

**The GSEs' Funding of Affordable Loans: A 1999 Update**  
**ABSTRACT**

This study examines the borrower and neighborhood characteristics of single-family mortgages purchased by Fannie Mae and Freddie Mac, the two major Government Sponsored Enterprises (GSEs) in the conventional secondary market. The purpose of the study is to determine whether Fannie Mae and Freddie Mac lead or lag the overall conventional conforming mortgage market in funding loans for low-income borrowers and other groups who historically have not been well served by the mortgage market. This study is the third in a series of working papers examining the affordable lending performance of the GSEs. There are two main findings. First, while both GSEs have improved their affordable lending performance since 1992, they continue to lag the conventional conforming market in funding mortgages for lower-income borrowers and for properties located in low-income and high-minority census tracts (i.e., underserved areas). Second, Fannie Mae has traditionally out-performed Freddie Mac in purchasing loans for lower-income borrowers and underserved neighborhoods; however, the relative performance of the two GSEs has recently shifted, as Freddie Mac's performance slightly surpassed Fannie Mae's during 1999.

# The GSEs' Funding of Affordable Loans: A 1999 Update<sup>1</sup>

## I. Introduction and Main Findings<sup>2</sup>

The purpose of this study is to determine whether Fannie Mae and Freddie Mac lead or lag the overall mortgage market in funding affordable loans for low-income borrowers and other groups who historically have not been well served by the mortgage market. This issue has been highlighted by the recent affordable housing regulations for Fannie Mae and Freddie Mac and by discussions of the desirability of privatizing these two government-sponsored enterprises (GSEs). Fannie Mae and Freddie Mac receive substantial benefits from their Federal charters, mainly in the form of lower funding costs due to their "agency status". In exchange for their Federal benefits, they are required by Congress to promote access to mortgage credit for underserved families and their communities, as well as promote stability in the overall secondary market. This paper examines how well the GSEs are providing mortgage funding for low-income and other underserved families.

In this study, the characteristics (e.g., borrower income and race, location in low-income census tracts) of mortgages purchased by the GSEs are compared with those of all mortgages originated in the conventional conforming market and mortgages originated and retained by bank and thrift institutions. The GSEs' performance is measured from loan-level data that they report to HUD while information about the mortgage market is drawn from Home Mortgage Disclosure Act (HMDA) data. This study continues a line of research initiated in 1996 by staff of HUD's Office of Policy Development and Research. Bunce and Scheessele (1996, 1998) examined the GSEs' performance between 1992 and 1996, concluding that the GSEs lagged the overall market in funding affordable loans during that period. This study extends their analysis by including GSE and HMDA data for the years, 1997 to 1999. Following the earlier HUD research, this paper focuses on home purchase loans, which are important for homeownership opportunities.

The next subsection of this introduction provides background on the affordable lending market and the GSEs' mandate to improve their purchases of loans for targeted borrowers.<sup>3</sup> Then, the paper's main findings concerning the GSEs' performance are reported. This introductory section concludes with an outline of topics discussed in the main text and the technical appendices.

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<sup>1</sup> This study draws from and updates analyses reported in HUD's recently issued final rule on the GSEs' affordable housing goals (see HUD, 2000d). The author would like to thank Nana Farshad and Ian Keith from CBSI for their assistance in this project. The author also appreciates the advice and comments of Randall M. Scheessele of the Office of Policy Development and Research as well as the comments of Paul Manchester of the same office.

<sup>2</sup> The paper's main findings are provided on pages 4-9.

<sup>3</sup> The term "affordable lending" is used generically here to refer to lending for lower-income families and neighborhoods that have historically been underserved by the mortgage market.

## A. Background

The 1990s were years of increased affordable lending for low-income and other families who historically had been underserved by the conventional mortgage market. Lenders introduced and marketed special lending programs to low-income families and their neighborhoods, they revamped their underwriting standards to deal with the special circumstances of these families, and they attempted to prevent mortgage defaults by offering borrower counseling programs and developing innovative loss mitigation programs. Other actors in the conventional market, including Fannie Mae and Freddie Mac, also played an important role in what one study termed a revolution in affordable lending (Rutgers University, 1998). Home Mortgage Disclosure Act (HMDA) data show substantial growth in conventional lending to low-income and minority borrowers during the 1990s, which suggests that these new affordable lending initiatives are having an impact. Between 1993 and 1999, the number of loans to low-income and African-American borrowers more than doubled. Most observers generally agree that in addition to low interest rates and economic expansion, stronger regulation of depositories' Community Reinvestment Act (CRA) obligations and the affordable housing goals (discussed below) that HUD established for Fannie Mae and Freddie Mac have also contributed to this renewed emphasis on low-income and minority lending in the conventional market (Litan *et al.*, 2000). Evidence is also growing that lending to low-income families can be profitable, particularly when combined with intensive loss mitigation efforts to control credit risk.<sup>4</sup>

This study examines the record of Fannie Mae and Freddie Mac in providing mortgage funds for low-income borrowers and underserved neighborhoods. Fannie Mae and Freddie Mac are the two major government-sponsored enterprises (GSEs) in the secondary mortgage market. They purchase mortgages from primary lenders and either hold the mortgages in portfolio or sell them to other investors as mortgage-backed securities, with a guarantee that the investors will receive full and timely payment of principle and interest.<sup>5</sup> Several studies have documented the dominant role that the GSEs' purchase guidelines and underwriting standards play in determining the types of loans that primary lenders will originate in the conventional conforming market.<sup>6</sup>

In 1992, Congress expressed concern about the GSEs' funding of affordable loans for low-income families, particularly those living in inner-city neighborhoods that had been "redlined" by prime

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<sup>4</sup> While there is limited information on borrower defaults associated with the new affordable lending programs, there are some encouraging signs. For example, in a recent survey conducted by the Federal Reserve, lenders reported that most CRA loans are profitable although not as profitable as the lenders' standard products (Board of Governors, 2000). For an overview of the early default performance of the new affordable programs and of industry efforts to control default risk, see U.S. Department of Housing and Urban Development (2000a,b).

<sup>5</sup> For explanations of the overall role of Fannie Mae and Freddie Mac in the mortgage market, see the four Congressionally-mandated privatization studies conducted during 1996 by the U.S. Congressional Office (1996), U.S. General Accounting Office (1996), U.S. Department of Housing and Urban Development (1996), and U.S. Department of Treasury (1996).

<sup>6</sup> For a discussion of the GSEs' underwriting standards, see Rutgers University (1998), The Urban Institute (1999), and Van Order and Schnare (1994).

lenders.<sup>7</sup> Because of this concern, Congress established three affordable housing goals that the GSEs must meet:

1. **Low- and Moderate-Income Goal**, which targets borrowers with less-than-median-income;
2. **Special Affordable Goal**, which targets very low-income borrowers and low-income borrowers living in low-income census tracts; and;
3. **Geographically-Targeted or Underserved Areas Goal**, which targets low-income and high-minority neighborhoods.<sup>8</sup>

The main objective of the housing goals is to encourage Fannie Mae and Freddie Mac to introduce new affordable lending programs in underserved areas and to make prudent adjustments in their mortgage purchase standards that recognize the special circumstances of low-income families and others who have been found it difficult accessing credit in the conventional mortgage market. HUD, which has general regulatory authority over the GSEs, was tasked to establish specific targets for these three goals. Explanations of the goals are provided in HUD's recently issued final GSE rule, which calls for an increases in the levels of the housing goals beginning in year 2001. (U.S. Department of HUD, 2000d). For example, HUD is requiring that 31 percent of the GSEs' mortgage purchases serve underserved neighborhoods, a substantial increase from the existing underserved areas goal of 24 percent.

There have been several studies by HUD staff and other researchers concerning the GSEs' performance in providing affordable lending under the housing goals.<sup>9</sup> These studies focus on whether or not the GSEs are "leading the market" in funding affordable loans. "Leading the market" is typically determined by comparing the percentage of the GSEs' purchases accounted for by a particular affordable lending category (say loans for low-income families) with the corresponding percentage for loans originated in the overall conventional conforming market. Most of these studies conclude that while the GSEs have significantly improved their affordable loan purchases under the housing goals, their performance lags that of primary lenders (such as banks and thrifts) in the overall conventional market.<sup>10</sup>

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<sup>7</sup> 102d Congress, S. Rep. No. 282, pages 31, 33, and 42-43.

<sup>8</sup> Within metropolitan areas, underserved areas are census tracts where (1) median income of families in the tract does not exceed 90 percent of the metropolitan area median income or (2) minorities comprise 30 percent or more of the residents and the median income of families in the tract does not exceed 120 of area median income.

<sup>9</sup> See Bunce and Scheessele (1996, 1998), Canner and Gabriel (1992), Lind (1996a,b; 2000), Manchester (1998), Manchester *et al.* (1998), and U.S. Department of HUD (1996; 2000a-d). The GSE grant studies that HUD recently funded used a variety of data bases and analytical techniques to examine the GSEs' affordable lending performance; see Boxall and Silver (2000), Bradford (2000b), Case and Gillen (2000), and Williams (2000).

<sup>10</sup> Fannie Mae and Freddie Mac each conduct similar analyses but reach different conclusions -- they conclude that they match or exceed the primary market in funding affordable loans for lower-income families. Their analysis is reported in their comments on HUD's proposed GSE rule; see Fannie Mae (2000) and Freddie Mac (2000). See U.S. Department of Housing (2000d) for HUD's response to the GSEs' comments.

This study contributes to this issue by comparing the borrower and neighborhood characteristics of the GSEs' acquisition of home purchase mortgages with home loans originated in the market. This study takes advantage of the loan-level data that the GSEs report to HUD on the characteristics of loans that they purchase. In order to fully characterize the loans that the GSEs purchase, several analyses of these data are presented, either in the main body of the paper or in two appendices. This analysis is conducted at a very aggregate level, as the GSEs' purchases are reported for all metropolitan areas combined. Hopefully, this aggregate, descriptive analysis will identify useful research topics and provide a framework for follow-up research of a more disaggregative nature.

