rate:	9.4%
Average 10-Year Default Rate:	14.9%
Average 10-Year Severity Rate:	63.3%
* Based on the percentage of 1985 U.S. population as estimated by the Bureau of the Census	

First Notice of Proposed Rulemaking

The first NPR represents the second step in an administrative process leading to a final rule establishing the mechanism for determining risk-based capital levels for Fannie Mae and Freddie Mac. OFHEO's first step in this process, the risk-based capital ANPR, was issued for a 120-day public comment period ending in June 1995. OFHEO received fifteen comments from a variety of interested parties including two Executive Branch departments, one financial institution regulatory agency, Fannie Mae and Freddie Mac, four trade groups, two mortgage banking firms, one rating agency, one thrift institution, one private mortgage research firm, and one individual. Comments ranged from a discussion of one or two specific issues to an extensive analysis of every question or issue raised in the ANPR. OFHEO considered, and will continue to consider, these comments in the development of its risk-based capital regulation.

Benchmark Loss Experience

The 1992 Act requires that OFHEO base credit losses during the stress test on the experience of loans suffering "the highest rates of default and severity of mortgage losses"..."in contiguous areas...containing an aggregate of not less than 5 percent of the total population of the United States...for a period of not less than 2 years." OFHEO terms this experience the "benchmark loss experience."

The benchmark loss experience describes the default and severity behavior of specific mortgage loans in a particular place and time, under a unique set of economic conditions. OFHEO expects actual stress test losses to differ from those of the benchmark due to differences between the current Enterprise portfolios and the benchmark loans, and between some of the stress test's economic conditions and those that affected benchmark loans.

The first NPR outlines OFHEO's proposed methodology for identifying the benchmark loss experience and the results of the application of that methodology. The methodology identifies groups of loans originated in alternative time and place combinations, and selects the group with the highest loss rate. All combinations include two or more origination years and contiguous states containing at least 5% of the U.S. population. The procedure uses available Enterprise historical loan-level data on 30-year fixed-rate mortgages secured by owner-occupied, detached, single-family houses. Recognizing the distinct character of the businesses of the two Enterprises, particularly in the last decade, the methodology computes each Enterprise's default and severity rates separately. For each candidate time and place combination, OFHEO proposes to compute a loss rate by multiplying the average default rate by the average severity rate.

Table C highlights some of the principal characteristics of the benchmark loss experience identified by applying the proposed methodology. Severity and loss rates are not adjusted for proceeds from mortgage insurance, which averaged about one-fourth of the losses on these loans. OFHEO compared these results with other loss experiences. For example, Texas loans originated in the

early 1980s are often referenced as a high-water mark for severe mortgage loss experience. However, using OFHEO's proposed methodology and data to identify a benchmark loss experience, the worst loss rate for the entire state of Texas was 7.3% for loans originated in 1982 and 1983. This was the case even though the loss rates in some areas of the state for these years were significantly higher.

To further illustrate the level of credit stress represented by the benchmark loss experience, OFHEO compared the benchmark loss rate with the levels of loss coverage rating agencies require when they rate privately issued MBS collateralized by similar loans. The credit stress in the benchmark loss experience corresponds roughly to the coverage requirements for a mortgage-backed security to obtain a rating of double-A.

While the benchmark loss experience lends itself to a comparison with credit ratings, the overall stress test will not. The rating agencies do not base their ratings of companies exclusively on a stress test. While they may use a stress test approach to evaluate portfolio credit risk, they evaluate many other risk factors, including interest rate risk, more subjectively than OFHEO is required to do under the 1992 Act. For this reason, OFHEO will be unable to estimate a rating equivalent of other components of its risk-based capital stress test or of the overall standard.

The benchmark loss experience represents patterns of defaults and severities for a subset of the most prevalent mortgage product in the Enterprises' portfolios, under the economic conditions experienced in the eastern region of the oil patch from 1983 to 1994. The stress test must simulate losses for all the Enterprises' products on a nationwide basis. OFHEO intends that the stress test will subject different product types, such as adjustable-rate single-family mortgages and multifamily mortgages, to levels of stress comparable to those of the benchmark loss experience.

Even for mortgage products that existed in the benchmark period and area, the stress test will have to calculate credit losses for many loans with risk factors not reflected in the benchmark data sets, for example, loans with particularly high current loan-to-value (LTV) ratios or loans more than 10 years old. Furthermore, the stress test will subject the Enterprises to economic circumstances that differ in some respects from those experienced by the benchmark loans; for example, the stress test's interest rate scenarios differ from the interest rate patterns of the benchmark time period. Where required by the Act or otherwise appropriate, OFHEO intends to reflect in stress test losses the impact of different product risk characteristics and circumstances, analyzing historical data to determine appropriate ways to calculate the impact of these differences. The stress test will also take account of mortgage insurance and other credit enhancements.

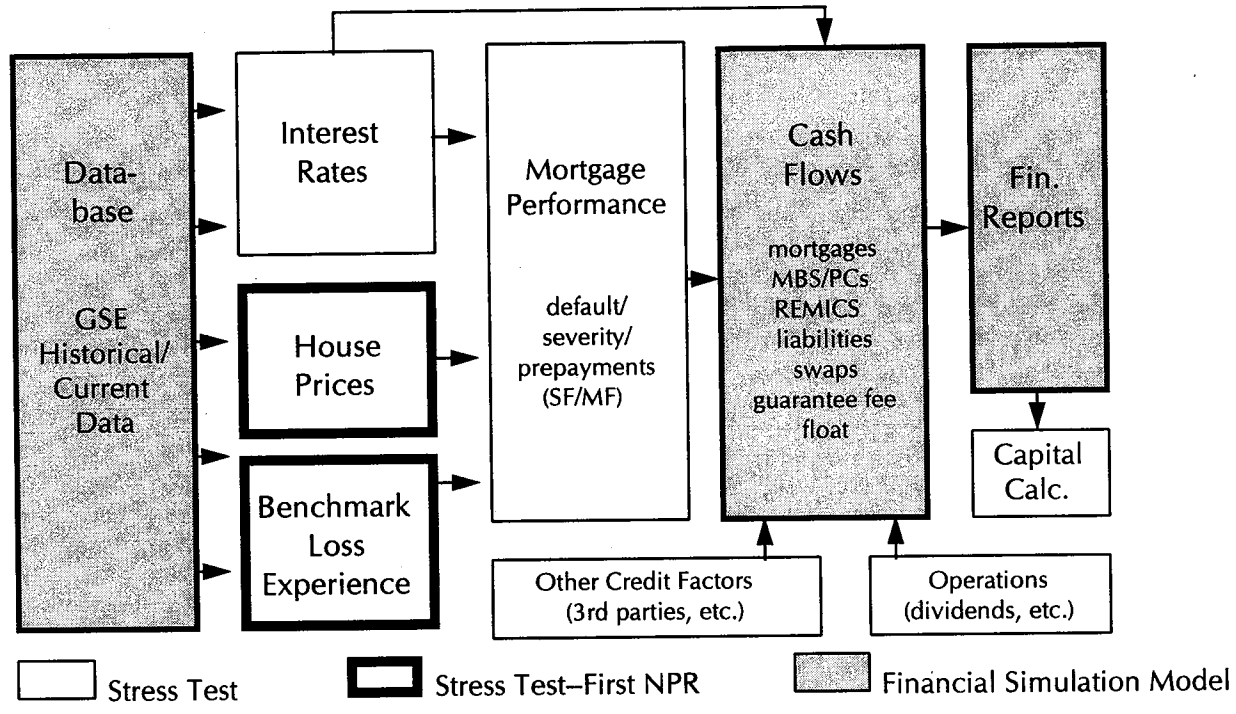
House Price Index

The 1992 Act prescribes the use of house price indexes to account for changes in the LTV ratios of the mortgages owned or guaranteed by the Enterprises, which will affect losses in the risk-based capital stress test. Changes in property values must be determined in accordance with the constant quality home price index published by the Secretary of Commerce or an alternative index of "similar quality, authority, and public availability." The NPR proposes that OFHEO will use its HPI as the basis of measuring changes in single-family property values in the stress test.

