Working Paper No. HF-005

THE GSEs' FUNDING OF AFFORDABLE LOANS: A 1996 UPDATE

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July 1998

Housing Finance
W O R K I N G   P A P E R   S E R I E S

Office of Policy Development and Research

U.S. Department of Housing and Urban Development

The GSEs' Funding of Affordable Loans: A 1996 Update[1]

A. Introduction

In December 1996, the authors published a paper, "The GSEs' Funding of Affordable Loans", that examined the role of Fannie Mae and Freddie Mac in financing affordable housing for disadvantaged borrowers. The characteristics (e.g., borrower income and race, location in low-income census tracts) of mortgages purchased by these two government-sponsored enterprises (GSEs) were compared with those of all mortgages originated in the conventional conforming market and mortgages originated and retained by banks and thrift institutions. That paper, which was based mainly on Home Mortgage Disclosure Act (HMDA) data for the year 1995, will be referred to as the "1995 Study".

The 1995 HMDA data showed clearly that the GSEs were lagging other market sectors in funding affordable loans for lower-income and minority borrowers that historically have not been well served by the conventional mortgage market.[2] While the GSEs significantly improved their performance between 1992 and 1995, there was room for further improvement, particularly for Freddie Mac. Freddie Mac lagged both Fannie Mae and the depositories in funding loans for

[1] The authors gratefully acknowledge Paul Manchester of the Department of Housing and Urban Development and Ian Keith of Computer Based Systems Inc. for their comments and suggestions in revising this paper. Nana Farshad and Ming Chow of Computer Based Systems Inc. provided invaluable research assistance. The authors assume responsibility for any errors.

[2] The term "affordable lending" will be used throughout this paper as a shorthand for loans to lower-income and minority borrowers and their neighborhoods. These are the groups that find it difficult to pass conventional underwriting standards; for a discussion of the financing problems faced by these underserved borrowers and their neighborhoods, see Chapter 4 of HUD (1996).

underserved borrowers and had only slightly improved its relative position in the affordable lending market between 1992 and 1995. Fannie Mae, on the other hand, had significantly improved its performance during this period but it also continued to lag the market in most categories of affordable lending.

The purpose of this current paper is to update the 1995 Study to include 1996 HMDA data. The GSEs' affordable lending performance is examined using HMDA data on home purchase loans originated in metropolitan areas between 1992 and 1996. This update to the 1995 Study is important for two reasons. First, while the absolute level of affordable loans continued at peak or near-peak levels during 1996, there was a slight decline in the share of conventional loans originated for several categories of disadvantaged borrowers. This decline in the affordable lending share of the market followed four years of growing market share between 1992 and 1995. It is important to see how the GSEs' purchases changed in light of these new market trends. Second, there was some convergence between the relative performances of Fannie Mae and Freddie Mac during 1996; Freddie Mac's performance improved relative to both Fannie Mae's and the overall market.

To maintain consistency with the previous work, the textual format and tables are similar to those in the 1995 Study. The text focuses on the "FHA-eligible" portion of the conventional conforming market.[3] Appendix B replicates the analytical tables for the entire conforming conventional market -- that is, it incorporates "non-FHA eligible" loans into the analysis, thus providing a complete picture of the conforming market in which the GSEs purchase their loans.

B. Background and Main Findings

The focus of this study is the question of whether the GSEs' loan purchases reflect the primary mortgage market's distributions across different income and racial categories of borrowers and neighborhoods. This issue was highlighted by HUD's GSE regulation, which established specific affordable housing goals for Fannie Mae and Freddie Mac, and by studies on the desirability of privatizing the GSEs. The GSEs receive substantial benefits from their Federal charters, mainly in the form of lower funding costs due to their "agency status". In exchange for these Federal benefits, one factor in setting the housing goals is the GSEs' ability to lead the industry in the provision of credit to families and communities currently not being well served by the mortgage market. The HMDA data, which provides information on both mortgage originations and mortgages purchased by the GSEs, can be used to test the GSEs' performance relative to the overall market.

Conclusions. The 1996 HMDA data show that both GSEs -- but particularly Freddie Mac -- continue to lag other market participants in funding affordable loans. While Freddie Mac improved its performance relative to both Fannie Mae and the overall market during 1996, Freddie Mac

[3] FHA-eligible loans are conventional loans that fall within the FHA maximum loan limit for each metropolitan area, which is typically equal to 95 percent of each area's median house price.

continues to lag the market by a rather significant amount. The GSE affordable housing goals implemented by HUD are designed to encourage Freddie Mac and Fannie Mae to narrow the gap between their performance and that of the overall market.

The paper's main findings, which are summarized in the data presented in Table A, can be grouped around four topics:

(1) Main Findings -- 1996 Mortgage Market

(a) In 1996, the shares of the GSEs' business going to lower-income borrowers and underserved neighborhoods continued to fall short of the corresponding shares of other market participants.

> In 1996, very-low-income borrowers accounted for 17.9 percent of FHA-eligible loans retained in portfolio by depositories, compared with 13.5 percent of loans purchased by the GSEs, a 25 percent shortfall in performance. Census tracts where African Americans are more than 30 percent of the population accounted for 5.4 percent of new mortgages retained by the depositories, compared with 4.2 percent of the GSEs' purchases, a 22 percent shortfall in performance.[4]

(b) The two GSEs show different patterns of affordable lending -- Fannie Mae is more likely than Freddie Mac to purchase loans for underserved borrowers and neighborhoods.

> In 1996, African-American and Hispanic borrowers accounted for 12.7 percent of FHA-eligible home loans purchased by Fannie Mae, compared with 9.3 percent of such loans purchased by Freddie Mac, for a "Fannie-to-Freddie" performance ratio of 1.37. In the same year, 27.5 percent of Fannie Mae's loans funded properties in underserved neighborhoods (as defined by HUD) compared with 24.4 percent of Freddie Mac's loans, for a "Fannie-to-Freddie" ratio of 1.13.

(c) The GSEs account for a significant share of the total FHA-eligible market. However, their market share for each of the affordable lending categories is substantially less than their share of the overall market.

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[4] Others have reached similar conclusions. Canner and Passmore (1995), Canner et al. (1996), and Lind (1996a,b) report that the GSEs do not do as good a job as portfolio lenders in funding lower-income borrowers and their neighborhoods. The GSEs, on the other hand, have reached opposite conclusions to those reported in this paper. For instance, in its 1995 report, "Financing Homes for a Diverse America", Freddie Mac concludes that the income and racial characteristics of borrowers whose loans it purchases are very similar to those of the overall conventional conforming market.