## **B. Main Findings**

The main finding of this study is Fannie Mae and Freddie Mac continue to lag the conventional conforming market in funding affordable home purchase loans for borrowers and neighborhoods targeted by the housing goals. The study also finds important shifts in the two GSEs' relative performance -- Freddie Mac exhibited much poorer performance than Fannie Mae during most of the 1990s but, during 1999, the goals-qualifying share of Freddie Mac's purchases was slightly higher than the corresponding share for Fannie Mae.<sup>11</sup>

Specifically, there are ten findings from this study related to the GSEs' purchases of goals-qualifying loans:

**(1) Since 1993, the mortgage industry has introduced new affordable lending programs and has allowed greater flexibility in underwriting lower-income loans. There is evidence that these programs are paying off in terms of more mortgages for low-income and minority borrowers. Fannie Mae and Freddie Mac have played an active role in this upsurge of affordable lending, as indicated by the high growth rates of their goals-qualifying business.**

Between 1993 and 1999, the GSEs' total purchases of home loans increased by 22 percent.<sup>12</sup> Their purchases of home loans for the two borrower income goals increased at much higher rates (121 percent for special affordable loans and 68 percent for low- and moderate-income loans) while their purchases of loans qualifying for the underserved areas goal increased at a modestly higher rate (32 percent).

**(2) Both Fannie Mae and Freddie Mac improved their purchases of affordable loans during the 1990s, as indicated by the increasing share of their business going to the goals-qualifying categories.<sup>13</sup>**

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<sup>11</sup> Throughout this paper, the term "goals-qualifying" refers to loans that qualify under the three GSE housing goals. The term "targeted borrowers" or "targeted groups" will refer to lower-income borrowers and others who have not been well-served by the mortgage market.

<sup>12</sup> Throughout these appendices, the terms "home loan" or "home mortgage" will refer to a "home purchase loan," as opposed to a "refinance loan."

<sup>13</sup> Of the two borrower-income goals, this analysis will typically focus on the special affordable category, which is a much more targeted category than the rather broadly defined low- and moderate-income (less-than-median-

Between 1992 and 1999, the special affordable share of Fannie Mae's business almost doubled, rising from 6.3 percent to 12.3 percent, while the underserved area share increased more modestly from 18.3 percent to 20.6 percent (see Table A). The figures for Freddie Mac are similar. The special affordable share of Freddie Mac's business almost doubled, rising from 6.5 percent to 12.5 percent, while the underserved area share also increased more modestly from 18.6 percent to 21.2 percent.

**(3) While both GSEs improved their performance during the 1990s, they lagged the market in providing affordable loans to low-income borrowers and underserved neighborhoods. Freddie Mac, in particular, fell far short of market performance. Fannie Mae's affordable lending performance was much better than Freddie Mac's over the 1993-1999 period as well as during the more recent 1996-1999 period when HUD's new housing goals were in effect.**

Between 1993 and 1999, 8.2 percent of Freddie Mac's mortgage purchases were for very low-income borrowers, compared with 9.5 percent of Fannie Mae's purchases, 14.5 percent of loans originated and retained by depositories, and 12.9 percent of loans originated in the conventional conforming market.

Between 1996 and 1999, 20.2 percent of Freddie Mac's purchases financed properties in underserved neighborhoods, compared with 22.3 percent of Fannie Mae's purchases, 25.7 percent of loans originated by depositories and 25.2 percent of loans originated in the conventional conforming market.

**(4) In the most recent year, 1999, both Fannie Mae and Freddie Mac fell significantly below the market in funding affordable loans.**

In 1999, special affordable loans accounted for 12.3 percent of Fannie Mae's purchases, 12.5 percent of Freddie Mac's purchases, and 17.3 percent of loans originated in the market; thus, the "Fannie-Mae-to-market" ratio was 0.71 and the "Freddie-Mac-to-market" ratio was 0.72. (See Table A.) In that same year, underserved areas loans accounted for 20.6 percent of Fannie Mae's purchases, 21.2 percent of Freddie Mac's purchases, and 25.8 percent of loans originated in the market -- yielding market ratios of approximately 0.80 for both GSEs. The fact that Freddie Mac's performance during 1999 was slightly better than Fannie Mae's performance seems at odds with the results reported in (3) above; the recent shift in performance between the two GSEs is explained in (5)-(9) below.

**(5) Recently, Fannie Mae's affordable lending performance has declined.**

The share of Fannie Mae's single-family business going to special affordable loans increased

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income) category.

from 11.7 in 1997 to a peak of 13.2 percent in 1998 before dropping to 12.3 percent in 1999. Fannie Mae's purchases of underserved areas loans declined throughout the 1997 to 1999 period, falling from 23.5 percent in 1997 to 22.9 percent in 1998 to 20.6 percent in 1999. (See Figure A.)

**(6) Recently, Freddie Mac's affordable lending performance has improved.**

The share of Freddie Mac's single-family business going to special affordable loans increased from 9.0 in 1997 to 11.3 percent in 1998 to 12.5 in 1999. Freddie Mac's purchases of underserved areas loans also increased between 1997 and 1999 but at a more modest rate -- from 19.9 percent in 1997 to 20.0 percent in 1998 to 21.2 percent in 1999. (See Figure A.)

**(7) These recent shifts have reversed the long-standing pattern of Fannie Mae outperforming Freddie Mac. Freddie Mac's performance in 1999 matched (in fact, slightly surpassed) Fannie Mae's performance, for the first time since 1992.**

Fannie Mae and Freddie Mac had practically the same performance in 1992 on the three housing goal categories -- special affordable loans accounted for 6.3 percent of Fannie Mae's purchases and 6.5 percent of Freddie Mac's purchases, for a "Fannie-Mae-to-Freddie-Mac" ratio of 0.97; the 1992 ratio for underserved areas was also 0.98 and that for low-mod, 1.02. (See Table A.) Reflecting Fannie Mae's much better performance, the special affordable "Fannie-Mae-to-Freddie-Mac" ratio had risen to 1.30 by 1997, the underserved areas ratio to 1.18, and the low-mod ratio to 1.10. However, the "Fannie-Mae-to-Freddie-Mac" ratio for the three goals-qualifying categories had fallen to slightly below one by 1999. 1999 was the first year since 1992 that Freddie Mac had outperformed Fannie Mae in purchasing affordable home loans (although only by a very slight margin).

**(8) Fannie Mae's performance relative to the market declined as a result of the recent shifts in its purchases of affordable loans. In 1999, Fannie Mae lagged the market even further than it did in earlier years.**

Until 1998, Fannie Mae had made progress closing its gap with the market on each of the three goals-qualifying categories. As shown in Table A, the "Fannie-Mae-to-market" ratio increased from 0.61 in 1992 to 0.85 in 1998 for the special affordable category and from 0.82 to 0.93 for the underserved areas category. However, Fannie Mae's decline in performance during 1999, combined with an increase in the market's share of goals-qualifying mortgages, resulted in the "Fannie-Mae-to-market" ratio declining sharply during 1999 -- to 0.71 for special affordable and 0.80 for underserved areas.

**(9) Freddie Mac's performance relative to the market improved as a result of the recent shifts in its purchases of affordable loans. Still, in 1999, Freddie Mac continued to lag the market in funding affordable loans.**

Unlike Fannie Mae, Freddie Mac had not made any progress through 1997 in closing its gap with the market on the three goals-qualifying categories. As shown in Table A, the "Freddie Mac-to-market" ratio for the special affordable category actually declined from 0.63 in 1992 to 0.59 in 1997. Freddie Mac's sharp improvement in special affordable purchases during 1998 and 1999 resulted in the "Freddie-Mac-to-market" ratios rising to 0.72. After declining from 0.84 in 1992 to 0.79 in 1997, the "Freddie-Mac-to-market" ratio for the underserved areas rose modestly to 0.82 between 1997 and 1999. Even after these improvements, Freddie Mac continued to fall significantly short of the market in 1999.

**(10) Appendix B to this report examines the GSEs' acquisitions of total loans (including refinance loans as well as home purchase loans). Findings from that analysis of the GSEs' performance relative to each other and relative to the market are similar to those summarized above for home purchase loans, with some minor differences.**

With respect to total loans, the recent shifts in performance between Fannie Mae and Freddie Mac occurred about one year earlier than those described above for home purchase loans. Freddie Mac essentially matched Fannie Mae in funding affordable loans during 1998 (rather than 1999) and significantly surpassed Fannie Mae during 1999. Both GSEs continued to fall significantly short of the market in 1999. For example, special affordable (underserved areas) loans accounted for 12.3 (21.8) percent of Fannie Mae's total purchases, 13.3 (23.5) percent of Freddie Mac's total purchases, and 17.3 (26.9) percent of newly-originated mortgages in the conventional conforming market (defined to exclude B&C loans).<sup>14</sup>

**Four Other Findings.** This study examined additional topics such as the affordable lending performance of major sectors (e.g., FHA, GSEs, depositories) of the overall mortgage market; the funding of loans for different racial and ethnic groups; and the use of HMDA data for measuring the characteristics of loans originated in the conventional conforming market. The main findings are reported as (11)-(14) below:

**(11) The GSEs account for a significant share of the total (government as well as conventional conforming) market for home purchase loans. 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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<sup>14</sup> As explained in Section III and Appendix B, this paper deducts an estimate of B&C loans from total (home purchase and refinance) mortgage originations in the conventional conforming market. The less risky A-minus portion of the subprime market is included in the market definition. As explained in Section III, deducting B&C loans from home purchase originations has little effect on the market percentages reported in (1)-(10) above.



It is estimated that in 1999 the GSEs' purchases were 41 percent of newly-originated home loans in metropolitan areas but were only 20-22 percent of loans for African-American and Hispanic borrowers and 29 percent of loans for low-income borrowers. In contrast, FHA, which focuses mainly on credit-constrained borrowers, insured 21 percent of all home purchase loans during 1999 but insured larger shares of home loans for African-American and Hispanic borrowers (41-42 percent) and for low-income borrowers (30-31 percent).