OFHEO is estimating and publishing quarterly house price indexes for single-family detached properties using data on conventional conforming mortgage transactions obtained from Freddie Mac and Fannie Mae. The house price indexes published by OFHEO are referred to collectively as the HPI. OFHEO commenced publication of the HPI in March 1996. Quarterly house price indexes are reported for the nation, the nine U.S. Census divisions, and the 50 states and the District of Columbia. The HPI is scheduled for release approximately two months after the end of each quarter. The national index is a weighted combination of the nine Census division indexes based on the distribution of owner-occupied households in the 1990 Census of Population and Housing.

The HPI is estimated using repeat observations of housing values for individual single-family residential properties on which at least two mortgages were originated and subsequently purchased by either Freddie Mac or Fannie Mae since January 1975. As of December 1995, there were over 7.7 million repeat transactions in the national sample. The use of repeat transactions on the same physical property units helps to control for differences in the quality of the houses comprising the sample used for statistical estimation. For this reason, the HPI is described as a "constant quality" house price index.

Figure 26
Stress Test Components



The HPI is more appropriate than the Commerce Department index for estimating price changes on single-family properties securing Enterprise loans because it is based on values of precisely such properties. More specifically, the HPI is produced using data on single-family detached properties financed by conforming conventional mortgages purchased by the Enterprises. Thus, mortgage transactions on attached and multi-unit properties, properties financed by government-insured loans, and properties financed by mortgages exceeding the conforming loan limits determining eligibility for purchase by Freddie Mac or Fannie Mae, are excluded. The HPI is updated each quarter as additional mortgages are purchased by the Enterprises and used to identify additional repeat transactions for the most recent quarter and all previous quarters.

The means by which OFHEO's HPI will be used to account for changes over time of the LTV ratios of mortgages in the stress test are not specified in the statute. In general, a house price index provides the information necessary to compute the average percentage change in property values between any two dates falling within the time period covered by the index. However, the accuracy of the adjustments to value will depend on the accuracy of the index for the particular market area in which a given property is located, and variation in individual house price changes around the estimated market index. OFHEO is examining a number of ways in which to apply the HPI in the stress test, in conjunction with the development of econometric models of mortgage default and prepayment.

OFHEO Research

OFHEO's research activities provide the basis for the development of risk-based capital standards for Fannie Mae and Freddie Mac and serve to enhance OFHEO's understanding of the operations and risks of these companies and the markets in which they operate. For the past year, the focus of OFHEO's research has been the development of the risk-based capital stress test - the simulation of the Enterprises' financial performance under specified conditions of economic stress. Stress test development efforts have been divided between the stress test as discussed in the 1992 Act, and a financial simulation model (FSM) – the infrastructure

needed to actually run the test – which the 1992 Act does not directly address. With respect to the former, OFHEO's job is to determine the details of the credit and interest rate stresses and their impact on Enterprise mortgages and operations. The FSM, on the other hand, is a series of interlocking computer programs and models that OFHEO is creating to simulate the cash flow and accounting operations of the Enterprises.

Figure 26 illustrates the components of the stress test and their interrelationships. The unshaded components represent aspects of the stress test referenced in the 1992 Act. Components of the FSM – database, cash flows, and financial reports – are shaded gray.

Financial Simulation Model (FSM) Projects

The following section describes projects associated with the FSM that are either substantially complete or where OFHEO has made substantial progress to date. The headings correspond to the shaded stress test components shown in *Figure 26*.

Cash Flows

Interest rate risk at Fannie Mae and Freddie Mac stems primarily from the effect of market yields on the timing of principal payments on the mortgages and the mortgage-backed securities that the Enterprises hold in portfolio. Each Enterprise hedges much of this interest rate risk by issuing long-term liabilities with embedded call options, and by buying interest rate derivatives such as caps, floors, and collars. To capture the effect of dramatic interest rate increases and decreases on the earnings of the Enterprises, OFHEO must accurately represent the optionality that is embedded in the mortgages and the mortgage-backed securities, as well as the liabilities and derivative securities funding the portfolio.

To model optionality, OFHEO has developed Fixed Income and Derivative Analysis Software (FIDAS), a software tool that permits the Office to "reverse engineer" complex fixed-income securities. Reverse engineering is a process in which each complex security is broken down into its simpler component parts. FIDAS is a specialized programming language that uses pre-defined procedures to simulate the performance of these component parts.

With FIDAS, OFHEO can model almost all fixed-income securities or derivatives. This includes individual tranches of Real Estate Mortgage Investment Conduits (REMICs), generally recognized as the most complex fixed-income securities. FIDAS also models securities such as debt with embedded call options; step-up callable debt, where the coupon rises on each call date when an Enterprise chooses not to exercise its option; and interest rate swaps, caps, floors, and collars. The software can generate accurate cash flows under any interest rate scenario.

FIDAS generates cash flow streams for the FSM for REMICs, complex debt issues, and the derivatives that Fannie Mae and Freddie Mac purchase and issue to hedge interest rate risk. Using these cash flow streams, and the cash flow streams from the rest of each Enterprise's book of business, the FSM projects income and expenses over the period of the stress test and allows OFHEO to determine the Enterprise's risk-based capital requirement.

Financial Reports

The stress test will determine how much capital an Enterprise would need initially to maintain positive capital during the simulated 10-year stress period. To determine an Enterprise's capital position during the stress period, OFHEO has developed the prototype Financial Reporting and Decision Software (FRDS) to project the balance sheet and income statements of the Enterprises during the stress test.

The primary function of the prototype FRDS is to process cash flows for each of the asset, liability, and off-balance-sheet items; estimate taxes; and project balance sheet and income statements for each month of the 10-year stress period. FRDS generally books cash flows in accordance with Generally Accepted Accounting Principles (GAAP).

The final version of FRDS will incorporate decision rules for dividends, administrative expenses, terms of new debt issuances (to the extent that assets remain on the books longer than the liabilities funding them), and the characteristics of new investments (to the extent that liabilities remain on the balance sheet longer than the assets they were funding).

Database

OFHEO's risk-based capital stress test must treat assets, liabilities, and off-balance-sheet obligations of both Enterprises equally and consistently. The most efficient way of doing this is to translate both Enterprise balance sheets into comparable standardized terms and units, that is, to "normalize" them and run them through a single model.