It is estimated that in 1996 the GSEs purchased 27 percent of all newly-originated FHA-eligible home loans in metropolitan areas, but only 16 percent of all loans to African-American and Hispanic and 21 percent of all loans financing properties in underserved areas. In contrast, FHA, which focuses mainly on credit-constrained borrowers, insured a similar share of all FHA-eligible loans (27 percent) but much larger shares of all loans to African-Americans and Hispanics (44 percent) and in underserved areas (34 percent).

(2) Main Findings -- 1995-96 Changes

(d) With a few exceptions, the percentage shares of mortgages going to disadvantaged borrowers and neighborhoods declined between 1995 and 1996, after increasing between 1992 and 1995.

After increasing from 3.5 percent in 1992 to 6.1 percent in 1995, the share of FHA-eligible conventional home loans going to African-Americans declined to 5.4 percent in 1996. The share of home loans going to low-income neighborhoods declined to 13.3 percent in 1996, after increasing from 11.5 percent to 13.8 percent between 1992 and 1995. The one important exception to these trends was that the share of home loans going to very-low-income borrowers increased between 1995 and 1996.

(e) A decline in the affordable lending share was more evident at Fannie Mae than at Freddie Mac -- in general, Fannie Mae's affordable share declined with the overall market while Freddie Mac's affordable share rose or declined less than the market.

The share of market originations in high-African-American census tracts declined by 0.5 percentage points between 1995 and 1996. The share of Fannie Mae's purchases in these same areas declined by 0.7 percentage points (from 5.3 percent in 1995 to 4.6 percent in 1996). On the other hand, the share of Freddie Mac's purchases in high-African-American tracts remained about the same (declining from 3.8 percent in 1995 to 3.7 percent in 1996).

(f) Thus, there was some convergence in Freddie Mac's performance relative to Fannie Mae's performance between 1995 and 1996. This represents the first time that Freddie Mac's affordable lending performance has improved relative to Fannie Mae's.

In 1995, very-low-income borrowers accounted for 13.0 percent of Fannie Mae's FHA-eligible purchases and 11.5 percent of Freddie Mac's purchases, for ratio of 1.13. In 1996, Fannie Mae's very-low-income percentage rose to 13.8 percent and Freddie Mac's rose to 13.1 percent, yielding a lower "Fannie-to-Freddie" ratio of 1.05 (which means relative improvement for Freddie Mac). Similarly, for underserved areas, the "Fannie-to-Freddie" performance ratio fell from 1.18 in 1995 to 1.13 in

1996.[5]

(3) Main Findings -- 1992-96 Period

(g) Both GSEs have improved their performance over the longer period from 1992 to 1996. The 1995 Study found that Fannie Mae's performance had improved much more than Freddie Mac's between 1992 and 1995. But, as noted above, the 1996 data show some convergence between the two GSEs although Fannie Mae continues to outperform Freddie Mac.

> The share of Fannie Mae's purchases accounted for by borrowers living in underserved areas increased by 5.0 percentage points between 1992 and 1996 -- from 22.5 percent in 1992 to a peak of 28.9 percent in 1995 before falling to 27.5 percent in 1996. The corresponding increase for Freddie Mac was only 1.8 percentage points -- from 22.6 percent in 1992 to a peak of 24.7 percent in 1994 before falling to 24.4 percent by 1996.

(h) Over the 1992-96 period, Fannie Mae has narrowed the gap between its affordable lending performance and that of other lenders in the conforming mortgage market.

> In 1992, low-income census tracts accounted for 8.7 percent of Fannie Mae's purchases and 11.5 percent of all loans originated in the FHA-eligible conforming market; this translated into a "Fannie Mae-to-market" ratio of 0.76 (8.7/11.5), as shown in Table A. By 1996, the low-income tract percentages were 11.6 percent for Fannie Mae and 13.3 percent for the market, yielding a ratio of 0.87. There were similar increases in the Fannie Mae-to-market ratios for other socioeconomic categories examined in this study. In fact, from 1994 to 1996, Fannie Mae exceeded depository institutions in the share of its funding for Hispanic borrowers and for properties located in high-minority tracts, but continued to fall short of the depositories on the other socioeconomic categories.

(i) Freddie Mac's improvement over the longer 1992-96 period has been more mixed -- in some cases it has improved slightly relative to the market but in other cases it has actually declined relative to the market.

> Between 1992 and 1996, the Freddie Mac-to-market ratio for very-low-income borrowers increased from 0.72 to 0.80 (see Table A). However, for some other

[5] Appendix B discusses the 1995-96 convergence between Fannie Mae and Freddie Mac when the mortgage market definition is expanded to include "non-FHA-eligible" conforming loans.

> categories examined here, Freddie Mac's performance either declined relative to the overall market or showed only very slight improvement. For instance, the Freddie Mac-to-market ratio for underserved areas declined from 0.87 in 1992 to 0.83 in 1996, while the ratio for African-American borrowers increased slightly from 0.66 to 0.70.

(4) Main Finding -- Down Payments on GSE-purchased Loans

(j) The 1995 Study noted a surprising characteristic of the GSEs' loan purchases that should be mentioned again -- the GSEs' lower-income loans frequently do not appear to be addressing problems of affordability such as lack of cash for down payment. A noticeable pattern among lower-income loans purchased by the GSEs is the predominance of loans with high down payments. For this and other reasons, a recent study by Federal Reserve staff concluded that the GSEs account for only 4-5 percent of the credit support provided to lower-income and minority borrowers (Canner, et al., 1996).

> As reported in HUD's Privatization Study, almost 60 percent of the GSEs' purchases of very-low-income loans in 1995 had down payments of 20 percent or more, compared with about 50 percent of their purchases of higher-income loans (HUD, 1996). The explanation for the seemingly large percentage of high down payment loans among the GSEs' lower-income loan purchases requires further study.

The next section discusses some data issues and Sections D-G discuss the above findings in more detail. Section H offers some conclusions.

C. Data Sources and Market Definitions

Data Sources. Since 1993, the GSEs have been providing HUD with annual loan-level data that includes detailed mortgage characteristics for all of their purchase transactions. This "GSE data base" is useful for analyzing the financial, borrower and locational characteristics of GSE loan purchases, for measuring changes in GSE performance over time, and for comparing Fannie Mae and Freddie Mac. This data base is used here to verify HMDA-reported data on GSE purchases.[6]

In order to compare the GSEs with the primary market, it is necessary to use HMDA data, which provides information on both primary market originations and secondary market purchases.

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[6] See Table A.1 in Appendix A for a comparison of the borrower and locational characteristics of GSE mortgage purchases as reported by HMDA and by the GSEs' own data. The two data bases yield similar distributions at the national level for the affordable lending categories examined in this study. For an analysis of GSE purchases using the GSE-reported data, see Manchester, et al. (1998).

Thus, HMDA allows comparisons of GSE performance with portfolio lenders such as banks and thrifts.