**(12) The share of Fannie Mae's and Freddie Mac's purchases of home loans for African-American borrowers exhibited different trends between 1997 and 1999, with Fannie Mae's share declining and Freddie Mac's share slightly increasing. In 1999, both GSEs' purchases of loans for African Americans fell significantly below the market. (See Figure B.)**

In 1997, African-American borrowers accounted for 4.5 percent of Fannie Mae's purchases, 3.2 percent of Freddie Mac's purchases, and 5.1 percent of the conventional conforming home purchase market. By 1999, Freddie Mac and the market had increased modestly (to 3.5 percent and 5.4 percent, respectively) while Fannie Mae had declined to 3.4 percent. Thus, in 1999, both GSEs' performance in funding of loans for African-American borrowers was only about 60 percent of the performance of the conventional conforming market.

**(13) The analysis in this paper raises questions about the overall performance of the conventional conforming market in financing homeownership for African-American and Hispanic borrowers. For these two groups of minority borrowers, the conventional conforming market may set a low standard for evaluating the performance of the GSEs. (See Figure C.)**

In 1999, African-American and Hispanic borrowers accounted for 12.5 percent of the home loans originated in the conventional conforming market of metropolitan areas, compared with 33.9 percent of the loans insured by FHA, and 17.6 percent of home loans originated in the total (government and conventional conforming combined) market. FHA, which accounted for only 21 percent of home loans in 1999, accounted for over 40 percent of all home loans going to African-American and Hispanic borrowers. There is evidence that some FHA borrowers might qualify for a conventional or GSE loan. In addition, some studies conclude that conventional lenders steer minority borrowers to higher-cost FHA loans. However, more research is needed before definitive conclusions can be reached about mortgage steering and the overlap between FHA and conventional loans.

**(14) Some studies have concluded that HMDA data overstate the share of market loans going to low-income borrowers and underserved areas. Data reported in Appendix A of this paper do not support this conclusion.**

Appendix A compares the low-income and underserved areas characteristics of the GSEs' purchases of newly-originated ("current-year") loans as reported both by the GSEs' own data and by HMDA data. For recent years, the HMDA data on loans sold to the GSEs do

not have higher percentages of low-income and underserved areas loans than the GSEs' own data on their purchases of newly-originated mortgages. While more research on this issue is needed, it appears that there is no bias in the HMDA-based market benchmarks used in this study.

### **C. Organization of the Remainder of the Paper**

Section II summarizes the growth in affordable lending during the 1990s and examines the performance of major segments of mortgage market, such as FHA, the GSEs and depositories (banks and thrifts). Section III provides a detailed analysis of the affordable lending performance of Fannie Mae and Freddie Mac relative to each other and relative to the conventional conforming market. Both Sections II and III focus on home purchase loans, which are linked to changes in homeownership. In addition to reporting findings about relative performance, this paper necessarily addresses several data and technical issues that arise when comparing the GSEs with the market. Much of the technical analysis is reported in Appendix A. Appendix B reports results for total loans (that is, refinance as well as home purchase loans).

## **II. Affordable Lending in the Mortgage Market<sup>15</sup>**

In the past few years, conventional lenders, private mortgage insurers and the GSEs have begun implementing changes to extend homeownership opportunities to lower-income and historically underserved households. The industry has started offering more customized products, more flexible underwriting, and expanded outreach so that the benefits of the mortgage market can be extended to those who have not been adequately served through traditional products, underwriting, and marketing. Subsection A briefly summarizes the various initiatives undertaken by the industry and the GSEs to expand affordable housing.

Subsection B then compares the major market sectors in terms of their focus on affordable lending. To place the GSEs in the context of the overall market, this section examines data for government (FHA, VA) loans as well as conventional conforming loans. The important role of FHA in the affordable lending market is highlighted and questions are raised about whether the conventional conforming market could be doing a better job helping low-income and minority borrowers obtain access to mortgage credit. With this general background, Section III will evaluate the GSEs' performance within the conventional conforming market.

### **A. Trends in Affordable Lending during the 1990s**

During the 1990s, the mortgage industry began offering a wide range of affordable lending programs designed to attract those who had not been adequately served through traditional programs. While the details of these affordable loan programs vary, they generally have four distinct elements: targeted groups, special marketing and outreach, the application of flexible

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<sup>15</sup> Readers not interested in this background section on affordable lending may want to proceed to Section III, which compares the GSEs and the primary conventional conforming market in terms of the three goals-qualifying categories.

underwriting, and the use of risk mitigation activities.<sup>16</sup> Targeted groups are usually defined with eligibility criteria tied to borrower or neighborhood income, loan-to-value ratios, homebuyer status (e.g., first-time homebuyers), and other factors. Borrower or neighborhood income is typically the most important eligibility criteria, with eligibility restricted to lower-income families or census tracts.

Special marketing typically includes homebuyer education programs and outreach through nonprofit and community groups that are active in targeted neighborhoods. In fact, partnership efforts are quite common with local community groups often responsible for screening the applicants and making recommendations to lenders. In addition, lenders sometimes pool their resources and operate their affordable programs through lender consortia.

Flexible underwriting is the perhaps the most important attribute of special lending programs. Flexible underwriting can have the following characteristics: low-down-payment loans, high debt-to-income ratios, reduced cash reserve requirements, and use of alternative credit history (such as payment of rent and utilities). To reduce the applicant's costs, lenders sometimes offer below-market interest rates and waive private mortgage insurance requirements. As noted above, these underwriting changes are often accompanied by homeownership and credit counseling to ensure homeowners are ready for the responsibilities of homeownership.

The industry has also engaged in intensive loss mitigation to control any extra default risks associated with their special lending programs. This can include quick follow-up calls to borrowers who miss a monthly payments as well as use of automated models that assist servicers in determining which loss mitigation strategy should be pursued for different situations involving a delinquent borrower. The industry's efforts to control the default risks of their special lending programs and the early default performance of these programs are both discussed in HUD (2000b).

**GSE Initiatives.** Fannie Mae and Freddie Mac have each been playing an active role in these market initiatives. During 1998, Fannie Mae introduced its "Flexible 97" and Freddie Mac introduced its "Alt 97" low down payment lending programs. Under these programs borrowers are required to put down only 3 percent of the purchase price. The down payment, as well as closing costs, can be obtained from a variety of sources, including gifts, grants or loans from a family member, the government, a non-profit agency and loans secured by life insurance policies, retirement accounts or other assets. The GSEs have recently started programs for "A-minus" borrowers (i.e., those with blemished credit) that offer interest rate reductions for those borrowers who are not delinquent on their mortgage payments for a period of two years.

In addition to developing new affordable products, the GSEs and lenders have been entering into partnerships with local governments and nonprofit organizations to increase mortgage access to underserved borrowers. Fannie Mae's partnership offices in more than 40

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<sup>16</sup> This description of affordable lending programs is taken from Avery *et al.* (1996). Also see Rutgers University (1998), The Urban Institute (1999), and HUD (2000b,d) for other descriptions of the rise in affordable lending during the 1990s.

central cities, serving to coordinate Fannie Mae’s programs with local lenders and affordable housing groups, are an example of this initiative.<sup>17</sup> Freddie Mac does not have a partnership office structure similar to Fannie Mae’s, but it has undertaken a number of initiatives in specific metropolitan areas.

The GSEs have also been modifying their underwriting standards to attempt to address the needs of families who find qualifying under traditional guidelines difficult. The changes to underwriting standards include, for example: using a stable income standard rather than a stable job standard, which particularly benefits low-skilled applicants who have successfully remained employed, even with frequent job changes; and allowing pooling of funds for qualification purposes, which benefits applicants with extended family members. In conjunction with changes in its underwriting standards, the GSEs' have encouraged homeownership counseling to ensure homeowners are ready for the responsibilities of homeownership and loss mitigation programs to keep families in homeownership and to control their own credit risks.

**1993-99 Trends.** HMDA data suggest that the industry and GSE initiatives are increasing the flow of credit to underserved borrowers. Between 1993 and 1999, conventional loans to low-income and minority families increased at much faster rates than loans to higher income and non-minority families. As shown below, conventional home purchase originations to African-American, Hispanic, and low-income borrowers more than doubled between 1993 and 1999.

	1993-99 Growth Rate	1993-99 Growth Rate
	All Home Loans	Conventional Home Loans
African-American Borrowers	91%	119%
Hispanic Borrowers	121%	117%
White Borrowers	34%	42%
Low-Income Borrower (Less Than 80% AMI)	86%	101%
Upper-Income Borrower (Greater Than 120% AMI)	51%	59%
Low-Income Census Tract	78%	98%
Upper-Income Census Tract	56%	63%

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<sup>17</sup> See Boxall and Silver (2000) for the functions of Fannie Mae's partnership offices.

The increase in GSE purchases for lower-income borrowers have showed a similar pattern -- while their annual purchases of all home loans increased by 22 percent between 1993 and 1999, their special affordable purchases increased by 121 percent and their low-mod purchases by 68 percent. The GSEs' purchases in underserved areas increased by 32 percent during this period.

While low interest rates and economic expansion certainly played an important role in the substantial increase in conventional affordable lending during the 1990s, most observers believe that the GSE housing goals and the Community Reinvestment Act (discussed later) were also important contributors.

## **B. Affordable Lending Shares by Major Market Segment**

Section III will compare the GSEs' purchases with loans originated by primary lenders in the conventional conforming market. As a useful context for these comparisons, it is important to examine the role of the conventional conforming market in funding affordable loans. Therefore, Table 1 reports lending data on home purchase loans for several major market sectors -- FHA, the GSEs, depositories (banks and thrift institutions), the conventional conforming market, and the total market for owner-occupied properties in metropolitan areas.<sup>18</sup> In this case, the "total" market consists of both the conventional conforming market and the government (mainly FHA and VA loans) market; "jumbo" loans above the conventional conforming loan limit are excluded from this analysis.<sup>19</sup> HMDA is the source of the FHA, depository, and market data, while the GSE data is their own data. Lending data for low-income, African-American, Hispanic, and minority borrowers are provided as well as data for four types of neighborhoods -- low-income census tracts, tracts where minorities (African-Americans) account for more than 30 percent of the census tract population, and underserved areas as defined by HUD. Thus, Table 1 offers a good summary of lending to low-income and minority borrowers and their communities for the years 1997 to 1999. The discussion below will focus on the most recent year, 1999.