There are two separate processes involved in normalizing the Enterprises' data. First, their accounting treatments must be normalized, that is, OFHEO must develop similar charts of accounts for each company. This project is complete and is the accounting basis for the FRDS. The second normalizing process involves translating the Enterprises' actual data files into consistent OFHEO data sets to support stress test research. The development of consistent OFHEO data sets will also support examinations and offsite monitoring of the Enterprises.

The size and complexity of the Enterprises' data files make this a substantial undertaking. The task is further complicated by the differences in the way that the Enterprises record and report their information. To date, OFHEO has made significant progress toward creating standardized data sets for several of the subject areas we are researching, such as single-family mortgage data, REMICs, and liabilities.

Stress Test Projects

The following section describes projects associated with aspects of the stress test addressed by the 1992 Act. Again, the headings correspond to the unshaded stress test components shown in *Figure 26*.

Mortgage Performance

Single-Family Fixed-Rate Mortgage Default and Prepayment

OFHEO is developing econometric models for simulating the default and prepayment behavior of single-family fixed-rate mortgages. OFHEO's approach to modeling default and prepayment should facilitate calibrating the default and prepayment model to the benchmark loss experience, while allowing the use of data from a much larger sample of Enterprise mortgages to enhance the statistical integrity of the model. The approaches being investigated consider the value of default and prepayment options to borrowers resulting from changes in housing values and interest rates. In addition, OFHEO also is investigating the impact of variables such as mortgage age, original LTV, relative loan size, season of the year, owner occupancy status, origination year, original note rate, the history of interest rates, and the slope of the yield curve.

ARM Default and Prepayment

The 1992 Act requires the stress test to reflect differing risk characteristics of various mortgage types. OFHEO is developing and analyzing two approaches to address the differences between the default and prepayment behaviors of adjustable-rate mortgages (ARMs) and fixed-rate mortgages (FRMs). The first approach relates the termination patterns of ARMs to 30-year, fixed-rate loans through the use of multipliers. The second approach estimates probabilities of ARM default and prepayment with specific consideration of the unique characteristics that distinguish ARMs from fixed-rate mortgages, such as the payment shocks created by interest rate changes.

Single-Family Mortgage Loss Severity

OFHEO is reviewing and analyzing two distinct methods for simulating loss severity of single-family mortgages in the stress test. The first technique uses historical data to predict total loss severity given a variety of variables that are consistent with OFHEO's default and prepayment model. The second method calculates severity as a sum of estimates of its various underlying components (e.g., foreclosure costs, disposition costs, and sales prices).

Multifamily Default and Prepayment

The credit and payoff risk of multifamily loans is one of the least explored areas of mortgage risk analysis. A major problem has been the lack of historical data on loan performance. OFHEO has been developing multifamily databases and using them to estimate models that simulate default and payoff risk for the multifamily loans acquired or guaranteed by the Enterprises. OFHEO has constructed a historical database including virtually all conventional multifamily loans acquired or guaranteed by the Enterprises since they entered the market in 1983 (approximately 40,000

observations). OFHEO has used these data to estimate default and payoff models for various multifamily loan products (e.g., FRMs vs. ARMs).

Multifamily Loss Severity

Multifamily loss severity, the dollar loss associated with each defaulted mortgage, is the second element (after default) of multifamily credit risk. OFHEO has obtained and analyzed all available data from the Enterprises on multifamily loss severity. OFHEO has compared the results of its analysis of Enterprise experience with that of other institutions that originate or analyze multifamily loans, including those of state housing finance agencies and the credit rating agencies. As with single-family loss severity, OFHEO may develop an overall estimate of multifamily loss severity, or consider separately the components of multifamily loss severity, including sales proceeds, other revenue, foreclosure costs, disposition costs, and carrying costs.

Interest Rates

OFHEO has been using its yield curve model to explore various approaches to simulating interest rates in the stress test consistent with the requirements of the Act. The model generates consistent spot and implied forward interest rates for any Constant Maturity Treasury yield curve. It also replicates historical Treasury yield curves, simulates Treasury yield curves that relate to historical curves in a variety of ways, and permits the simulation of other security yields and rate indexes corresponding to these curves.

Interagency Task Forces

OFHEO is a member of two government task forces: the Interagency Task Force on Fair Lending, and the Flood Insurance Interagency Task Force. These groups were established to formulate policy in two areas that affect the operations of Fannie Mae and Freddie Mac.

Interagency Task Force on Fair Lending

The Interagency Task Force on Fair Lending was formed to establish uniform policy against discriminatory lending. Other members of the group include HUD; the Department of Justice; the bank, thrift, and credit union regulatory agencies; the Federal Housing Finance Board; and the Federal Trade Commission. The Task Force published a description of the general principles that agencies will use to identify violations of the Equal Credit Opportunity Act and the Fair Housing Act as the "Policy Statement on Discrimination in Lending" (59 Fed. Reg. 18266). During 1995, the Task Force met to review the public comments on its policy statement and the issues they raised.

Flood Insurance Interagency Task Force

The Flood Insurance Interagency Task Force was established by the National Flood Insurance Reform Act of 1994. The purpose of that statute is to ensure that lenders do not make loans on properties located within Special Flood Hazard Areas unless the buildings on such properties are covered by flood insurance for the term of the loans. The 1994 Act amends previous legislation that mandated flood insurance for affected properties in response to a low rate of compliance, as evidenced by losses sustained recently during Hurricane Andrew and the serious floods along the Mississippi River in 1993. Other federal agency members of the Task Force include HUD (the Federal Housing Administration), the Department of Veterans Affairs, the Federal Insurance Administration, the Department of Agriculture (Rural Housing Services), the Small Business Administration, the Farm Credit Administration, and the Federal Financial Institutions Examination Council. Fannie Mae and Freddie Mac are also members.

Before March 1997, the Task Force must complete five tasks: recommend standardized enforcement procedures to the head of each federal agency and Enterprise; conduct a study for Congress of the extent to which Federal agencies and the secondary mortgage market can provide assistance in ensuring compliance with the law; conduct a study for Congress of existing compliance programs to determine if there is a model program; develop and publish recommendations regarding enforcement and compliance procedures; and conduct a study of the reasonableness of fees charged by lenders in the process of determining whether a property is located in a Special Flood Hazard Area. OFHEO is contributing to the first four tasks.

Executive Compensation

Authority

OFHEO's statute gives the Director authority to prohibit Fannie Mae and Freddie Mac "from providing compensation to any executive officer of the enterprise that is not reasonable and comparable with compensation for employment in other similar businesses (including other publicly held financial institutions or major financial services companies) involving similar duties and responsibilities" (Sec. 1318(a)). The Act defines "executive officer" as "the chairman of the board of directors, chief executive officer, chief financial officer, president, vice chairman, any executive vice president, and any senior vice president in charge of a principal business unit, division, or function" (Sec. 1303(7)).

The Act also prohibits the Enterprises from entering into any severance agreement or contract with an executive officer, unless the Director of OFHEO approves the agreement or contract in advance. Approval of such agreements or contracts and their associated benefits hinges on demonstrated comparability to agreements with executives in similar businesses.