There are a number of technical issues regarding the coverage and potential biases of HMDA data. For example, HMDA reporters are only required to report the location of loans originated in metropolitan areas. It is also important to distinguish different types of loans (investor loans, manufactured housing loans) when analyzing HMDA data. These and other issues are noted throughout the discussion and are explained in detail in Appendix A of the 1995 Study.

Market Definitions. Table 1 gives an overview of single-family lending as reported by HMDA for 1996. The GSEs purchase loans in the conforming conventional sector of the mortgage market, which in 1996 included all conventional (non-government-insured) loans less than or equal to $207,000. Table 1 presents separate data for the "FHA-eligible" portion of this market. FHA-eligible loans are conventional loans that fall within the FHA maximum loan limit for each metropolitan area, which is typically equal to 95 percent of each area's median house price.[7] Thus, this market definition facilitates comparisons with FHA-insured loans. As shown in Table 1, "FHA-eligible" loans account for almost two-thirds of conforming conventional home purchase loans. For purposes of comparison, data covering the entire conforming market are reported in Appendix B.

The most appropriate comparisons for the GSEs are with the retained portfolios of depository institutions (banks and thrifts) also operating in the conforming market. However, data from other sectors, such as FHA and the Department of Veterans Affairs (VA), are also presented in order to provide a complete picture of the mortgage market. There has been a long-standing issue about whether conventional manufactured home loans should be included in market data that are being compared with GSE data. Because manufactured home loans generally do not meet the GSEs' underwriting standards, Fannie Mae and Freddie Mac have argued that manufactured home loans should not be considered in such comparisons. Similar concerns have been raised by the GSEs about below-investment-grade loans, or so-called "B&C" loans, which are also included in HMDA data.

The tables below exclude from the conforming market totals loans by 7 lenders that originate primarily manufactured home loans and loans by 41 lenders that originate primarily "B&C" quality loans. Because manufactured home and "B&C" loans are a growing source of affordable lending, the socioeconomic characteristics of these borrowers are provided as separate exhibits in some of the tables.[8]

[7] Specifically, in 1996, the FHA loan limit was 95 percent of the area median house price, subject to a minimum of $78,660 (38 percent of the conforming loan limit) and a maximum of $155,250 (75 percent of the conforming loan limit).

[8] Data on manufactured home and B&C loans are presented separately to highlight characteristics of the borrowers taking out these loans. Our separate treatment of these loans does not necessarily mean that the

Finally, it should be noted that this analysis focuses on the funding of mortgages originated during 1996. In any given year, the GSEs also purchase seasoned or prior-year mortgages; for example, almost 25 percent of the GSEs' mortgage purchases during 1996 involved mortgages originated prior to 1996. In general, the borrower characteristics of the GSEs' prior-year loan purchases resemble those of their purchases of current-year originations; therefore, the "distribution of business" data reported below would not be much affected by including the GSEs' purchases of seasoned loans. However, because they depend on the absolute number of loans, the "market share" estimates reported below do vary depending on the treatment of prior year loans. Therefore, a method is described below for adjusting the market share estimates to account for future GSE purchases of 1996 mortgages.

D. Borrower and Neighborhood Characteristics of 1996 Mortgages

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authors agree with the GSEs' arguments for excluding these loans from the conforming market definition when analyzing their affordable lending performance. Also, see Scheessele (1997) for the effects on HMDA data of the recent increase in HMDA reporting by manufactured home and B&C lenders.

Table 2 reports borrower and census tract characteristics of home purchase mortgages originated by various market segments in metropolitan areas during 1996. Each "distribution of business" percentage reported in Table 2 indicates the importance of a particular borrower or geographic subgroup in the mortgage lending activity of a market sector. For example, very-low-income borrowers[9] accounted for 13.5 percent of the GSEs' total purchases of FHA-eligible home loans originated in metropolitan areas in 1996. Corresponding figures for other categories were 4.4 percent for African-American borrowers, 6.9 percent for Hispanic borrowers, 11.0 percent for borrowers living in low-income census tracts, and 26.2 percent for borrowers living in underserved areas as defined by HUD.[10]

The above percentages for the GSEs are difficult to interpret without similar data for the overall market or specific market segments of interest. For example, comparable data for FHA reported in Table 2 indicates that 20.1 percent of FHA's borrowers had very low incomes, 14.3 percent were African American, 15.5 percent were Hispanic, 18.9 percent lived in low-income census tracts, and 40.6 percent lived in underserved areas. FHA's shares for these groups are much higher than the GSEs' shares, which means that affordable lending is a more important component of FHA's business than of the GSEs' purchases. This is not surprising, given that FHA's mission is to focus on the more credit-constrained borrowers purchasing a home for the first time. In 1996, about 75

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[9] Those borrowers with incomes less than or equal to 60 percent of area median income.

[10] A metropolitan tract is underserved if tract median family income is no more than 90 percent of area median family income or minorities comprise at least 30 percent of a tract's population and tract-to-area median family income does not exceed 120 percent.

percent of FHA home purchase loans were for first-time homebuyers, compared with about 30 percent of loans purchased by the GSEs.[11]

Comparisons with Portfolio Lenders. The relevant comparison for the GSEs is with the non-GSE portion of the conventional conforming market which consists mainly of portfolio lenders such as banks and thrifts. In general, loans sold to the GSEs in 1996 were less likely to be for underserved borrowers and their neighborhoods than were loans retained by portfolio lenders, especially those held by commercial banks. For example, very-low-income borrowers accounted for 13.5 percent of loans purchased by the GSEs compared with 19.1 percent of loans retained by banks. African-American borrowers accounted for 3.8 percent of loans sold to Freddie Mac and 4.8 percent of loans sold to Fannie Mae, compared with 5.8 percent of loans retained by banks. On the other hand, Hispanic borrowers accounted for a much larger share of loans sold to Fannie Mae (7.9 percent) than loans retained by banks (5.6 percent).

[11] In a more comprehensive study, Bunce et al. (1995) found that FHA underwriting and programs remained substantially more flexible when compared with the new conventional affordable lending initiatives, and that FHA and conventional loans were made to significantly different types of borrowers. Also the General Accounting Office (1996) reported that there was little overlap between FHA's more credit-constrained borrowers and borrowers insured by private mortgage insurers.

The neighborhood data in Table 2 show similar differentials between the GSEs and banks. Low-income census tracts accounted for 10.1 percent of loans sold to Freddie Mac and 11.6 percent of loans sold to Fannie Mae, compared with 15.5 percent of loans retained by banks. High African-American neighborhoods[12] accounted for 3.7 percent of Freddie Mac's loans and 4.6 percent of Fannie Mae's loans, compared with 5.9 percent of bank loans. However, when the neighborhood definition is changed to include all minorities (mainly adding Hispanics and Asian-Americans), high-minority census tracts accounted for a larger proportion of the loans purchased by Fannie Mae (16.3 percent) than of the mortgages retained by banks (13.4 percent).