The affordable market shares reported in parentheses for the conventional conforming market in Table 1 were derived by excluding the estimated number of B&C loans from the HMDA data. Because B&C lenders operate mainly in the refinance sector, excluding these loans from the market totals has little impact on the home purchase percentages reported in Table 1.<sup>20</sup>

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<sup>18</sup> Table B.1 in Appendix B provides information on total (both home purchase and refinance) loans and thus provides a complete picture of overall mortgage activity.

<sup>19</sup> The "overall" market is defined as all loans (including both government and conventional) below the 1997 conforming loan limit of \$214,600, the 1998 conforming loan limit of \$227,150, and the 1999 conforming loan limit of \$240,000.

<sup>20</sup> The reductions in the market shares are more significant for total loans which include refinance as well as home purchase loans; for similar data for total loans, see Table B.1 in Appendix B. HUD's method for excluding B&C loans is explained in Section III.

The focus of different market sectors on affordable lending is summarized by the "distribution of business" percentages reported in Table 1. The interpretation of the "distribution of business" percentages can be illustrated using the FHA percentage for low-income borrowers: during 1999, 49.5 percent of all FHA-insured home purchase loans in metropolitan areas were originated for borrowers with an income less than 80 percent of the local area median income. These percentages are to be contrasted with "market share" percentages. Table 2 presents "market share" percentages that measure the portion of all home purchase loans for a specific affordable lending category (such as low-income borrowers) accounted for by a particular sector of the mortgage market (FHA or the GSEs). In this case, the FHA market share of 31 percent for low-income borrowers is interpreted as follows: of all home purchase loans originated in metropolitan areas during 1997, 31 percent were FHA-insured loans. Thus, this "market share" percentage measures the importance of FHA to the market's overall funding of loans for low-income borrowers. The main insights from Tables 1 and 2 can be discussed in terms of four topics.

**(1) FHA-Insured Loans.** FHA has traditionally been the mechanism used by borrowers who have difficulty obtaining mortgage financing in the private conventional market. FHA has long been recognized as the major source of funding for first-time, low-income and minority home buyers who find it difficult to raise cash for down payment.<sup>21</sup> Table 1 shows that FHA places much more emphasis on affordable lending than the other market sectors. Low-income borrowers accounted for 49.5 percent of FHA-insured loans during 1999, compared with 24.4 percent of the home loans purchased by the GSEs, 28.5 percent of home loans retained by depositories, and 30.1 percent of conventional conforming loans.<sup>22</sup> Likewise, 40.5 percent of FHA-insured loans were originated in underserved census tracts, while only 20.9 percent of the GSE-purchased loans and 25.8 percent of conventional conforming loans were originated in these tracts.<sup>23</sup> As shown in Table 2, while FHA insured only 21 percent of all home purchase mortgages originated in metropolitan areas during 1999, it insured 29 percent of all mortgages originated in underserved areas. FHA's share of the market is particularly high for African-American and Hispanic borrowers. As shown in Table 2, FHA insured 42 percent of all home loans originated for these borrowers during 1999.

**(2) Conventional Minority Lending.** The affordable lending shares for the conventional conforming sector are low for minority borrowers, particularly African-American and Hispanic

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<sup>21</sup> Almost two-thirds of the borrowers with an FHA-insured home purchase loan make a down payment less than five percent and over 80 percent are first-time home buyers. For discussions of the role of FHA in the mortgage market, see Bunce *et al* (1995) and U.S. General Accounting Office (1998). See Bunce, Reeder and Scheessele (1999) for data on the credit characteristics of FHA borrowers.

<sup>22</sup> The percentages reported in Table 1 for the year 1998 are similar; in that year, low-income borrowers accounted for 49.1 percent of FHA-insured loans, 23.9 percent of GSE purchases, and 27.8 percent of home purchase mortgages originated in the conventional conforming market.

<sup>23</sup> FHA, which focuses on first-time homebuyers and low down payment loans, experiences higher mortgage defaults than conventional lenders and the GSEs. Still, the FHA system is actuarially sound because it charges an insurance premium that covers the higher default costs. See Deloitte & Touche (2000) for the results of FHA's latest actuarial analysis.

borrowers. These borrowers accounted for only 12 percent of all conventional conforming loans originated during 1999, compared with almost 35 percent of FHA-insured loans and 18 percent of all loans originated in the total market. The African-American and Hispanic share of the GSEs' purchases is even lower than the corresponding share for the conventional conforming market.<sup>24</sup> In 1999, home purchase loans to African-American and Hispanic borrowers accounted for 9.0 percent of Freddie Mac's purchases, 9.4 percent of Fannie Mae's purchases, and 12.5 percent of loans originated in the conventional conforming market (or 11.9 percent if B&C loans are excluded from the market definition).<sup>25</sup> Not surprisingly, the minority lending performance of conventional lenders has been subject to much criticism. Recent studies contend that primary lenders in the conventional market are not doing their fair share of minority lending which forces minorities, particularly African-American and Hispanic borrowers, to rely on more costly FHA and subprime markets.<sup>26</sup>

A 1996 study by three economists -- Glenn Canner, Wayne Passmore and Brian Surette<sup>27</sup> - at the Federal Reserve Board provided perhaps the strongest evidence of the minimal role of the conventional market in funding loans for African-Americans and Hispanics. Canner, Passmore, and Surette examined the degree to which different mortgage market institutions -- depositories, private mortgage insurers, the GSEs and FHA -- are taking on the credit risk associated with funding affordable mortgages. The authors combined market share and down payment information with data on projected foreclosure losses to arrive at an estimate of the credit risk assumed by each institution for each borrower group. The study found that conventional lenders provided only 22 percent of the credit support for African-American and Hispanic borrowers, compared with 11 percent for the Veterans Administration and 67 percent for FHA. The dominant share for FHA reflects both FHA's focus on insuring mortgages for these borrowers (see Table 1) and the fact that most FHA-insured loans have less-than-five-percent down payments. The shares of credit support for African-American and Hispanic borrowers provided by different conventional sectors were as follows: depositories (7 percent), private mortgage insurers (6 percent), the GSEs (4 percent) and other conventional sectors (4 percent). The relatively small role (4 percent) of the GSEs is due to their low level of funding for African-

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<sup>24</sup> For a comprehensive analysis of the GSEs' purchases of minority loans, see Harold L. Bunce, *An Analysis of GSE Purchases of Mortgages for African-American Borrowers and their Neighborhoods*, December, 2000.

<sup>25</sup> As shown in Table 1, the results change somewhat when other minority borrowers are considered. During 1997 and 1998, Fannie Mae purchased mortgages for minority borrowers and their neighborhoods at similar or higher rates than these loans were originated by primary lenders in the conventional conforming market. For example, 17.7 percent of Fannie Mae's 1997 purchases were mortgages for minority borrowers, compared with 16.5 percent of conventional conforming loans. However, by 1999, Fannie Mae was below the market for these groups.

<sup>26</sup> See Green and Associates. *Fair Lending in Montgomery County: A Home Mortgage Lending Study*, a report prepared for the Montgomery County Human Relations Commission, (March 1998). Also see Bradford (2000a,b). In addition *Pennington-Cross, et al.* (2000) suggests that some minorities receiving FHA loans could qualify for conventional loans.

<sup>27</sup> Canner, *et al.* (1996).

American and Hispanic borrowers and to the fact that they purchase mainly high down payment loans.<sup>28</sup>

**(3) Fannie Mae and Freddie Mac.** During the 1997-99 period, the GSEs lagged the conventional conforming market in funding affordable loans for low-income families and their neighborhoods – in 1999, for example, low-income census tracts accounted for 8.4 percent of Freddie Mac's purchases, 8.1 percent of Fannie Mae's purchases, 11.6 percent of loans retained by depositories, and 11.3 percent of all home loans originated by conventional conforming lenders. During 1999, Freddie Mac matched or slightly outperformed Fannie Mae on most categories presented in Table 1. However, prior to 1999, Freddie Mac lagged significantly behind Fannie Mae. For example, during both 1997 and 1998, low-income census tracts accounted for 7.9 percent of Freddie Mac's purchases, compared with about 9.5 percent of Fannie Mae's purchases. Between 1998 and 1999, Freddie Mac's performance improved while Fannie Mae's declined -- during that period, Freddie Mac's low-income-tract percentage increased from 7.9 to 8.4 percent while Fannie Mae's dropped from 9.4 percent to 8.1 percent. Similar trends of Freddie Mac improving and Fannie Mae declining are evident for other categories in Table 1. A more complete analysis of these trends for the GSEs' purchases of mortgages qualifying for the housing goals is provided below in Section III.

**(4) Depository Portfolios.** Finally, within the conventional conforming market, depository institutions stand out as important providers of affordable lending for lower-income families and their neighborhoods (see Table 1).<sup>29</sup> Depository lenders have extensive knowledge of their communities and direct interactions with their borrowers, which may enable them to introduce flexibility into their underwriting standards without unduly increasing their credit risk (see Avery *et al.*, 1996). Another important factor influencing the types of loans held by depository lenders is the Community Reinvestment Act (CRA), which requires depository institutions to help meet the credit needs of their communities. CRA provides an incentive for lenders to initiate affordable lending programs with underwriting flexibility.<sup>30</sup> CRA loans are typically made to low- and moderate-income borrowers earning less than 80 percent of median income for their area, and in moderate-income neighborhoods. A recent report by the Department of Treasury indicates that CRA lending has been somewhat effective in stimulating lending to low- and moderate-income (LMI) borrowers and areas.<sup>31</sup>

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<sup>28</sup> As explained in Bunce and Scheessele (1996, 1998) and HUD (2000d), a noticeable pattern among lower-income loans purchased by the GSEs is the predominance of loans with high down payments. For example, three-fourths of the GSEs' very low-income loans on owner-occupied one-unit properties purchased during 1999 had a down payment of at least 20 percent.