Activities

On April 1, 1996, OFHEO issued a Request for Proposals (RFP) in the area of executive compensation. OFHEO is seeking assistance in several areas: developing expertise in the field of executive compensation; evaluating the current compensation of executive officers at Fannie Mae and Freddie Mac to determine whether such compensation is reasonable and comparable to compensation for employment involving similar duties and responsibilities at similar businesses; and developing and implementing the process by which OFHEO would regularly review executive compensation at each Enterprise. OFHEO is currently reviewing proposals received in response to the RFP.

The Director has approved one severance package submitted by an Enterprise since the publication of OFHEO's 1995 annual report to Congress. Until OFHEO completes its review of executive compensation issues, approval of individual severance packages does not set precedent on particular issues.

OFHEO Finance and Administration

OFHEO operations are funded by assessments on Fannie Mae and Freddie Mac. Operating expenses are appropriated by Congress; however, the Office represents no direct cost to the taxpayer. The practice of regulated financial institutions underwriting their regulator's budget is an established one, but OFHEO is one of only a few such agencies whose budget is determined through the congressional appropriations process. Funds to support OFHEO's budget are assessed annually from the Enterprises and collected semi-annually. Assessments are prorated in proportion to the total of each Enterprise's combined assets and mortgage-backed securities. In FY 1996, Congress made a permanent change in the timing of the assessment collection to better coordinate with the appropriations process.

OFHEO's FY 1996 budget is $14.9 million. This budget supports continued development of the risk-based capital stress test; an examinations program that includes a risk management examination; rulemaking activities; and strengthening of Office infrastructure. It also supports a staff increase to 72 full-time permanent employees by the end of the fiscal year. OFHEO's FY 1996 hiring plan increases the examination staff to carry out OFHEO's comprehensive safety and soundness examination program. OFHEO received an additional $159,000 under contract from the U.S. Agency for International Development. This amount supports OFHEO's work on behalf of the Mexico-U.S. Binational Commission in a project aimed at creation of a secondary mortgage market in Mexico.

OFHEO's recruiting and hiring policy continues to reflect a commitment to professional excellence, integrity, and diversity. At the start of FY 1996, 61% of OFHEO's permanent staff were women or minorities. Among senior management staff, 56% were women or minorities.

Historical Data Tables

Fannie Mae
Financial Data
Table 1

($ in millions)	Balance Sheet/ MBS				
	Total Assets	Retained Mortgage Portfolio Outstanding 1/	Debt Outstanding	Total MBS Outstanding 2/	Multiclass MBS Outstanding 3/
1Q96	325,139	261,492	306,815	521,063	344,725
4Q95	316,550	252,868	299,174	513,230	353,528
3Q95	294,230	240,505	277,193	500,436	360,555
2Q95	287,274	231,629	270,937	489,597	369,701
1Q95	274,714	222,768	258,653	486,921	373,705
Annual Data					
1995	316,550	252,868	299,174	513,230	353,031
1994	272,508	220,815	257,230	486,345	378,733
1993	216,979	190,169	201,112	471,306	381,865
1992	180,978	156,260	166,300	424,444	312,369
1991	147,072	126,679	133,937	355,284	224,806
1990	133,113	114,066	123,403	288,075	127,278
1989	124,315	107,981	116,064	216,512	64,826
1988	112,258	100,099	105,459	170,097	26,660
1987	103,459	93,665	97,057	135,734	11,359
1986	99,621	94,123	93,563	95,568	0
1985	99,076	94,609	93,985	54,582	0
1984	87,798	84,135	83,719	35,738	0
1983	78,383	75,247	74,594	25,121	0
1982	72,981	69,356	69,614	14,450	0
1981	61,578	59,629	58,551	717	0
1980	57,879	55,589	54,880	0	0
1979*	51,300	49,777	48,424	0	0
1978*	43,506	42,103	40,985	0	0
1977*	33,980	33,252	31,890	0	0
1976*	32,393	31,775	30,565	0	0
1975*	31,596	30,820	29,963	0	0
1974*	29,671	28,666	28,168	0	0
1973*	24,318	23,589	23,003	0	0
1972*	20,346	19,652	19,239	0	0
1971*	18,591	17,886	17,672	0	0

Source: Fannie Mae

*Note: Figures are not restated for 12/87 FAS 91 change.

1/ Gross Retained Portfolio net of unamortized purchase premiums, discounts, and fees.

2/ Excludes MBS held in portfolio.

3/ Includes Multiclass MBS held in portfolio.

Fannie Mae
Financial Data
Table 2

($ in millions)	Capital			Earnings			
	Stockholders' Equity	Equity / (Assets + MBS) (%)	(Equity + Loss Reserves) / (Assets + MBS) (%) 1/	Net Income	Net Interest Margin (%) 2/	Average Guarantee Fee Rate (%)	Return on Average Common Equity (%)
1Q96	11,379	1.34	1.43	654	1.20	0.222	23.8
4Q95	10,959	1.32	1.41	408	1.19	0.220	15.1
3Q95	10,723	1.35	1.45	597	1.17	0.220	22.8
2Q95	10,323	1.33	1.43	573	1.13	0.219	22.7
1Q95	9,918	1.30	1.41	567	1.15	0.220	23.4
Annual Data							
1995	10,959	1.32	1.41	2,144	1.16	0.222	20.9
1994	9,541	1.26	1.37	2,132	1.24	0.225	24.3
1993	8,052	1.17	1.29	1,873	1.38	0.213	25.3
1992	6,774	1.12	1.25	1,623	1.37	0.212	26.5
1991	5,547	1.10	1.24	1,363	1.42	0.210	27.7
1990	3,941	0.94	1.06	1,173	1.39	0.211	33.7
1989	2,991	0.88	1.01	807	1.16	0.213	31.1
1988	2,260	0.80	0.94	507	0.89	0.216	25.2
1987	1,811	0.76	0.90	376	1.00	0.224	23.5
1986	1,182	0.61	0.74	105	0.40	0.238	9.5
1985	1,009	0.66	0.76	(7)	0.15	0.256	(0.7)
1984	918	0.74	0.85	(71)	(0.11)	0.262	(7.4)
1983	1,000	0.97	1.10	49	(0.01)	0.263	5.1
1982	953	1.09	1.25	(192)	(0.72)	0.272	(18.9)
1981	1,080	1.73	1.90	(206)	(0.74)	0.250	(17.2)
1980*	1,457	2.49	2.73	14	0.04	Not Applicable Before 1981	0.9
1979*	1,501	2.93	3.17	162	0.70		11.3
1978*	1,362	3.13	3.36	209	0.98		16.5
1977*	1,173	3.45	3.66	165	0.95		15.3
1976*	983	3.03	3.19	127	0.82		13.8
1975*	861	2.73	2.84	115	0.73		14.1
1974*	772	2.60	2.69	107	0.70		14.7
1973*	680	2.80	2.87	126	0.98		20.3
1972*	559	2.75	2.78	96	0.84		18.8
1971*	460	2.47	2.49	61	0.40		14.4

*Note: Figures are not restated for 12/87 FAS 91 change.

1/ Effective 1/1/95 reserves exclude valuation allowance related to impaired loans pursuant to SFAS 114.

2/ Taxable equivalent net interest income divided by average earning assets.