In general, the above comparisons based on 1996 HMDA data suggest the same findings as in the 1995 Study -- that the GSEs are not doing as good a job as portfolio lenders in funding underserved borrowers and their neighborhoods. Freddie Mac's affordable lending performance, in particular, stands out as lagging other sectors of the market. Fannie Mae funds underserved borrowers and their neighborhoods at a much higher rate than Freddie Mac. In fact, Fannie Mae's performance in some instances approaches or exceeds that of the thrift industry (see Table 2).

Factors Explaining Portfolio Lenders' Performance. There are several reasons why portfolio lenders might better serve disadvantaged borrowers and their neighborhoods than the GSEs. First, some point out that portfolio lenders have extensive knowledge of their communities, which they are able to utilize to manage credit risk.[13] Having direct interactions with their borrowers may enable portfolio lenders to assess credit risk more accurately, thereby allowing them to underwrite loans more flexibly than firms strictly following the GSEs' guidelines, which do not reflect this detailed, local-market knowledge. Secondary market firms such as the GSEs must set underwriting standards more strictly to compensate for the fact that they cannot directly evaluate risk.

A second important factor influencing the types of loans held by portfolio lenders is the Community Reinvestment Act (CRA), which requires depository institutions to help meet the credit

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[12] High African-American neighborhoods are census tracts where African Americans account for 30 percent or more of the tract population.

[13] See Canner and Passmore (1995) and Canner et al. (1996).

needs of their communities. CRA provides an incentive for portfolio lenders to initiate affordable lending programs with underwriting flexibility, and the loans are often held in portfolio because they do not conform to the GSEs' underwriting standards.

These factors may explain why portfolio lenders are retaining a large share of the affordable loans that they originate. However, in the 1992 GSE Act, Congress stated that it expected the GSEs to lead the industry in the financing of homes for lower-income borrowers and for properties in underserved neighborhoods. Congress expected the GSEs to meet public purposes in return for the sizeable benefits that accrue to them from their Federal charters.[14] To focus the GSEs' efforts on affordable lending, Congress established three housing goals for the GSEs and required that they submit annual reports to HUD on their performance with respect to these goals. HUD's recent privatization study showed that the GSEs have significantly improved their affordable lending performance since the housing goals were first established (HUD, 1996). An important question is whether the GSEs have improved their affordable lending performance relative to that of other lenders, or whether their improvement has fallen short of the gains made by other lenders. Section E uses 1992-1996 HMDA data to answer this question.

E. Trends in Affordable Lending

During the 1990s the mortgage industry has markedly increased its outreach efforts and new products aimed at serving low-income and minority borrowers and their communities. The GSEs, along with private lenders and private mortgage insurers, have played an important role in this increase in affordable lending. Fannie Mae and Freddie Mac have developed special mortgage products such as the 97-percent loan-to-value mortgage and have entered into partnerships with local governments and nonprofit organizations to increase mortgage access to underserved borrowers. Even more importantly, the GSEs have modified their underwriting standards to address the needs of families who have found it difficult to qualify under traditional guidelines. For instance, they now allow loan approval based on "income stability," which helps lesser-skilled workers who, despite frequent job changes, manage to earn a steady income.

[14] See the U.S. Treasury (1996), General Accounting Office (1996), and the Congressional Budget Office (1996) for dollar estimates of the substantial benefits that accrue to Fannie Mae and Freddie Mac from their public sponsorship.

Overall Market Trends. The HMDA data reported in Table 3 on trends in affordable lending suggest that the industry initiatives are working, although there does appear to be a recent decline in the market share of affordable loans.[15] For the most part, the proportion of conventional mortgage lending going to disadvantaged families and their neighborhoods increased consistently between 1992 and 1995, but then declined slightly in 1996. For example, the share of conforming market loans going to underserved areas increased from 26.1 percent to 29.8 percent during the 1992-95 period, before falling slightly to 29.3 in 1996. Similarly, the share for African Americans and Hispanics increased from 8.3 percent in 1992 to 13.3 percent in 1995 (an increase of 60 percent) before falling to 12.1 percent in 1996. Very-low-income borrowers make up the only category reported in Table 3 that experienced an increase in market share between 1995 and 1996.[16]

While low interest rates, income growth and moderate house price inflation made homeownership very affordable during this period, most observers think that the new industry initiatives were also an important factor explaining the improvement in lending to low-income and minority families.

Recent Trends for the GSEs -- 1995 to 1996. The trend data in Table 3 show that the affordable lending shares for Freddie Mac either increased, remained the same, or did not decline as much as those for Fannie Mae and the overall market between 1995 and 1996. In fact, for the first time, Freddie Mac's performance actually improved relative to Fannie Mae's performance. For

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[15] Available information on mortgage lending during 1997 suggests that the decline in the market share for affordable loans between 1995 and 1996 may reverse itself in 1997. A survey of major metropolitan markets by the Chicago Title (1998) shows an increase in minority lending during 1997.

[16] Note that the percentages for very-low-income borrowers declined from 16.2 percent in 1994 to 14.9 percent in 1995 and then rose to 16.4 percent in 1996. These shifts in the market share could be partially due to our updating the definition of the FHA-eligible market with revised (and higher) FHA loan limits that took effect in 1995 and 1996. Table B.2 for the entire conforming market (which are not affected by the FHA-eligible loan limits) shows a smaller increase (from 10.2 percent to 10.8 percent) in the very-low-income share from 1995 to 1996.

example, the share of Freddie Mac's purchases in high-minority census tracts increased between 1995 and 1996 while the corresponding share for Fannie Mae decreased. Similarly, the share of Freddie Mac's loans for African-American and Hispanic borrowers declined only modestly between 1995 and 1996 (from 9.8 percent to 9.3 percent) while the corresponding share for Fannie Mae declined more significantly (from 14.6 percent to 12.7 percent). Thus, while Fannie Mae continues to outperform Freddie Mac, the differential in their relative performance declined during 1996.

This raises the question of whether Fannie Mae's performance declined between 1995 and 1996 relative to the primary market, or did Fannie Mae's performance simply follow market trends. To examine this, Table 3 includes "Fannie Mae-to-market" ratios of performance for both 1995 and 1996. For example, in 1995, African-American borrowers accounted for 6.0 percent of Fannie Mae's purchases and for 6.1 percent of the market, yielding a 1995 "Fannie Mae-to-market" ratio of 0.98. In 1996, the ratio for African-American borrowers fell to 0.89, indicating that Fannie Mae's performance declined more than the overall market. The "Fannie Mae-to-market" ratios for the remaining affordable categories in Table 3 also declined between 1995 and 1996, but only moderately. Thus, except for African-American borrowers, Fannie Mae's affordable lending performance tended to follow overall market trends between 1995 and 1996.