<sup>29</sup> However, as shown in Table 1, depository institutions resemble other conventional lenders in their relatively low level of originating loans for African-American, Hispanic and minority borrowers.

<sup>30</sup> For an analysis of the impact of CRA agreements signed by lending institutions, see Alex Schwartz, "From Confrontation to Collaboration? Banks, Community Groups, and the Implementation of Community Reinvestment Agreements", *Housing Policy Debate*, 9(3), (1998), pp. 631-662.

<sup>31</sup> The number of loans made by CRA-covered depository institutions and affiliates to LMI borrowers and areas rose from 1.2 million in 1993 to 1.7 million in 1998 – an gain of 45 percent. The share of total mortgage originations by depository institutions and their affiliates reported under the HMDA going to LMI borrowers and



### III. GSEs Compared with the Primary Conventional Conforming Mortgage Market

This section presents several analyses of the extent to which the GSEs' loan purchases mirror or depart from the patterns found in the primary mortgage market. As in the previous section, the GSEs' affordable lending performance is also compared with the performance of major portfolio lenders such as commercial banks and thrift institutions. Dimensions of lending considered include the borrower income and underserved area dimensions covered by the three housing goals -- the "goals-qualifying" categories examined here include very low-income, special affordable, and less-than-median income borrowers and underserved areas. Subsection A defines the primary mortgage market and discusses some technical issues related to the use of GSE and HMDA data; subsection B discusses the results.

#### A. Definition of Primary Market and Some Technical Issues

The market analysis in this section is based mainly on HMDA data for home purchase loans originated in the conventional conforming market of metropolitan areas during the years 1992 to 1999. The conventional conforming market is used as the benchmark against which to evaluate the GSEs because that is the market definition Congress requires that HUD consider when setting the affordable housing goals. However, as discussed in Section II, some have questioned whether conventional conforming lenders are doing an adequate job meeting the credit needs of minority borrowers which suggests that this market may be a low benchmark.<sup>32</sup>

**Manufactured Housing Loans.** Questions have arisen about whether loans on manufactured housing should be excluded when comparing the primary market with the GSEs. While the GSEs have not played a significant role in the manufactured housing mortgage market in the past, they have been looking for ways to increase their purchases of these loans. But more importantly, the manufactured housing sector is one of the most important providers of affordable housing, which makes it appropriate to include this sector in the market definition. As discussed in HUD's final GSE rule (HUD, 2000d), HUD believes that excluding important low-income sectors such as manufactured housing from the market definition would render the resulting market benchmark useless for evaluating the GSEs' performance. Still, for comparison purposes, data are presented for the primary market defined both to include and exclude mortgages originated by manufactured housing lenders.

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areas rose from 25 percent in 1993 to 28 percent in 1998. See Robert E. Litan, Nicolas P. Retsinas, Eric S. Belsky, and Susan White Haag, *The Community Reinvestment Act After Financial Modernization: A Baseline Report*, U.S. Department of Treasury, April 2000.

<sup>32</sup> The market definition in this section is narrower than the data presented earlier in Section II and Tables 1 and 2, which covered all loans (both government and conventional) less than or equal to the conforming loan limit. As in that section, only the GSEs' purchases of conventional conforming loans are considered; their purchases of FHA-insured, VA-guaranteed, and Rural Housing Service loans are excluded from this analysis.

**Subprime Loans.** Questions have also arisen about whether subprime loans should be excluded when comparing the primary market with the GSEs. In its final GSE rule, HUD argues that the low-income and minority borrowers in the A-minus portion of the subprime market could benefit from the standardization and lower interest rates that typically accompany an active secondary market effort by the GSEs. A-minus loans are not nearly as risky as B&C loans and the GSEs have already started purchasing these loans. Thus, HUD concludes that A-minus loans should be included in the market benchmark. With respect to the remaining B&C portion of the subprime market, HUD's final GSE rule estimates the effects of excluding the B&C loans from the market definition.

Unfortunately, HMDA does not identify subprime loans, much less separate them into their A-minus and B&C components.<sup>33</sup> Thus, it is not possible to exclude B&C loans from the HMDA market data. However, Randall M. Scheessele at HUD has identified HMDA reporters that primarily originate subprime loans.<sup>34</sup> The text below will report the effects of excluding data for these "subprime lenders" from the primary market. The effects are minor mostly because the analysis below focuses on home purchase loans, which typically account for only twenty percent of the mortgages originated by the subprime lenders.

**GSE-HMDA Data Issues.** In this study, the GSE figures are based on mortgage purchase data that they report annually to HUD; the market figures are taken from HMDA data. The GSE data that are reported to HUD include their purchases of mortgages originated in prior years as well as their purchases of mortgages originated during the current year. The market data reported by HMDA include only mortgages originated in the current year. This means that the GSE-versus-market comparisons are defined somewhat inconsistently for any particular calendar year. Each year, the GSEs have newly-originated loans available for purchase, but they can also purchase loans from a large stock of seasoned loans currently being held in the portfolios of depository lenders. One method for making the data more consistent is to aggregate the data over several years, instead of focusing on annual data. This provides a clearer picture of the types of loans that have been originated and are available for purchase by the GSEs. This approach is taken in Table 3, which is discussed below.

The approach of including the GSEs' purchases of both "current-year" and "prior-year" mortgages was chosen in order to give the GSEs full credit for their mortgage purchase activity in any particular year. Appendix A to this paper shows the effects on the analysis of restricting the

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<sup>33</sup> And there is some evidence that many subprime loans are not even reported to HMDA, although there is nothing conclusive on this issue. See *Fair Lending/CRA Compass*, (June 1999), p. 3.

<sup>34</sup> Scheessele identified approximately 300 subprime lenders in 1998 and 1999. The list of subprime lenders as well as Scheessele's list of manufactured housing lenders are available at <http://www.huduser.org/publications/hsgfin.html>. HUD (2000d) estimates the B&C portion of the subprime market as one-half of the loans originated by the subprime lenders included on Scheessele's list. Because the effects of excluding the estimated B&C home purchase loans from the market totals for home loans are so small, this section simply deducts home loans originated by all subprime lenders on Scheessele's list. For an illustration of HUD's B&C methodology, see Tables B.1 and B.2 (in Appendix B) which include refinance as well as home purchase loans.

GSEs' data to their purchases of only "current year" mortgages. That appendix also addresses other issues including the GSEs' criticisms of HUD's past use of HMDA data to measure their performance and the GSEs' assertion that HMDA data overstate the low-income and underserved areas portion of the mortgage market.

## **B. Affordable Lending by the GSEs and the Market**

**Overall Performance, 1993-99.** Table 3 summarizes goals-qualifying lending by the GSEs, depositories and the conforming market for the seven-year period between 1993 and 1999 and for the more recent 1996-99 period, which covers the period since the most recent housing goals have been in effect. As noted above, the data are aggregated over time to provide a clear picture of how the GSEs' purchases of both current-year and prior-year loans compare with the types of mortgages that have been originated during the past few years. All of the data are for home purchase mortgages in metropolitan areas. Several points stand out concerning the affordable lending performance of Freddie Mac and Fannie Mae through 1999.

Freddie Mac substantially lagged both Fannie Mae and the primary market in funding affordable home loans between 1993 and 1999. During that period, 8.2 percent of Freddie Mac's mortgage purchases were for very low-income borrowers, compared with 9.5 percent of Fannie Mae's purchases, 14.5 percent of loans originated and retained by depositories, and 12.9 percent of loans originated in the conforming market (or 11.1 percent if manufactured home loans are excluded from the conforming market definition).<sup>35</sup>

A similar pattern characterized the more recent 1996-99 period. Between 1996 and 1999, 36.3 percent of Freddie Mac's purchases were for low- and moderate-income borrowers, compared with 38.7 percent of Fannie Mae's purchases, 43.0 percent of loans originated and retained by depositories and 43.4 percent of loans originated in the primary market. Over the same period, 20.2 percent of Freddie Mac's purchases financed properties in underserved neighborhoods, compared with 22.3 percent of Fannie Mae's purchases, 25.7 percent of loans originated by depositories and 25.2 percent of loans originated in the conventional conforming market.

Thus, Fannie Mae's affordable lending performance has been much better than Freddie Mac's over the 1993 to 1999 period as well as during the more recent 1996 to 1999 period. During these periods, Fannie Mae as well as Freddie Mac have lagged depositories and the overall market in funding affordable loans. However, as the above comparisons indicate, Fannie Mae's performance has been much closer to the market than Freddie Mac's.

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<sup>35</sup> The borrower income distributions in Tables 3 and 4 for the "market without manufactured housing" exclude loans less than \$15,000 as well as all loans originated by lenders that primarily originate manufactured housing loans. See Table 5 for market definitions that show the separate effects of excluding small loans and manufactured housing loans. Also, Table 3 shows that excluding subprime loans has only a minor effect on the goals-qualifying percentages for the market for home purchase loans. As discussed in Appendix B, excluding subprime loans (as well as B&C loans) has a larger effect when total loans are considered.

The remainder of this section focuses on the annual data reported in Tables 4 and 5. As explained below, there was a change in the relative positions of Fannie Mae and Freddie Mac during 1999 – between 1993 and 1998, Freddie Mac’s performance fell below Fannie Mae’s but a sharp improvement in Freddie Mac’s performance during 1999 pushed it pass Fannie Mae. Even though Freddie Mac surpassed Fannie Mae during 1999, it continued to fall significantly behind depositories and the overall market in funding affordable loans.