Fannie Mae
Financial Data
Table 3

($ in millions)	Mortgage Asset Quality				Business Activity: Purchases 2/		
	Single-Family Delinquency Rate (%) 1/	Multifamily Delinquency Rate (%)	Charge-Offs / (Portfolio + MBS) (%)	REO / (Portfolio + MBS) (%)	Single-Family Purchases	Multifamily Purchases	Total Purchases
1996	0.58	0.95	0.06	0.10	54,753	1,479	56,232
4Q95	0.56	0.81	0.05	0.08	58,804	2,665	61,469
3Q95	0.52	1.04	0.05	0.09	49,431	1,337	50,768
2Q95	0.48	1.02	0.05	0.09	34,478	923	35,401
1Q95	0.48	1.20	0.05	0.09	19,147	269	19,416
Annual Data							
1995	0.56	0.81	0.05	0.08	161,860	5,194	167,054
1994	0.47	1.21	0.06	0.10	189,171	3,840	193,011
1993	0.56	2.34	0.04	0.10	309,346	4,135	313,481
1992	0.63	2.65	0.04	0.09	266,986	2,956	269,942
1991	0.64	3.62	0.04	0.07	146,901	3,204	150,105
1990	0.58	1.70	0.06	0.09	117,473	3,181	120,654
1989	0.69	3.20	0.07	0.14	87,446	4,836	92,282
1988	0.88	6.60	0.11	0.15	73,808	4,180	77,988
1987	1.12	Not Available Before 1988	0.11	0.18	82,277	1,483	83,760
1986#	1.38		0.12	0.22	89,515	1,877	91,392
1985#	1.48		0.13	0.32	43,959	1,200	45,159
1984#	1.65		0.09	0.33	29,161	1,106	30,267
1983#	1.49		0.05	0.35	30,757	140	30,897
1982#	1.41		0.01	0.20	29,077	9	29,086
1981#	0.96		0.01	0.13	6,828	2	6,830
1980#	0.90		0.01	0.09	8,074	27	8,101
1979*	0.56		0.02	0.11	10,798	9	10,807
1978*	0.55		0.02	0.18	12,302	3	12,305
1977*	0.46		0.02	0.26	4,650	134	4,784
1976*	1.58		0.03	0.27	3,337	295	3,632
1975*	0.56		0.03	0.51	3,646	674	4,320
1974*	0.51		0.02	0.52	4,746	2,273	7,019
1973*	Not Available Before 1974		0.00	0.61	4,170	2,082	6,252
1972*			0.02	0.98	2,596	1,268	3,864
1971*			0.01	0.59	2,742	1,298	4,040

*Note: Asset Quality figures are not restated for 12/87 FAS 91 change.
#Note: Charge-off ratio has not been restated for change in loss accounting methodology.
1/ Single-family delinquency rate has been restated for periods prior to December 31, 1995, to include loans three or more months delinquent or in foreclosure.
2/ Purchases of whole loans and mortgage securities for the retained portfolio plus MBS Issued.

Fannie Mae
Financial Data
Table 4

($ in millions)	Business Activity: MBS			
	Single-Family MBS Issued	Multifamily MBS Issued	Total MBS Issued	Multiclass MBS Issued
1Q96	37,313	1,057	38,370	2,760
4Q95	39,291	2,344	41,635	3,139
3Q95	33,532	889	34,421	1,522
2Q95	20,561	769	21,330	3,767
1Q95	12,885	185	13,070	1,253
Annual Data				
1995	106,269	4,187	110,456	9,681
1994	128,385	2,237	130,622	73,365
1993	220,485	959	221,444	210,630
1992	193,187	850	194,037	170,205
1991	111,488	1,415	112,903	112,808
1990	96,006	689	96,695	68,291
1989	66,489	3,275	69,764	41,715
1988	51,120	3,758	54,878	16,755
1987	62,067	1,162	63,229	9,917
1986	60,017	549	60,566	2,400
1985	23,142	507	23,649	0
1984	13,087	459	13,546	0
1983	13,214	126	13,340	0
1982	13,970	0	13,970	0
1981	717	0	717	0
1980	0	0	0	0

Freddie Mac
Financial Data
Table 5

($ in millions)	Balance Sheet/ MBS				
	Total Assets	Retained Mortgage Portfolio Outstanding 1/	Debt Outstanding 2/	Total MBS Outstanding 3/	Multiclass MBS Outstanding
1Q96	143,792	117,644	123,637	461,189	247,013
4Q95	137,181	107,706	119,328	459,045	246,969
3Q95	128,653	95,169	110,986	457,046	253,955
2Q95	123,274	85,745	107,467	458,525	261,161
1Q95	113,625	77,615	100,439	458,753	260,461
Annual Data					
1995	137,181	107,706	119,328	459,045	246,969
1994	106,199	73,171	92,053	460,656	263,662
1993	83,880	55,938	48,510	439,029	264,122
1992	59,502	33,629	28,173	407,514	217,030
1991	46,860	26,667	28,300	359,163	142,960
1990	40,579	21,520	28,375	316,359	83,437
1989	35,462	21,448	24,102	272,870	47,573
1988	34,352	16,918	24,846	226,406	10,877
1987	25,674	12,354	17,461	212,635	0
1986	23,229	13,093	13,378	169,186	0
1985	16,299	13,547	11,754	99,908	0
1984	13,175	10,018	10,186	70,025	0
1983	8,954	7,485	6,782	57,720	0
1982	6,029	4,679	4,521	42,952	0
1981	6,326	5,178	5,480	19,897	0
1980	5,478	5,006	4,686	16,962	0
1979	4,648	4,003	3,981	15,316	0
1978	3,697	3,038	3,066	12,017	0
1977	3,501	3,204	3,110	6,765	0
1976	4,832	4,175	3,351	2,765	0
1975	5,899	4,878	4,050	1,643	0
1974	4,901	4,469	3,989	780	0
1973	2,873	2,521	2,696	791	0
1972	1,778	1,726	1,639	444	0
1971	1,038	935	915	64	0

Source: Freddie Mac

1/ Gross Retained Portfolio net of unamortized purchase premiums, discounts, and fees. Beginning 1/1/95, the data reflect adoption of SFAS 114. Data for prior periods have not been restated.

2/ Does not include subordinated borrowings.

3/ Excludes MBS held in portfolio.