Longer-term Trends for the GSEs -- 1992 to 1996. The GSEs' performance over the longer period since 1992 is also shown in Table 3. Both the GSEs and the depositories (banks and thrifts) have improved their affordable lending performance since 1992. Fannie Mae has significantly improved its affordable lending performance relative to depositories, which is consistent with the many special programs that Fannie Mae has initiated over the past few years. For example, in 1992, underserved areas accounted for 22.5 percent of Fannie Mae’s home loan purchases and 29.8 percent of home purchase loans retained by depositories, for a "Fannie Mae-to-depositories" ratio of 0.76 (22.5/29.8). By 1996, this ratio for underserved areas had risen to 0.90 (27.5/30.6) -- that is, Fannie Mae’s performance had increased from 76 percent to 90 percent of the depositories' performance.

Freddie Mac also improved its performance relative to the depositories between 1992 and 1996, but not as much as Fannie Mae. While Freddie Mac's underserved area percentage (22.6 percent) was approximately the same as Fannie Mae's in 1992, its percentage increased to only 24.4 percent by 1996. In other words, the "Freddie Mac-to-depositories" ratio for underserved areas increased from 0.76 in 1992 to 0.80 in 1996, while Fannie Mae's ratio increased from 0.76 to 0.90 over the same period.

Similar analysis can be conducted comparing each GSE's 1992-96 performance relative to the overall market. Table 3 reports in parentheses changes in the GSEs' performance relative to the overall conforming conventional market. As noted earlier, some expect the GSEs to lead the conforming market in funding affordable loans. The conclusions for Fannie Mae remain the same as discussed above -- since 1992 the shares of Fannie Mae's purchases going to lower-income and minority borrowers and their neighborhoods have increased relative to the corresponding shares for the overall market. While Fannie Mae's performance fell off somewhat between 1995 and 1996, its overall performance since 1992 has significantly reduced the gap between its performance and that of the market. Still, in 1996, Fannie Mae continued to fall short of the market and depository institutions on important dimensions of affordable lending.

Freddie Mac's improvement since 1992, on the other hand, has often not been large enough to significantly reduce its affordable lending gap relative to the conforming market. As noted above, Freddie Mac stood out by improving its relative performance between 1995 and 1996; however, its performance over the longer 1992-96 period either declined relative to the market or showed only very slight improvement for most socioeconomic categories examined here. For example, the "Freddie-Mac-to-market" ratio for low-income census tracts declined from 0.80 in 1992 to 0.76 in 1996, while the ratio for African-American borrowers increased slightly from 0.66 to 0.70 (see Table 3). Freddie Mac's most significant improvement came on the very-low-income borrower category, where the "Freddie-Mac-to-market" ratio increased from 0.72 in 1992 to 0.80 in 1996.

To summarize, over the 1992 to 1996 period, Freddie Mac, for the most part, has improved its performance relative to depository lenders but has not improved its performance relative to the overall conforming market.[17] Fannie Mae has improved its performance relative to both depositories and the overall market. In 1996, Fannie Mae's performance exceeded the market for some categories (e.g., Hispanic borrowers and high-minority tracts); however, Fannie Mae's performance continued to fall significantly short of portfolio lenders, especially commercial banks, on most dimensions of affordable lending. Freddie Mac's 1996 performance fell short of both portfolio lenders and the overall conforming market on all dimensions of affordable lending.

F. Market Share Data for 1996

The 1995 Study also examined the overall share of the affordable lending market accounted for by major sectors such as FHA and the GSEs. Even if a high percentage of a market sector's business is made to a particular disadvantaged group, it is not necessarily true that the sector plays a major role in funding mortgages for that group. The absolute size of the market sector must also be taken into account in order to determine the sector's "market share of total lending" to a disadvantaged group.

More specifically, the "distribution of business" comparisons between FHA and the GSEs did not take into account differences between the number of loans purchased by the GSEs and the number of loans insured by FHA. Because the aggregate volume of GSE business significantly exceeds that of FHA, in some cases the absolute numbers of loans of various types purchased by the GSEs can approach or even exceed the corresponding numbers of loans insured by FHA. Thus, one has to keep the size of each organization's operation in mind when considering its importance to a

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[17] The reason for this is the large improvement made by Fannie Mae which impacts the trend data of the overall market.

particular subgroup.[18]

The "market share" data reported in Table 4 measure the importance of the GSEs in funding lower-income families, minorities, and underserved areas, by dividing the number of

[18] For example, first-time homebuyers accounted for over 70 percent of FHA's home loan business during 1996 and about 30 percent of the GSEs' home loan purchases, for an "FHA-to-GSE" ratio of over two. However, in terms of the number of first-time homebuyer loans, FHA insured 584,987 during 1996 and the GSEs purchased 478,209, which yields a lower "FHA-to-GSE" ratio of 1.2.

GSE loan purchases for each subgroup by total market originations for that subgroup.[19] In this section, the market is defined as all FHA-eligible home purchase mortgages in metropolitan areas.[20]

In 1996, it is estimated that the GSEs purchased 27 percent of all FHA-eligible home purchase loans and 16-23 percent of loans in the affordable lending categories listed in Table 4. These data show that the GSEs' overall market share is much larger than their market shares for the affordable lending categories. The situation is reverse for FHA. FHA insured 27 percent of all FHA-eligible loans and 32-44 percent of loans in the affordable lending categories. For example, FHA insured 44 percent of all loans for African-American and Hispanic borrowers, and 34 percent of loans financing properties in underserved areas. The GSEs, on the other hand, purchased only 16 percent of all African-American and Hispanic loans and 21 percent of underserved area loans.

[19] Market share numbers such as those reported in Table 4 do not reflect the actual credit risk borne by the GSEs since many of the affordable loans purchased by the GSEs have high down payments. See Canner and Passmore (1995, 1996) for a discussion of credit risk borne by the GSEs.

[20] Specifically, the market includes FHA-insured mortgages, loans guaranteed by the Department of Veterans Affairs(VA), and all FHA-eligible conforming conventional loans (including mobile home and B&C loans). Readers interested in market shares including non-FHA-eligible conventional loans should see Table B.3 in Appendix B. As explained Appendix A, the market share figures reported here and in Table B.3 are estimates based on analysis of GSE purchases, FHA-insured loans, and the coverage of other mortgages in HMDA data.