**Freddie Mac Performance – Annual Data.** As shown by the annual data reported in Table 4, Freddie Mac improved its purchases of goals-qualifying loans during the 1990s. For example, its purchases of loans for very low-income borrowers increased from 5.3 percent of its business in 1992 to 7.6 percent in 1997, before jumping to 9.9 percent in 1998 and 11.0 percent in 1999. Freddie Mac’s purchases in underserved areas increased at a more modest rate, rising from 18.6 percent in 1992 to 19.9 percent in 1997 and then to 21.2 percent in 1999.<sup>36</sup>

Despite its improved performance between 1997 and 1999, Freddie Mac continued to lag the market in funding goals-qualifying loans. In 1999, special affordable loans accounted for 12.5 percent of Freddie Mac’s purchases and 17.3 percent of loans originated in the conventional conforming market, which produces a “Freddie-Mac-to-market” ratio of 0.72 (12.5 divided by 17.3).<sup>37</sup> Table 4 shows the trend in the “Freddie-Mac-to-market” ratio from 1992 to 1999 for each of the goals-qualifying categories. For the special affordable and low-mod categories, Freddie Mac’s performance relative to the market remained flat (at approximately 0.60 and 0.80, respectively) through 1997; but by 1999, the ratio had risen to 0.72 for the Special Affordable category and 0.88 for the low-mod category. Given these gains, it is somewhat surprising that Freddie Mac did not make any progress closing its market gap in the underserved areas category; the “Freddie-Mac-to-market” ratio for underserved areas was about the same in 1999 (0.82) as it was in 1992 (0.84).<sup>38</sup>

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<sup>36</sup> HMDA is the source of the GSE data reported in Table 4 for the year 1992; the loan -level data that the GSEs report to HUD are available only since 1993. The 1992 HMDA data on loans sold to the GSEs are reported in order to include a measure of GSE activity prior to the housing goals taking effect in 1993. As discussed in Scheessele (1998), HMDA data on loans sold to the GSEs typically account for only about four-fifths of their purchases. However, the undercoverage of GSE purchases was greater during 1992 as several mortgage bankers were not required to report under HMDA until 1993. Thus, the 1992 data (for the market as well as the GSEs) should be interpreted with some caution. Scheessele reported the following HMDA coverage rates for GSE purchases of home loans between 1993 and 1996: 75.3 percent for 1993, 80.4 percent for 1994, 85.7 percent for 1996, and 81.6 percent for 1996. He found that HMDA covered higher percentages of FHA-insured loans during this period: 87.8 percent for 1993, 88.0 percent for 1994, 89.5 percent for 1995, and 93.3 percent for 1996.

<sup>37</sup> Table 5 reports annual market percentages that exclude the effects of manufactured housing and subprime loans. The market percentage for 1999 drops slightly to 16.7 percent when subprime loans are excluded from the market definition, thus not significantly changing Freddie Mac’s performance relative to the market. Excluding manufactured housing and small loans, on the other hand, reduces the special affordable market figure to 15.0 percent, which has the effect of raising the “Freddie-Mac-to-market” ratio to 0.83.

<sup>38</sup> If manufactured housing and small loans are excluded from the market definition, the ratio was 0.87 in 1992 and 0.88 in 1999 (see Table 5).

**Fannie Mae Performance – Annual Data.** With respect to purchasing affordable loans, Fannie Mae followed a different path than Freddie Mac during the 1990s. Fannie Mae improved its performance between 1992 and 1998 and made much more progress than Freddie Mac in closing the gap between its performance and the market's performance on the goal-qualifying categories examined here. In fact, by 1998, Fannie Mae's performance was close to that of the primary market for some important components of affordable lending. For example, in 1992, special affordable loans accounted for 6.3 percent of Fannie Mae's purchases and 10.4 percent of all loans originated in the conforming market, giving a "Fannie Mae-to-market" ratio of 0.61. By 1998, this ratio had risen to 0.85, as special affordable loans had increased to 13.2 percent of Fannie Mae's purchases and to 15.6 percent of market originations.

A similar trend in market ratios can be observed for Fannie Mae on the underserved areas category, as Fannie Mae improved its performance relative to the market. In 1992, underserved areas accounted for 18.3 percent of Fannie Mae's purchases and 22.2 percent of market originations, for a "Fannie Mae-to-market" ratio of 0.82. By 1998, underserved areas accounted for 22.9 percent of Fannie Mae's purchases and 24.6 percent of market originations, for a higher "Fannie Mae-to-market" ratio of 0.93. Freddie Mac, on the other hand, fell further behind the market during this period. In 1992, Freddie Mac had a slightly higher underserved area percentage (18.6 percent) than Fannie Mae (18.3 percent). However, Freddie Mac's underserved area percentage had only increased to 20.0 percent by 1998 (versus 22.9 percent for Fannie Mae). Thus, the "Freddie Mac-to-market" ratio fell from 0.84 in 1992 to 0.81 in 1998.

The year 1999 saw a shift in the above patterns, with Fannie Mae declining in performance while the share of goals-qualifying loans in the market increased. Between 1998 and 1999, the special affordable share of Fannie Mae's business declined from 13.2 percent to 12.3 percent while this type of lending in the market increased from 15.6 percent to 17.3 percent. Thus, the "Fannie-Mae-to-market" ratio for special affordable loans declined sharply from 0.85 in 1998 to 0.71 in 1999.<sup>39</sup> The share of Fannie Mae's purchases in underserved areas also declined, from 22.9 percent in 1998 to 20.6 percent in 1999, which lowered the "Fannie-Mae-to-market" ratio from 0.93 to 0.80.

While the reasons for Fannie Mae's decline in performance require further study, one factor discussed in Appendix A concerns their purchases of seasoned loans. As shown in Table A.1 of that appendix, Fannie Mae followed a strategy of purchasing targeted seasoned loans between 1996 and 1998, which improved its overall affordable lending performance. For example, consider Fannie Mae's underserved areas performance during 1997 which improved mainly due to Fannie Mae's increased purchases during 1997 of seasoned mortgages on properties located in underserved neighborhoods. Overall, Fannie Mae's purchases of home loans in underserved areas increased from 22.3 percent in 1996 to 23.5 percent in 1997. The underserved area percentage for Fannie Mae's purchases of newly-originated mortgages was actually lower in 1997 (20.8 percent) than in 1996 (21.9 percent). This decline was offset by the fact that a particularly high percentage (30.1 percent) of Fannie Mae's 1997 purchases of seasoned

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<sup>39</sup> If manufactured housing and small loans are excluded from the market definition, the ratio would be 0.82 in 1999 (see Table 5).

mortgages was for properties in underserved areas. Thus, Fannie Mae improved its overall performance in 1997 by supplementing its purchases of newly-originated mortgages with purchases of seasoned mortgages targeted to underserved neighborhoods. As shown in Table A.1 of Appendix A, Fannie Mae continued this strategy in 1998 but not in 1999. During 1999, the underserved area characteristics of Fannie Mae's seasoned loans were similar to its purchases of current-year loans.<sup>40</sup>

**Changes in the “Fannie-Mae-to-Freddie-Mac” Performance Ratio.** As discussed above, Freddie Mac's purchases of home loans for targeted groups improved during 1999 to the point that Freddie Mac slightly out-performed Fannie Mae. While Fannie Mae's purchase share for special affordable loans was declining from 13.2 percent to 12.3 percent between 1998 and 1999, Freddie Mac's was increasing from 11.3 percent to 12.5 percent. Table 4 reports the ratio of Fannie Mae's performance to Freddie Mac's performance for each goals category for the years 1992 to 1999. As shown there, the “Fannie-Mae-to-Freddie-Mac” ratio for the special affordable category increased from approximately one in 1992 (indicating equal performance) to over 1.3 during the 1994-97 period, before dropping to 1.17 in 1998 and slightly below one (0.98) in 1999. The “Fannie-Mae-to-Freddie-Mac” ratio for underserved areas followed a similar pattern but at a lower overall level – rising from about one in 1992 to approximately 1.2 during the 1994-97 period, before dropping to slightly below one (0.97) in 1999.

To conclude, the 1990s ended on a more encouraging note for Freddie Mac than for Fannie Mae. Fannie Mae ended the 1990s with a decline in affordable lending performance at the same time that Freddie Mac was improving and the share of goals-qualifying loans was increasing in the market. An encouraging sign for Freddie Mac was that its shares of special affordable and low-mod loans showed rather large increases over the two-year period, 1998 to 1999. The reasons for this increase require further study, but certainly, an interesting question going forward is whether Freddie Mac can continue this 1997-99 pattern and thus further close the gap between its performance and the overall market.

**B&C Home Purchase Loans.** As explained earlier, HMDA does not identify subprime loans, much less separate them into their A-minus and B&C components. As discussed earlier, Randall Scheessele at HUD has identified 300 HMDA reporters that primarily originate subprime loans and probably account for 60-70 percent of the subprime market. As shown in Table 5, excluding the home purchase loans originated by these lenders from the primary market data has only minor effects on the goal-qualifying shares of the market. The average market percentages for 1999 are reduced as follows: low- and moderate-income (45.2 to 44.4 percent); special affordable (17.3 to 16.7 percent); and underserved areas (25.8 to 24.6 percent). The effects are minor mostly because this analysis focuses on home purchase loans, which typically account for

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<sup>40</sup> Freddie Mac, on the other hand, has not pursued such a strategy, or at least not to the same degree as Fannie Mae. During the 1997-99 period, Freddie Mac's purchases of prior-year mortgages and newly-originated mortgages had similar percentages of special affordable and low- and moderate-income borrowers. There was a small differential between Freddie Mac's prior-year and newly-originated mortgages for the underserved areas category but it is much smaller than the differential for Fannie Mae. See Table A.1 in Appendix A.

only 20-25 percent of the mortgages originated by subprime lenders -- the subprime market is mainly a refinance market.<sup>41</sup>

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<sup>41</sup> It should be noted that subprime lenders have been focusing more on home purchase loans recently. The home purchase share of subprime loans increased from 20 percent in 1998 to 25 percent in 1999.