Freddie Mac
Financial Data
Table 6

($ in millions)	Capital			Earnings			
	Stockholders' Equity	Equity / (Assets + MBS) (%)	(Equity + Loss Reserves) / (Assets + MBS) (%) 1/	Net Income 2/	Net Interest Margin (%) 2/ 3/ 4/ 5/	Average Guarantee Fee Rate (%) 3/	Return on Average Common Equity (%)
1Q96	6,012	0.99	1.10	301	1.25	0.235	22.3
4Q95	5,863	0.98	1.09	291	1.27	0.236	22.0
3Q95	5,703	0.97	1.09	278	1.22	0.237	22.0
2Q95	5,543	0.95	1.07	264	1.19	0.238	22.0
1Q95	5,351	0.93	1.06	258	1.23	0.241	22.0
Annual Data							
1995	5,863	0.98	1.09	1,091	1.23	0.238	21.9
1994	5,162	0.91	1.04	983	1.25	0.241	23.2
1993	4,437	0.85	0.99	786	1.02	0.238	22.2
1992	3,570	0.76	0.93	622	1.17	0.241	21.2
1991	2,566	0.63	0.81	555	1.66	0.237	23.6
1990	2,136	0.60	0.77	414	1.76	0.224	20.5
1989	1,916	0.62	0.77	437	1.62	0.234	25.0
1988	1,584	0.61	0.76	381	1.95	0.215	27.6
1987	1,182	0.50	0.64	301	1.50	0.242	28.2
1986	953	0.50	0.64	247	1.66	0.224	28.5
1985	779	0.67	0.86	208	2.31	0.221	30.0
1984	606	0.73	0.95	144	2.08	0.247	52.0
1983	421	0.63	0.85	160	1.83	0.262	44.5
1982	296	0.60	0.84	60	0.53	0.245	21.9
1981	250	0.95	1.30	31	0.63	0.195	13.1
1980	221	0.98	1.31	34	1.17	0.143	14.7
1979	238	1.19	1.49	36	1.45	0.132	16.2
1978	202	1.29	1.56	25	1.11	0.149	13.4
1977	177	1.72	2.02	21	0.77	0.189	12.4
1976	156	2.05	2.34	14	0.34	0.136	9.5
1975	142	1.88	2.24	16	0.58	0.248	11.6
1974	126	2.22	2.52	5	1.09	0.255	4.0
1973	121	3.30	3.71	12	1.35	0.324	9.9
1972	110	4.95	5.18	4	Not Available Before1973	0.394	3.5
1971	107	9.71	Not Available	6		Not Available	5.5

1/ Effective 1/1/95 reserves exclude valuation allowance related to impaired loans pursuant to SFAS 114. Valuation allowance estimated for 1Q96.

2/ Effective January 1, 1996, Freddie Mac reports guarantee fees on retained MBS as guarantee fee income. Previously these fees were included in net interest income. However, for comparability with Fannie Mae, guarantee fee income on retained MBS for the first quarter have been estimated and included in the net interest income.

3/ 1993 and 1992 are pro forma, to reflect the change in the reporting of uncollectible interest on single-family mortgages implemented in 1994.

4/ Average balances used in pre-1987 calculations are based on the simple average of the year-end balance of the reported period and the prior year-end balance. Subsequent calculations use daily average balances.

5/ Beginning with 1993 data, net interest margin is calculated on a taxable equivalent basis.

Freddie Mac
Financial Data
Table 7

($ in millions)	Mortgage Asset Quality				Business Activity: Purchases 4/		
	Single-Family Delinquency Rate (%) 1/	Multifamily Delinquency Rate (%) 2/	Charge-Offs / (Portfolio + MBS) (%)	REO / (Portfolio + MBS) (%) 3/	Single-Family Purchases	Multifamily Purchases	Total Purchases
1Q96	0.60	2.75	0.10	0.14	45,727	346	46,073
4Q95	0.60	2.88	0.11	0.14	45,697	645	46,342
3Q95	0.56	3.25	0.11	0.15	36,714	451	37,165
2Q95	0.54	3.63	0.11	0.16	29,805	268	30,073
1Q95	0.55	3.99	0.10	0.18	17,139	201	17,340
Annual Data							
1995	0.60	2.88	0.10	0.14	129,355	1,565	130,920
1994	0.55	3.79	0.08	0.18	142,429	847	143,276
1993	0.61	3.45	0.05	0.20	241,407	191	241,598
1992	0.64	4.45	0.06	0.17	193,977	27	194,004
1991	0.61	3.40	0.08	0.14	101,463	236	101,699
1990	0.45	2.63	0.08	0.12	74,180	1,338	75,518
1989	0.38	2.53	0.06	0.09	76,765	1,824	78,589
1988	0.36	2.24	0.06	0.09	42,884	1,191	44,075
1987	0.36	1.49	0.06	0.08	74,824	2,016	76,840
1986	0.42	1.07	0.04	0.07	99,936	3,538	103,474
1985	0.42	0.63	0.04	0.10	42,110	1,902	44,012
1984	0.46	0.42	0.02	0.15	Not Available Before 1985	Not Available Before 1985	21,885
1983	0.47	0.58	0.02	0.13			22,952
1982	0.54	1.04	0.01	0.12			23,671
1981	0.61	Not Available Before 1982	0.00	0.07			3,744
1980	0.44		0.04	0.04			3,690
1979	0.31		0.02	0.02			5,716
1978	0.21		0.00	0.02			6,524
1977	Not Available Before 1978		0.00	0.03			4,124
1976			0.03	0.04			1,129
1975			0.05	0.03			1,716
1974			0.70	0.02			2,185
1973			0.36	0.00			1,334
1972			Not Available Before 1973	Not Available Before 1973			1,265
1971							778

1/ Pre-1982 delinquencies apply to the retained and sold mortgage portfolios.
2/ 1988-1994 MF delinquencies based on unpaid principal balance. 1982-1987 MF delinquencies based on the number of loans delinquent 60 days or more.
3/ Beginning with 1Q95, data includes adoption of SFAS 114. Prior periods not restated.
4/ Purchases of whole loans and mortgage securities for the retained portfolio plus MBS issued.

Freddie Mac
Financial Data
Table 8

($ in millions)	Business Activity: MBS			
	Single-Family MBS Issued	Multifamily MBS Issued	Total MBS Issued	Multiclass MBS Issued
1Q96	32,741	0	32,741	5,153
4Q95	30,479	100	30,579	1,727
3Q95	24,310	164	24,474	2,562
2Q95	19,548	62	19,610	8,127
1Q95	11,185	29	11,214	2,956
Annual Data				
1995	85,522	355	85,877	15,372
1994	116,901	209	117,110	73,131
1993	208,724	0	208,724	143,336
1992	179,202	5	179,207	131,284
1991	92,479	0	92,479	72,032
1990	71,998	1,817	73,815	40,479
1989	72,931	587	73,518	39,754
1988	39,490	287	39,777	12,985
1987	72,866	2,152	75,018	0
1986	96,798	3,400	100,198	0
1985	37,583	1,245	38,828	0
1984	Not Available Before 1985	Not Available Before 1985	18,684	0
1983			19,691	0
1982			24,169	0
1981			3,529	0
1980			2,526	0
1979			4,546	0
1978			6,412	0
1977			4,657	0
1976			1,360	0
1975			950	0
1974			46	0
1973			323	0
1972			494	0
1971			65	0