Seasoned Loans. The market share estimates reported in Table 4 consider the GSEs' purchases in 1996 of mortgages that were also originated in 1996. During any particular year, the GSEs also purchase mortgages that were originated in prior years. Therefore, it can be expected that during 1997 (and later years), the GSEs will purchase additional 1996 loans.[21] The impacts on the market share estimates of the GSEs' future purchases of additional 1996 loans can be estimated by adjusting the GSE market shares reported in Table 4 in a rather straight-forward manner. For example, assuming that the GSEs purchase 15 (25) percent more 1996 loans in future years would raise the GSEs' market shares as follows: for total loans, from 27 to 31 (34) percent; for African-American and Hispanic loans, from 16 to 19 (21) percent; and for underserved areas, from 21 percent to 24 (26) percent.[22]

[21] Deviating from analysis of current-year GSE purchases of current-year originations requires an assumption about the appropriate time period for including future-year purchases. For example, should only purchases in the following year be considered or should purchases with 3-4 years of seasoning also be considered. This raises several issues that are beyond the scope of this paper, which focuses on the GSEs' current-year purchases of current-year originations. The discussion that follows in the text simply illustrates for the reader how the GSE market shares can be adjusted depending on one's assumption about their future purchases of 1996 mortgages.

[22] For a 15 (25) percent increase, one divides the GSE shares in Table 4 by 0.87 (0.80). These figures assume that the GSEs' future purchases of 1996 loans will have the same distribution by borrower and census tract category as their 1996 purchases of these loans. This is a reasonable assumption based on the GSEs' past purchasing behavior but, of course, their future purchases could prove to be different than their past purchases.

G. High Down Payments on GSEs' Lower-Income Loans

Recent studies have raised questions about whether lower-income loans purchased by the GSEs are in fact "affordable loans" as commonly perceived. Most consider lack of funds for down payments to be one of the main impediments to homeownership, particularly for lower-income families who find it difficult to accumulate enough cash for a down payment. As this section explains, a noticeable pattern among lower-income loans purchased by the GSEs is the predominance of loans with high down payments.

HUD's 1996 study regarding the possible privatization of Fannie Mae and Freddie Mac reported a rather surprising finding -- that the mortgages purchased by the GSEs for lower-income borrowers were as likely to have high down payments as the mortgages they purchased for higher-income borrowers (U.S. Department of HUD, 1996). For example, considering the GSEs' purchases of home purchase loans in 1995, 58 percent of very-low-income borrowers made a down payment of at least 20 percent, compared with less than 50 percent of borrowers from other income groups.[23] In addition, a surprisingly large percentage of the GSEs' first-time homebuyer loans had high down payments. In 1995, 35 percent of Fannie Mae's and 41 percent of Freddie Mac's first-time homebuyer loans had down payments of 20 percent or more. Essentially, the GSEs have been purchasing lower-income and first-time homebuyer loans with large down payments.

The Treasury Department reached similar conclusions in its 1996 report on the privatization of the GSEs. Based on data such as the above, the Treasury Department questioned whether the GSEs were influencing the availability of affordable mortgages and suggested that the lower-income loans purchased by the GSEs would have been funded by private market entities if the GSEs had not purchased them (U.S. Department of the Treasury, 1996).

Finally, a 1996 Federal Reserve study examined the degree to which different mortgage market institutions -- the GSEs, FHA, depositories, and private mortgage insurers -- are taking on the credit risk associated with funding affordable mortgages (Canner, et al., 1996). The Fed study combined market share and down payment data (such as reported in Tables 4 and 5) with data on projected foreclosure losses to arrive at an estimate of the credit risk assumed by each institution for each borrower group. The Fed study found that Fannie Mae and Freddie Mac together provided only 4-5 percent of the credit support for lower-income and minority borrowers and their neighborhoods. The relatively small role of the GSEs in providing credit support is due to their low level of funding for these groups and to the fact that they purchase mainly high down payment loans. FHA, on the other hand, provided about two-thirds of the credit support for lower-income and minority

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[23] Table 5 presents similar data for the GSEs' purchases during 1996. The data reported in Table 5 include both home purchase and refinance loans to be consistent with National File A of the GSE Public Use Data Base.

borrowers, reflecting FHA's large market shares for these groups and the fact that most FHA-insured loans have less-than-five-percent down payments.

H. Conclusions and Caveats

This paper has updated the authors' earlier study of the GSEs' role in affordable lending to include 1996 HMDA data. This update finds that the main conclusions from the 1995 Study continue to hold. The HMDA data show clearly that the GSEs are lagging other market sectors in the share of their funding for affordable loans. While the GSEs have significantly improved their performance since 1992, there is room for further improvement, particularly for Freddie Mac.

Caveats. As discussed in the 1995 Study, several caveats must be kept in mind when interpreting the data presented in this report:

(1) The GSEs have used similar data (HMDA and the GSE loan-level data) and reached almost the opposite conclusions as ours (FHLMC, 1995). Therefore, when reviewing studies such as this, one must pay particular attention to the methods and assumptions used by the researchers to adjust the data. Readers are referred to Appendix A of the 1995 paper for a full discussion of issues related to the quality and interpretation of HMDA data. Appendices A and B of this paper compare the GSEs' own data with HMDA data and present an alternative definition of the mortgage market.

(2) There are different viewpoints about the types of loans that should be included in analyses such as this. Some sectors are important sources of affordable lending that possibly should be excluded from comparisons with the GSEs. For example, it may not be appropriate to compare the FHA with the GSEs because the FHA is government-owned with a specific mandate to serve the most credit-constrained borrowers. That is why we focus on comparisons of the GSEs with portfolio lenders in the conventional market.

The GSEs believe that manufactured home loans should be excluded from comparisons with them because only a small portion of these loans meet their underwriting standards. We have included loans for 7 manufactured home lenders as a separate exhibit in Table 2 to highlight that industry's important contribution to affordable housing. It is beyond the scope of this paper to resolve the issue of the extent to which manufactured home loans should be included in market definitions for comparisons with GSE purchases. But obviously, including these loans in the market definition would show an even wider gap between the GSEs' performance and that of primary lenders.

A similar issue surrounds so-called "B&C" loans which the GSEs have recently started purchasing. We have presented data for 41 lenders that originate primarily B&C loans. The GSEs have argued that these B&C loans as well as B&C loans originated and retained by depositories should be excluded from comparisons with their purchases because those loans are not "investment grade". Data are not available to separate depository loans according to investment grade.

Still, it is appropriate to compare the total inventory of retained depository loans with the loans purchased by the GSEs. Both sectors receive Federal benefits and their relative efforts in the affordable lending area are a topic of interest to policy makers. As discussed earlier, the fact that one can explain why depository institutions are doing a better job funding affordable loans than the GSEs does not mean that the situation should stay the same. Some think that the GSEs should be doing a better job than the depository institutions (that is, "leading the industry") because of the enormous benefits that they accrue from their Federal charters.

(3) This paper uses nationwide data to compare the GSEs with other market participants. Thus, it provides only a broad picture of trends in affordable lending. More disaggregated analyses both at the individual lender level and at the regional and metropolitan area levels are needed to fully understand GSE mortgage purchases. The papers by John Lind (1996a,b) are examples of the types of disaggregated analyses that need to be done. HUD recently commissioned eleven small research grants that will analyze the GSEs' affordable lending performance using a variety of techniques and local area data bases. These studies should help fill the need for more disaggregated analysis of the GSEs' mortgage purchases.