## Appendix A

### Technical Issues: Using HMDA Data to Measure GSE Performance and Market Characteristics

#### A. Two HMDA Issues

This appendix discusses two issues concerning the use of HMDA data for measuring the GSEs' performance relative to the characteristics of mortgages originated in the primary market. The first issue concerns the reliability of HMDA data for measuring the borrower income and census tract characteristics of loans sold to the GSEs.<sup>42</sup> Fannie Mae, in particular, contends that HMDA data understates the percentages of its business that qualifies for the three housing goals. For this reason, Fannie Mae questions HUD's reliance on HMDA data for measuring its performance (Fannie Mae, 2000). As discussed below, HMDA data on loans sold to the GSEs do not include prior-year (seasoned) loans that are sold to the GSEs; since about one-fourth of GSE purchases involve seasoned loans, HMDA data will not provide an accurate measure of the goals-qualifying characteristics of the GSEs' total purchases when the characteristics of prior-year loans differ from those of current-year loans.

A second issue concerns the reliability of HMDA for measuring the percentage of goals-qualifying loans in the primary market. Both GSEs refer to findings from a study by Jim Berkovec and Peter Zorn concerning potential bias in HMDA data.<sup>43</sup> Based on a comparison of the borrower and census tract characteristics between Freddie Mac-purchased loans (from Freddie Mac's own data) and loans identified in 1993 HMDA data as sold to Freddie Mac, Berkovec and Zorn conclude that HMDA data overstates the percentage of conventional conforming loans originated for lower-income borrowers and for properties located in underserved census tracts. If HMDA data overstate the percentage of goals-qualifying loans, then HUD's market benchmarks (which are based on HMDA data) will also be overstated. The analysis below does not support the Berkovec and Zorn findings -- it appears that HMDA data do not overstate the share of goals-qualifying loans in the market, although more research on this issue is needed.

The discussion in this appendix of the GSEs' purchases of prior-year and current-year loans highlights Fannie Mae's strategy between 1996 and 1998 of purchasing goals-qualifying seasoned loans. The implications of this strategy for Fannie Mae's performance relative to Freddie Mac, which has not pursued such a strategy, is discussed in Section D of this appendix.

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<sup>42</sup> It is important to emphasize that this appendix's analysis of the reliability of HMDA data is being conducted at the nationwide level for metropolitan areas. HMDA's reliability at the individual metropolitan area level is beyond the scope of this study.

<sup>43</sup> See Jim Berkovec and Peter Zorn, "How Complete is HMDA? HMDA Coverage of Freddie Mac Purchases," *The Journal of Real Estate Research*, Vol. II, No. 1, Nov. 1, 1996. Also see Freddie Mac (2000) and Fannie Mae (2000).



## B. GSEs' Purchases of "Prior-Year" and "Current-Year" Mortgages

**Overview.** As explained in Section III, there are two sources of loan-level information on the characteristics of mortgages purchased by the GSEs -- the GSEs themselves and HMDA data. The GSEs provide detailed data on their mortgage purchases to HUD on an annual basis. As part of their annual HMDA reporting responsibilities, lenders are required to indicate whether their new mortgage originations or the loans that they purchase (from affiliates and other institutions) are sold to Fannie Mae, Freddie Mac or some other entity. There have been numerous studies by HUD staff and other researchers that use HMDA data to compare the borrower and neighborhood characteristics of loans sold to the GSEs with the characteristics of all loans originated in the market (see Section I). One question is whether HMDA data, which is widely available to the public, provides an accurate measure of GSE performance, as compared with the GSEs' own data.<sup>44</sup> Fannie Mae has argued that HMDA data understate its past performance, where performance is defined as the percentage of Fannie Mae's mortgage purchases accounted for by one of the goal-qualifying categories such as underserved areas. As explained below, over the past five years, HMDA has provided rather reliable national-level information on the goals-qualifying percentages for the GSEs' purchases of "current-year" (i.e., newly-originated) loans but not for their purchases of "prior-year" loans.<sup>45</sup> A recent exception to this pattern is the year 1998, when HMDA-reported goals-qualifying percentages were smaller than the GSE-reported goals-qualifying percentages for their purchases of "current-year" loans (which suggests HMDA is biased downward, not upward as predicted by Berkovec and Zorn).

**Discussion.** In any given calendar year, the GSEs can purchase mortgages originated in that calendar year or mortgages originated in a prior calendar year. In 1997, for example, purchases of prior-year mortgages accounted for 30 percent of the single-family units financed by Fannie Mae's mortgage purchases and 20 percent of the single-family units financed by Freddie Mac's mortgage purchases.<sup>46</sup> HMDA data provide information mainly on newly-originated mortgages that are sold to the GSEs—that is, HMDA data on loans sold to the GSEs will not

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<sup>44</sup> For another discussion of this issue, see Randall M. Scheessele, *HMDA Coverage of the Mortgage Market*, Housing Finance Working Paper HF-007, Office of Policy Development and Research, Department of Housing and Urban Development, July 1998. Scheessele reports that HMDA data covered 81.6 percent of the loans acquired by Fannie Mae and Freddie Mac in 1996. The main reason for the under-reporting of GSE acquisitions is a few large lenders failed to report the sale of a significant portion of their loan originations to the GSEs. Also see the analysis of HMDA coverage by Jim Berkovec and Peter Zorn. "Measuring the Market: Easier Said than Done," *Secondary Mortgage Markets*. McLean VA: Freddie Mac (Winter 1996), pp. 18-21; as well as the Berkovec and Zorn study cited in the above footnote.

<sup>45</sup> Between 1993 and 1996, the GSEs' purchases of prior-year loans were not as targeted as they were after 1996; thus, during this period, HMDA provided reasonable estimates of the goals-qualifying percentages of the GSEs' purchases of all (both current-year and prior-year) loans (with some exceptions noted below).

<sup>46</sup> Since 1993, the GSEs have increased their purchases of seasoned loans. See Paul B. Manchester, *Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac: 1996-1997 Update*, Housing Finance Working Paper HF-006, Office of Policy Development and Research, Department of Housing and Urban Development, (August 1998), p.17.

include many of their purchases of prior-year loans.<sup>47</sup> The implications of this for measuring GSE performance can be seen in Table A.1, which provides annual data on the borrower and census tract characteristics of GSE purchases, as measured by HMDA data and the GSEs' own data. Table A.1 is similar to Table 4 in the text except that it divides each of the GSEs' goals-qualifying percentages for a particular acquisition year into two components, the percentage for "prior-year" loans and the percentage for "current-year" loans.

According to Fannie Mae's own data, 9.9 percent of its purchases during 1997 were loans for very low-income borrowers (see Table A.1). According to HMDA data (also reported in Table A.1), only 8.8 percent of Fannie Mae's purchases were loans for very low-income borrowers. In this case, the HMDA data underestimate the share of Fannie Mae's mortgage purchases for very low-income (VLI) borrowers. Similarly, Fannie Mae reports a VLI percentage of 11.4 percent for its 1998 purchases while HMDA reports only 9.2 percent. However, in 1999, Fannie Mae reports a VLI percentage of 10.8 percent for its 1999 purchases while HMDA reports practically the same percentage, 10.9 percent. What explains these different patterns in the Fannie Mae and HMDA data?

The reason that HMDA data underestimate the very low-income percentage of Fannie Mae's 1997 purchases can be seen by disaggregating Fannie Mae's purchases during 1997 into their prior-year and current-year components. Table A.1 shows that the overall figure of 9.9 percent for VLI borrowers is a weighted average of 13.4 percent for Fannie Mae's purchases during 1997 of prior-year mortgages and 8.7 percent for its purchases of current-year purchases. The HMDA-reported VLI figure of 8.8 percent for Fannie Mae's 1997 purchases is based mainly on newly-mortgaged (current-year) loans that lenders report as being sold to Fannie Mae. Therefore, the HMDA figure is similar in concept to the current-year percentage from the GSEs' own data. As Table A.1 shows, the HMDA figures and the GSE current-year figures are practically the same in this case (about nine percent). Thus, the relatively large share of VLI mortgages in Fannie Mae's 1997 purchases of prior-year mortgages explains why Fannie Mae's own data show an overall (both prior-year and current-year) percentage of VLI loans that is higher than that reported in HMDA data. As shown in Table A.1, the same can be said for 1998.

As noted above, the Fannie Mae and HMDA data provide about the same VLI percentage (10.8 percent and 10.9 percent, respectively) for 1999. This results because the VLI percentage for Fannie Mae's prior-year loans (10.4 percent) is similar to the VLI percentage for its current-year loans (10.9 percent). Thus, the VLI percentage of Fannie Mae's total loan purchases (10.8 percent) will be similar to the VLI percentage of its current-year loans, which is the same as the HMDA-based VLI percentage of Fannie Mae's purchases. In other words, Fannie Mae's overall VLI percentage is similar to (differs from) the VLI percentage reported by HMDA for loans sold to Fannie Mae when the VLI percentage of Fannie Mae's prior-year loans is similar to (differs from) the VLI percentage of Fannie Mae's current-year loans. This suggests that HMDA data are doing a good job measuring the VLI percentage of Fannie Mae's purchases of current-year loans, at least at the national level during 1999. A more detailed analysis follows.