Aggregate Enterprise
Financial Data
Table 9

($ in millions)	Balance Sheet/ MBS				
	Total Assets	Retained Mortgage Portfolio Outstanding	Debt Outstanding	Total MBS Outstanding	Multiclass MBS Outstanding
1Q96	468,931	379,136	430,452	982,252	591,738
4Q95	453,731	360,574	418,502	972,275	600,497
3Q95	422,883	335,674	388,179	957,482	614,510
2Q95	410,548	317,374	378,404	948,122	630,862
1Q95	388,339	300,383	359,092	945,674	634,166
	Annual Data				
1995	453,731	360,574	418,502	972,275	600,000
1994	378,707	293,986	349,283	947,001	642,395
1993	300,859	246,107	249,622	910,335	645,987
1992	240,480	189,889	194,473	831,958	529,399
1991	193,932	153,346	162,237	714,447	367,766
1990	173,692	135,586	151,778	604,434	210,715
1989	159,777	129,429	140,166	489,382	112,399
1988	146,610	117,017	130,305	396,503	37,537
1987	129,133	106,019	114,518	348,369	11,359
1986	122,850	107,216	106,941	264,754	0
1985	115,375	108,156	105,739	154,490	0
1984	100,973	94,153	93,905	105,763	0
1983	87,337	82,732	81,376	82,841	0
1982	79,010	74,035	74,135	57,402	0
1981	67,904	64,807	64,031	20,614	0
1980	63,357	60,595	59,566	16,962	0
1979	55,948	53,780	52,405	15,316	0
1978	47,203	45,141	44,051	12,017	0
1977	37,481	36,456	35,000	6,765	0
1976	37,225	35,950	33,916	2,765	0
1975	37,495	35,698	34,013	1,643	0
1974	34,572	33,135	32,157	780	0
1973	27,191	26,110	25,699	791	0
1972	22,124	21,378	20,878	444	0
1971	19,629	18,821	18,587	64	0

Aggregate Enterprise
Financial Data
Table 10

($ in millions)	Capital			Earnings
	Stockholders' Equity	Equity / (Assets + MBS) (%)	(Equity + Loss Reserves) / (Assets + MBS) (%)	Net Income
1Q96	17,391	1.20	1.30	953
4Q95	16,822	1.18	1.28	699
3Q95	16,426	1.19	1.30	875
2Q95	15,866	1.17	1.28	837
1Q95	15,269	1.14	1.26	825
Annual Data				
1995	16,822	1.18	1.28	3,235
1994	14,703	1.11	1.23	3,115
1993	12,489	1.03	1.16	2,659
1992	10,344	0.96	1.11	2,245
1991	8,113	0.89	1.05	1,918
1990	6,077	0.78	0.93	1,587
1989	4,907	0.76	0.90	1,244
1988	3,844	0.71	0.85	888
1987	2,993	0.63	0.77	677
1986	2,135	0.55	0.69	352
1985	1,788	0.66	0.80	201
1984	1,524	0.74	0.89	73
1983	1,421	0.84	1.00	209
1982	1,249	0.92	1.10	(132)
1981	1,330	1.50	1.72	(175)
1980	1,678	2.09	2.33	48
1979	1,739	2.44	2.70	198
1978	1,564	2.64	2.88	234
1977	1,350	3.05	3.28	186
1976	1,139	2.85	3.03	141
1975	1,003	2.56	2.72	131
1974	898	2.54	2.66	112
1973	801	2.86	2.98	138
1972	669	2.96	3.02	100
1971	567	2.88	Not Available	67

Aggregate Enterprise
Financial Data
Table 11

($ in millions)	Business Activity: Purchases			Business Activity: MBS			
	Single-Family Purchases	Multifamily Purchases	Total Purchases	Single-Family MBS Issued	Multifamily MBS Issued	Total MBS Issued	Multiclass MBS Issued
1Q96	100,480	1,825	102,305	70,054	1,057	71,111	7,913
4Q95	104,501	3,310	107,811	69,770	2,444	72,214	4,866
3Q95	86,145	1,788	87,933	57,842	1,053	58,895	4,084
2Q95	64,283	1,191	65,474	40,109	831	40,940	11,894
1Q95	36,286	470	36,756	24,070	214	24,284	4,209
Annual Data							
1995	291,215	6,759	297,974	191,791	4,542	196,333	25,053
1994	331,600	4,687	336,287	245,286	2,446	247,732	146,496
1993	550,753	4,326	555,079	429,209	959	430,168	353,966
1992	460,963	2,983	463,946	372,389	855	373,244	301,489
1991	248,364	3,440	251,804	203,967	1,415	205,382	184,840
1990	191,653	4,519	196,172	168,004	2,506	170,510	108,770
1989	164,211	6,660	170,871	139,420	3,862	143,282	81,469
1988	116,692	5,371	122,063	90,610	4,045	94,655	29,740
1987	157,101	3,499	160,600	134,933	3,314	138,247	9,917
1986	189,451	5,415	194,866	156,815	3,949	160,764	2,400
1985	86,069	3,102	89,171	60,725	1,752	62,477	0
1984	Freddie Mac Not Available Before 1985	Freddie Mac Not Available Before 1985	52,152	Freddie Mac Not Available Before 1985	Freddie Mac Not Available Before 1985	32,230	0
1983			53,849			33,031	0
1982			52,757			38,139	0
1981			10,574			4,246	0
1980			11,791			2,526	0
1979			16,523			4,546	0
1978			18,829			6,412	0
1977			8,908			4,657	0
1976			4,761			1,360	0
1975			6,036			950	0
1974			9,204			46	0
1973			7,586			323	0
1972			5,129			494	0
1971						65	0

Mortgage Interest Rates
Table 12

	Average Commitment Rates on Loans		Effective Rates on Closed Loans	
	Conventional		*Conventional*	
	30 Yr.Fixed Rate (%)	One-Year. ARMS(%)	Fixed Rate (%)	Adjustable Rate (%)
1Q96	7.2	5.4	7.4	6.9
4Q95	7.3	5.6	7.7	6.8
3Q95	7.7	5.8	7.9	7.1
2Q95	7.9	6.1	8.4	7.2
1Q95	8.8	6.6	9.1	7.2
Annual Data				
1995	7.9	6.1	8.3	7.1
1994	8.4	5.4	8.2	6.4
1993	7.3	4.6	7.5	5.7
1992	8.4	5.6	8.5	6.6
1991	9.2	7.1	9.7	8.3
1990	10.1	8.4	10.4	9.2
1989	10.3	8.8	10.5	9.4
1988	10.3	7.9	10.4	8.5
1987	10.2	7.8	9.9	8.5
1986	10.2	8.4	10.5	9.4
1985	12.4	10.0	12.4	10.9
1984	13.9	11.5	13.2	12.1
1983	13.2	Not Applicable Before1984	13.0	12.3
1982	16.0		15.2	15.4
1981	16.6		Not Available Before1982	Not Applicable Before1982
1980	13.7			
1979	11.2			
1978	9.6			
1977	8.8			
1976	8.9			
1975	9.0			
1974	9.2			
1973	8.0			
1972	7.4			

Average Commitment Rate Source: Freddie Mac
Effective Rates Source: Federal Housing Finance Board