APPENDIX A

HMDA METHODOLOGY

This appendix identifies loans that are excluded from this analysis, discusses HMDA's coverage of mortgage market activity, and explains how the market share estimates are derived. Readers are referred to Appendix A of Bunce and Scheessele (1996) for a more complete discussion of these issues.[24]

1. Brief Background on HMDA

[24] In addition, for other discussions about the scope and coverage of HMDA data, including its major gaps, see Avery, Beeson, and Sniderman (1994 and 1995), Yezer (1995), Horne (1994), Canner and Gabriel (1992), Canner and Passmore (1995) and Canner and Smith (1991 and 1992), and Scheessele (1997).

HMDA data is the most comprehensive source of information on primary mortgage market originations and secondary market loan purchases. HMDA provides information on the borrower (income, race and ethnicity, and sex) and locational (census tract, metropolitan area) characteristics of lending institutions' originations and purchases of mortgages.[25] However, HMDA is not a complete census of mortgage origination and secondary market activity in the United States. HMDA data is only required for lenders that originate loans for properties in metropolitan areas.[26] In addition, some metropolitan lenders are exempt from HMDA reporting requirements.[27]

2. Loans Excluded from the Analysis

Missing Data. A lender may be required to comply with HMDA but may not be required to report all the borrower and locational information about the loan.[28] Missing data makes it

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[25] HMDA was enacted in 1975 in response to Congressional concerns that depository institutions (mainly banks, thrifts and their subsidiaries) were not adequately serving low-income and high-minority neighborhoods. HMDA required these institutions to report annually their mortgage lending by census tract location; with this information, the public could assess whether banks and thrifts were adequately serving their communities. HMDA reporting was expanded in 1990 to provide information on the disposition of loan applications (i.e., approved and accepted, approved but not accepted by the borrower, denied, withdrawn, or not completed), to include activity of large independent mortgage companies, and to provide information on the race and income of individual loan applicants. These data were needed to assist in the detection of lending discrimination. Finally, an additional expansion in 1993 covered mortgage companies that originated 100 or more home purchase loans in the preceding calendar year.

[26] HMDA does include a small number of mortgage originations for properties in non-metropolitan areas but most of these loans are either manufactured home loans or loans located
in areas that are adjacent to a metropolitan area. A significant number of HMDA loans do not include any geographic identifiers.

[27] Loans financed by non-profit groups and consortiums of lenders are not likely to be reported under HMDA. State Housing Finance Agencies (HFAs) are another source of affordable lending. HFA-financed mortgages are likely reported under HMDA by the lender that originates these loans.

[28] A depository institution need not report borrower race, sex, or income if it has assets of $30 million dollars or less. A lender is not required to request race information if the application is taken by telephone. If an application is received by mail, the lender must request race information, but the borrower does not have to provide it. Lenders need not report borrower income, sex, or race for loans purchased from other lending institutions. A lender does not report borrower income information if it does not take income into account when making the credit decision (e.g., FHA streamline refinance loans.) Lenders need not geocode loan application data for properties located in metropolitan areas in which it does not have a home or branch office or for properties in non-metropolitan areas.

more difficult to evaluate the affordable lending behavior of primary and secondary market participants, since we cannot determine whether loans are for low-income or minority borrowers or borrowers located in low-income neighborhoods. For the distribution of business estimates reported in this paper, we exclude loans with missing data from our calculations. The effect of excluding loans with missing data from the distribution of business estimates is equivalent to assuming that missing data is distributed in the same way as loans without missing data.

High Loan-to-Income Ratios. A significant number of HMDA loans have high loan-to-income ratios, the reason for which is unclear.[29] Bunce and Scheessele (1996) show that these high loan-to-income mortgages appear to be data errors. We excluded these loans from our analysis when calculating borrower income distributions, specifically, loans with loan-to-income ratios above six were not included.[30]

Small Loan Amounts. When calculating borrower income distributions, we also excluded loans with loan amounts less than $15,000. There are not many GSE purchases with loan amounts less than $15,000 reported under HMDA. However, a significant number of small loans are originated and held by commercial banks or their mortgage company subsidiaries. Bunce and Scheessele (1996) show that a large percentage of these loans are originated for very-low-income borrowers.[31]

Manufactured Housing and B&C Loans. Manufactured housing and subprime lending have increasingly played an important role in affordable housing. HMDA does not have a field on the data base that identifies a subprime or manufactured home lender. HUD compiled a list of 41 subprime and 7 manufactured home lenders from trade publications.[32] This list includes the largest manufactured home and subprime lenders.[33]

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[29] Canner and Passmore (1995) conclude that a portion of these loans may be loans for older borrowers with relatively high wealth-to-income ratios or for young borrowers with high future income potential.

[30] Canner and Smith (1994, 1995) excluded loans with loan-to-income ratios above four.

[31] A number of these mortgages may also be second mortgages.

[32] The seven manufactured home lenders are Oakwood Acceptance Corporation, South Trust Mobile Services, Green Tree Financial, CIT Group, Vanderbilt Mortgage, Deutsche Financial Corporation, and Belgravia Financial Services. The list also includes large subprime lenders like The Money Store, Champion Mortgage, and Ford Consumer Finance/Associates.

[33] The subprime market is more fragmented than the manufactured home loan market. A large subprime lender continues to have a small share of the market. For example, Origination News estimates that the largest subprime

We excluded manufactured home and subprime loans from our distribution of business comparisons because the GSEs do not purchase these loans. However, we included these loans

lender, Associates, has only 7 percent of the subprime market. The manufactured home loan market is more concentrated with Green Tree Financial Corporation controlling over 30 percent of the market.

in our market share estimates in order to accurately measure the GSEs' role in the affordable lending market.[34]

3. HMDA Coverage of GSE Data

Lenders are required to report to HMDA whether they hold an originated or purchased loan in portfolio or sell the loan on the secondary market during the calendar year. For loans sold on the secondary market, HMDA lenders are required to report the type of purchaser. The four main types of secondary market purchasers of conforming conventional mortgages include Fannie Mae and Freddie Mac, affiliates of the lender, and other purchasers such as non-affiliated institutions or pension funds.

Loans sold to Fannie Mae and Freddie Mac include direct sales of primary market originations as well as loans purchased by a lending institution and then resold to either Fannie Mae or Freddie Mac. Comparisons of HMDA data with the GSEs' loan level data show that HMDA's coverage of GSE purchases of home purchase loans was about almost 80 percent in 1994 and approximately 85 percent in 1995 and 1996. Bunce and Scheessele (1996) discussed specific reasons for under-reporting of GSE activity by HMDA.[35] HMDA under-reports GSE purchases primarily because lending institutions do not accurately report the sale of loans to the secondary market. Furthermore, a few large lenders are responsible for the majority of under-reporting.