Housing Market Activity
Table 13

	Housing Starts (Units in Thousands)			Home Sales (Units in Thousands)	
	Single-Family Housing Starts	Multifamily Housing Starts	Total Housing Starts	New SF Home Sales	Existing SF Home Sales
1Q96	1,164	277	1,467	709	3,957
4Q95	1,129	251	1,411	678	3,980
3Q95	1,130	252	1,417	724	4,037
2Q95	1,019	242	1,293	666	3,630
1Q95	1,035	237	1,311	606	3,570
Annual Data					
1995	1,078	246	1,358	669	3,944
1994	1,192	220	1,446	668	3,804
1993	1,155	133	1,288	666	3,802
1992	1,061	139	1,200	610	3,520
1991	876	138	1,014	509	3,220
1990	932	260	1,193	534	3,211
1989	1,059	318	1,376	650	3,346
1988	1,140	348	1,488	676	3,594
1987	1,212	409	1,621	671	3,526
1986	1,263	542	1,805	750	3,565
1985	1,166	576	1,742	688	3,214
1984	1,206	544	1,750	639	2,868
1983	1,181	522	1,703	623	2,719
1982	743	320	1,062	412	1,990
1981	796	288	1,084	436	2,419
1980	962	331	1,292	545	2,973
1979	1,316	429	1,745	709	3,827
1978	1,558	462	2,020	817	3,986
1977	1,573	414	1,987	819	3,650
1976	1,248	289	1,538	646	3,064
1975	956	204	1,160	549	2,476
1974	956	382	1,338	519	2,272
1973	1,250	795	2,045	634	2,334
1972	1,451	906	2,357	718	2,252
1971	1,271	781	2,052	656	2,018

Components may not add to totals due to rounding.
Housing Starts Source: Bureau of the Census.
New SF Home Sales Source: Bureau of the Census.
Existing SF Home Sales Source: National Association of Realtors

Weighted Repeat Sales House Price Index
Table 14

1987=100 Yearly Index	USA	New England	Mid Atlantic	South Atlantic	East North Central	West North Central	East South Central	West South Central	Mountain	Pacific
1Q96	5.4	5.4	4.8	5.6	5.6	5.2	6.5	5.7	8.0	4.2
4Q95	5.2	5.3	3.7	5.4	6.1	5.4	6.4	4.9	8.4	3.6
3Q95	4.1	3.9	2.1	4.1	5.7	4.7	5.9	3.3	8.2	2.5
2Q95	2.9	1.1	(0.0)	2.7	5.7	4.8	5.5	2.7	8.5	0.3
1Q95	1.9	(1.6)	(2.0)	1.3	6.4	6.2	5.2	1.5	10.2	(2.3)
1995	5.2	5.3	3.7	5.4	6.1	5.4	6.4	4.9	8.4	3.6
1994	1.8	(2.4)	(2.2)	1.1	6.7	6.7	5.4	2.1	10.8	(2.8)
1993	2.3	0.8	1.6	2.3	3.7	3.9	4.3	4.3	8.6	(1.6)
1992	2.0	(0.9)	1.7	2.2	3.9	3.0	3.4	3.5	5.6	(1.0)
1991	2.7	(1.9)	1.6	3.2	4.5	3.8	4.2	3.8	5.0	1.7
1990	0.4	(7.4)	(2.2)	0.4	3.9	0.7	0.7	0.8	1.8	2.9
1989	6.2	0.9	2.6	5.2	6.1	3.2	3.3	3.0	2.7	19.6
1988	6.4	4.2	6.4	7.2	6.7	2.8	2.8	(1.9)	0.6	17.2
1987	7.7	13.1	17.3	7.8	8.7	3.7	5.3	(8.3)	(1.2)	10.0
1986	9.8	21.1	19.6	8.7	8.3	6.0	8.7	1.0	4.6	7.5
1985	6.6	24.7	12.7	6.0	4.5	3.3	11.5	(2.8)	1.0	4.7
1984	4.1	18.1	12.8	1.0	2.8	4.5	(3.3)	(1.1)	0.6	4.6
1983	3.2	15.3	10.1	3.5	0.2	3.7	5.0	(0.5)	(2.6)	0.9
1982	3.0	5.1	4.0	5.2	(1.0)	0.7	4.1	5.6	6.6	0.5
1981	4.1	6.3	(0.0)	4.5	1.2	(0.4)	(1.1)	12.5	6.6	7.0
1980	5.7	5.2	7.5	7.2	1.1	3.1	2.4	6.1	6.2	11.7
1979	12.5	12.9	15.2	12.8	9.3	9.1	7.1	13.9	15.9	16.8
1978	13.1	15.4	8.1	10.4	14.4	12.7	8.9	18.0	15.5	16.5
1977	13.4	11.0	8.8	8.6	13.8	13.5	10.9	12.7	19.9	25.8
1976	8.9	1.7	8.9	5.4	8.5	7.4	9.8	8.0	10.9	20.7

Source: OFHEO

Regional Divisions

New England: CT, MA, ME, NH, RI, VT
Mid-Atlantic: NJ, NY, PA
So. Atlantic: DC, DE, FL, GA, MD, NC, SC, VA, WV
E.S. Central: AL, KY, MS, TN
W.S. Central: AR, LA, OK, TX

W.N. Central: IA, KS, MN, MO, ND, NE, SD
E.N. Central: IL, IN, MI, OH, WI
Mountain: AZ, CO, ID, MT, NH, NV, UT, WY
Pacific: AK, CA, HI, OR, WA

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APPENDIX

Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (Title XIII of Public Law 102-550)

Section 1313. DUTY AND AUTHORITY OF DIRECTOR.

(A) DUTY. - The duty of the Director shall be to ensure that the enterprises are adequately capitalized and operating safely, in accordance with this title.

(b) AUTHORITY EXCLUSIVE OF SECRETARY.- The Director is authorized, without the review or approval of the Secretary, to make such determinations, take such actions, and perform such functions as the Director determines necessary regarding -

(1) the issuance of regulations to carry out this part, subtitle B, and subtitle C (including the establishment of capital standards pursuant to subtitle B);
(2) examinations of the enterprises under section 1317;
(3) determining the capital levels of the enterprises and classification of the enterprises within capital classifications established under subtitle B;
(4) decisions to appoint conservators for the enterprises;
(5) administrative and enforcement actions under subtitle B, actions taken under subtitle C with respect to enforcement of subtitle B, and other matters relating to safety and soundness;
(6) approval of payments of capital distributions by the enterprises under section 303(c)(2) of the Federal National Mortgage Association Charter Act and section 303(b)(2) of the Federal Home Loan Mortgage Corporation Act;
(7) requiring the enterprises to submit reports under section 1314 of this title, section 309(k) of the Federal National Mortgage Association Charter Act, and section 307(c) of the Federal Home Loan Mortgage Corporation Act;
(8) prohibiting the payment of excessive compensation by the enterprises to any executive officer of the enterprises under section 1318;
(9) the management of the Office, including the establishment and implementation of annual budgets, the hiring of, and compensation levels for, personnel of the Office, and annual assessments for the costs of the Office;
(10) conducting research and financial analysis;
(11) the submission of reports required by the Director under this title.

(c) AUTHORITY SUBJECT TO APPROVAL OF SECRETARY.- Any determinations, actions, and functions of the Director not referred to in subsection (b) shall be subject to the review and approval of the Secretary.

(d) DELEGATION OF AUTHORITY.- The Director may delegate to officers and employees of the Office any of the functions, powers, and duties of the Director, as the Director considers appropriate.

(e) INDEPENDENCE IN PROVIDING INFORMATION TO CONGRESS.- The Director shall not be required to obtain the prior approval, comment, or review of any officer or agency of the United States before submitting to the Congress, or any committee or subcommittee thereof, any reports, recommendations, testimony, or comments if such submissions include a statement indicating that the views expressed therein are those of the Director and do not necessarily represent the views of the Secretary or the President.

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