This section discusses the implications of this under-reporting. HMDA under-reporting would not affect the distribution of business data if the unreported and missing data are not disproportionately concentrated in the affordable lending categories.

Distribution of Business. We have compared the borrower and census tract distributions of GSE purchases derived from HMDA data with the corresponding distributions derived from the GSEs' own loan-level data, and the two distributions, at the national level, are quite similar.[36]

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[34] Traditional conforming lenders are increasingly entering the manufactured home and subprime loan markets. Securitization of manufactured home and subprime loans is also increasing because of the popularity of these loans with investors. Finally, Freddie Mac has begun to purchase subprime loans in 1998 although in a limited way.

[35] For a more indepth analysis of HMDA’s coverage of GSE mortgage purchases, see Scheessele (1998).

[36] When comparing GSE loan-level data with HMDA data, HUD is only able to report publicly tables that have been derived from the public use version of the GSE loan-level data base. The public use data base that includes geographic identifiers does not distinguish between GSE purchases of home purchase and refinance mortgages, GSE purchases of owner and investor mortgages, and GSE purchases of FHA and conventional mortgages. Thus, the "GSE Data" reported in Table A.1 includes all these mortgage types. The "HMDA Data" reported in Table

A.1 includes GSE purchases of owner and investor home purchase and refinance conventional mortgages but does not include GSE purchases of FHA loans. If FHA loans were excluded from the "GSE Data", thus making it comparable with the "HMDA Data", the results would not change much, except that Fannie Mae's HMDA-GSE differences would decline (in an absolute sense) for very-low-income and low-income borrowers.

As shown in Table A.1, the HMDA-reported and GSE-reported distributions of GSE purchases differed by less than one percentage point for the borrower categories. For example, HMDA data indicates that 21.2 percent of Fannie Mae's purchases in 1996 were loans for low-income borrowers, slightly above the 21.5 percent based on Fannie Mae's loan-level data.

The distributions for African-American and Hispanic borrowers given in Table A.1 are even closer than those for borrower income. For example, HMDA reports that loans for African Americans accounted for 3.5 percent of Freddie Mac's 1996 purchases, compared with 3.4 percent based on Freddie Mac's loan-level data.

The differences between the HMDA and GSE data bases are also rather small for the census tract variables reported in Table A.1. For example, loans financing properties in high-African-American census tracts accounted for 4.0 percent of Fannie Mae's 1996 purchases based on HMDA and 4.1 percent based on Fannie Mae's own loan level data. The largest differentials between HMDA and GSE data occurred for Fannie Mae's purchases in high-minority tracts and underserved areas. For example, loans financing properties in underserved areas accounted for 21.9 percent of Fannie Mae's 1996 purchases based on HMDA and 23.8 percent based on Fannie Mae's own loan level data.

4. Market Share Estimates

In our estimates of market share, we do not rely solely on HMDA data. We use FHA's and the GSEs' own data to estimate their loans and then we make assumptions about the coverage of HMDA for other loans. First, we use FHA's own loan-level data to estimate FHA-insured loans for each of the various categories (low-income borrowers, underserved areas, etc.). The main issue here concerns loans with missing data; we re-allocate the loans with missing data among the various borrower and census tract categories using the distributions for loans where the data exist.

Second, we use the 1996 GSE Public Use Data Base to estimate GSE purchases of mortgages originated during 1996. For each of the borrower and census tract categories, this involved applying (a) percentages of unseasoned home loans purchased by the GSEs during 1996 (from National File B) to (b) the GSEs' total mortgage purchases in metropolitan areas (from the Census Tract File). Adjustments had to be made when the data were not comparable.[37]

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[37] For example, we used other publicly-reported information (Table 1 from the GSEs' Annual Housing Activities Reports) to adjust the mortgage data from the Census Tract file downward to eliminate investor loans; while the adjustments were not always exact, they are probably reasonable. There were also other cases where the data did not match exactly. Data on very-low-income borrowers from National File B were used to adjust the data for low-income borrowers from the Census Tract file. As noted in the text, we think the GSE estimates are robust with respect to the different adjustments and assumptions.

Finally, we adjusted the HMDA market data using different assumptions (ranging from 85 to 90) about the overall coverage of HMDA data. The market share results -- and particularly the patterns across the affordable lending categories and between the GSEs and FHA -- are not affected much by different coverage assumptions.

APPENDIX B

DATA FOR CONFORMING CONVENTIONAL MARKET

Tables 2-4 in the text limit the conforming conventional market to only FHA-eligible loans. This appendix expands that definition to include all conforming conventional loans, thus adding loans that are above the local FHA-limits but are below the national conforming loan limit, which was $207,000 in 1996. Inclusion of these larger loans provides a complete picture of the home loan purchase activity of the GSEs.

The effects on the "distribution of business" percentages of adding the larger loans can be seen by comparing Table 2 with Table B.1. First, the affordable percentages for FHA are not affected by these changes since all FHA loans were included earlier because they are, of course, "FHA-eligible". Second, the affordable percentages for the GSEs, depositories, and conforming market are all reduced because the added loans for these sectors are less likely to be loans for lower-income families and members of minority groups than are the FHA-eligible loans for these sectors. For example, 8.3 percent of all home loans purchased by the GSEs in 1996 were for very-low-income borrowers, compared with 13.5 of the FHA-eligible home loans that they purchased. Including the additional loans lowered the very-low-income percentage for banks slightly more than it did that for the GSEs. Very-low-income borrowers accounted for 13.5 percent of all loans originated and held by banks, compared with 19.1 percent of all FHA-eligible loans originated and held by banks.

There is one difference in the trend data that should be mentioned. When the total conforming market is considered, the market share for very-low-income borrowers increased by only 0.6 percent between 1995 to 1996 (see Table B.2). The corresponding increase for the "FHA-eligible" conforming market was much larger at 1.5 percent (see Table 3). Still, for the most part, adding the larger loans does not change any of the earlier conclusions concerning the GSEs' distribution of business to disadvantaged groups, the improvement in the GSEs' purchases of affordable loans since 1992, and the substantial differences in performance between Fannie Mae and Freddie Mac.

Table B.3 reports market shares for FHA and the GSEs, comparable to those reported in Table 4. In this case, the market includes all home purchase loans in metropolitan areas except jumbo loans above the conforming loan limit of $207,000. Specifically, the market is defined as (1) FHA loans, (2) loans guaranteed by the Veterans Administration (VA), and (3) loans originated in the conforming conventional market, including manufactured housing and B&C loans. In Tables B.1 and B.2, the "conforming market" figures included (3), but exclude manufactured housing and B&C loans.

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