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<sup>47</sup> For a discussion of the impact of the GSEs' seasoned mortgage purchases on HMDA data coverage, see Scheessele (1998), *op. cit.*

### C. Three Findings About the Reliability of HMDA Data

A review of the 1993-99 data for the goals-qualifying categories in Table A.1 yields the following insights about the reliability of HMDA data at the national level for metropolitan areas. **First**, comparing HMDA data on GSE purchases with GSE-reported current-year data suggests that HMDA data provided reasonable estimates of the goals-qualifying percentages for the GSEs' current-year purchases through 1997 and again in 1999. For example, in 1997 (1999) Fannie Mae reported that 20.8 (20.2) percent of the loans they purchased that were originated during 1997 (1999) were for properties in underserved areas. HMDA reports that 21.0 (20.3) percent of the loans sold to Fannie Mae during 1997 (1999) were for properties in underserved areas. The corresponding numbers for Freddie Mac in 1997 (1999) are 19.3 (20.6) percent reported by them and 18.6 (19.3) percent reported by HMDA. During 1999, both Fannie Mae and HMDA reported that approximately 40 percent of the current-year loans purchased by Fannie Mae were for low- and moderate-income borrowers. In that year, Freddie Mac reported that 40.3 percent of the current-year loans it purchased were for low-mod borrowers, a figure only slightly lower than the 41.0 percent that HMDA reported as low-mod loans sold to Freddie Mac. The fact that the GSE and HMDA figures are similar suggests that the Berkovec and Zorn conclusions about HMDA being biased are wrong.<sup>48</sup>

**Second**, the HMDA-reported percentages through 1997 are actually rather close to Freddie-Mac-reported overall percentages because Freddie Mac's prior-year purchases often resembled their current-year originations. Fannie Mae, on the other hand, was more apt to have a higher percentage of targeted loans in its prior-year purchases, which means that HMDA data were more likely to underestimate Fannie Mae's overall performance. However, this underestimation of the share of Fannie Mae's goal-qualifying loans in HMDA data first arose in 1997, when Fannie Mae's purchases of prior-year loans were particularly targeted to affordable lending groups. For the years 1993 to 1996, Fannie Mae's prior-year loan purchases more closely resembled their current-year originations, which explains why HMDA data provide a reasonable estimate of the goals-qualifying percentages of Fannie Mae's overall purchases during this period.<sup>49</sup>

**Third**, the 1998 data show that even the GSEs' current-year data differ from the HMDA-reported data on GSE purchases. For example, special affordable loans accounted for 12.1 percent of Fannie Mae's current-year purchases in 1998 compared with only 10.7 percent of Fannie Mae's special affordable purchases as reported by HMDA. Similarly, underserved areas

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<sup>48</sup> The data in Table A.1 that support Berkovec and Zorn are the 1994-96 special affordable data for Freddie Mac that show HMDA over-reporting Freddie Mac's current-year percentages by more than a half percentage point. Otherwise, the data in Table A.1 do not present a picture of HMDA's having an upward bias in reporting targeted loans.

<sup>49</sup> Notice that while Fannie Mae's 1998 purchases resembled their 1997 purchases with prior-year loans having higher goals-qualifying percentages than current-year loans, the pattern for 1999 was similar to that for 1993 to 1996 when there were smaller differentials between the goals-qualifying percentages of prior-year and current-year mortgages.

accounted for 21.0 percent of Fannie Mae's current-year purchases compared with only 19.6 percent of Fannie Mae's underserved area purchases as reported by HMDA. The same patterns exist for Freddie Mac's 1998 data for the special affordable and underserved area categories. Thus, 1998 HMDA data do not provide a reliable estimate at the national level of the goals-qualifying percentages for the GSEs' purchases of current-year loans. However, the bias is in the opposite direction to that predicted by Berkovec and Zorn. The 1998 data suggest that HMDA's goals-qualifying percentages are understated, not overstated.

To conclude, the data reported in Table A.1 do not support the Berkovec and Zorn findings. With respect to the goals-qualifying percentages of GSE purchases, comparing columns 2 and 4 for Fannie Mae and columns 6 and 8 for Freddie Mac shows that the HMDA-reported goals-qualifying percentages for loans sold to the GSEs are not always larger than the corresponding current-year percentages reported by the GSEs. In fact, the HMDA-reported percentages are more likely to be smaller than the GSE-reported percentages for the Special Affordable and Underserved Areas Goals, yielding conclusions different from those drawn by Berkovec and Zorn with regard to bias in the HMDA data. Thus, this more recent and complete (Fannie Mae data as well as Freddie Mac data) analysis does not support the Berkovec and Zorn findings that HMDA overstates the goals-qualifying percentages of the market.

#### **D. Fannie Mae's Strategy of Purchasing Seasoned Loans**

Table A.1 shows that an important source of the past differential in affordable lending between Fannie Mae and Freddie Mac concerns the purchase of prior-year loans. As shown there, the prior-year mortgages that Fannie Mae was purchasing through 1998 were much more likely to be loans for lower-income families and underserved areas than the newly-originated mortgages that they were purchasing. For example, 30.1 percent of Fannie Mae's 1997 purchases of prior-year mortgages were loans financing properties in underserved areas, compared with 20.8 percent of its purchases of newly-originated mortgages. These purchases of prior-year mortgages were one reason Fannie Mae improved its performance relative to the primary market, which includes only newly-originated mortgages, in 1997. Sixteen percent of its prior-year mortgages qualified for the Special Affordable Goal, compared with only 10.2 percent of its purchases of newly-originated loans. The same patterns are exhibited by the 1998 data. For example, 17.9 percent of Fannie Mae's prior-year purchases during 1998 qualified for the Special Affordable Goal, compared with only 12.1 percent of its purchases of newly-originated loans. Through 1998, Fannie Mae seem to be purchasing affordable loans that were originated by portfolio lenders in previous years. In 1999, on the other hand, there was surprisingly little difference between the goals-qualifying percentages for Fannie Mae's prior-year and its current-year purchases -- and as explained next, that was the year Freddie Mac caught up with Fannie Mae in purchasing goals-qualifying home mortgages.

Freddie Mac has not pursued a strategy of purchasing seasoned targeted loans, or at least not to the same degree as Fannie Mae. During 1997 and 1998, Freddie Mac's purchases of prior-year mortgages and its purchases of newly-originated mortgages had similar percentages of special affordable and low- and moderate-income borrowers. As Table A.1 shows, there is a small differential between Freddie Mac's prior-year and newly-originated mortgages for the

underserved areas category but it is much smaller than the differential for Fannie Mae. Thus, during 1997 and 1998, Freddie Mac's purchases of prior-year mortgages were less likely to qualify for the housing goals, and this was one reason Freddie Mac's overall affordable lending performance was below Fannie Mae's during those years. Again in 1999, there was little difference between the goals-qualifying percentages for Freddie Mac's prior-year and its current-year purchases. As noted above, Fannie Mae did not pursue its normal strategy of purchasing seasoned, targeted loans during 1999; this was one factor allowing Freddie Mac to catch up with Fannie Mae in funding affordable loans.

## **Appendix B**

### **GSE Purchases of Total (Home Purchase and Refinance) Loans**

Section III examined the GSEs' acquisitions of home purchase loans, which is appropriate given the importance of the GSEs for expanding homeownership opportunities. To provide a complete picture of the GSEs' mortgage purchases in metropolitan areas, Tables B.1 and B.2 of this appendix report the GSEs' purchases of all single-family-owner mortgages, including both home purchase loans and refinance loans. Shifting the analysis to consider total mortgages does not change the basic finding that both GSEs lag the primary market in serving low-income borrowers and underserved neighborhoods. For example, in 1999 underserved areas accounted for 21.8 percent of Fannie Mae's purchases and 23.5 percent of Freddie Mac's purchases, compared with 28.2 percent for the conventional conforming market. Similarly, special affordable loans accounted for 12.3 percent of Fannie Mae's and 13.3 percent, compared with 18.3 percent for the primary market.<sup>50</sup>

There are two changes when one shifts the analysis from only home purchase loans to total mortgages -- one concerning the relative performance of Fannie Mae and Freddie Mac and one concerning the impact of subprime mortgages on the goals-qualifying percentages. These are discussed next.

#### **A. Fannie Mae versus Freddie Mac Performance -- 1997 to 1998**

The borrower-income and underserved area comparisons between Fannie Mae and Freddie Mac change when the analysis switches from their acquisitions of only home purchase loans to their acquisitions of total (both home purchase and refinance) loans. In the case of home purchase loans, Freddie Mac's performance lagged Fannie Mae's performance in 1998 but resembled Fannie Mae's performance in 1999 (see Section III and Tables 4 and 5). But in the case of total loans, Freddie Mac's performance resembled Fannie Mae's performance in 1998 and surpassed Fannie Mae's performance in 1999 (see Table B.2). These important shifts in relative performance are best described by first analyzing the 1997 to 1998 changes that led to Freddie Mac catching up with Fannie Mae in overall affordable lending and then examining the 1998 to 1999 changes that led to Freddie Mac surpassing Fannie Mae.

Consider the special affordable income category for 1997 and 1998. As shown earlier in Table 4 of Section III, special affordable loans accounted for a much higher percentage of Fannie Mae's acquisitions of home purchase loans than of Freddie Mac's in each of these two years. Similarly, in 1997, special affordable loans accounted for 11.5 percent of Fannie Mae's total (both home purchase and refinance) purchases, compared with only 9.9 percent of Freddie Mac's total

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<sup>50</sup> If B&C loans are excluded from market definition, the underserved area percentage is reduced to 26.9 percent and the special affordable percentage is reduced to 17.3 percent. B&C loans are discussed in Section C of this appendix.

purchases. However, between 1997 and 1998, the special affordable percentage of Freddie Mac's total purchases increased from 9.9 percent to 10.9 percent, while the corresponding percentage for Fannie Mae actually declined from 11.5 percent to 11.1 percent. Thus, in 1998, Freddie Mac's overall special affordable percentage (10.9 percent) was approximately the same as Fannie Mae's (11.1 percent). This is reflected in Table B.2 by the "Fannie-Mae-to-Freddie-Mac" ratio of 1.02 for the special affordable category.

Further analysis shows that this improvement of Freddie Mac relative to Fannie Mae was due to Freddie Mac's better performance on refinance loans during 1998. The special affordable percentage of Fannie Mae's refinance loans fell from 11.1 percent in 1997 to 9.7 percent in 1998, which is not surprising given that middle- and upper-income borrowers typically dominate heavy refinance markets such as 1998. But the special affordable percentage of Freddie Mac's refinance loans did not drop very much, falling from 11.3 percent in 1997 to 10.7 percent in 1998.<sup>51</sup> Thus, Freddie Mac's higher special affordable percentage (10.7 percent versus 9.7 percent for Fannie Mae) on refinance loans in 1998 enabled Freddie Mac to close the gap between its overall single-family performance and that of Fannie Mae.

The GSEs' low-mod and underserved areas percentages followed a somewhat similar pattern as their special affordable percentages between 1997 and 1998. In 1997, Freddie Mac's underserved area percentage (21.5 percent) for total purchases was significantly less than Fannie Mae's (23.6), but in 1998, Freddie Mac's underserved areas percentage (20.9) was about the same as Fannie Mae's (21.2 percent), as indicated by a "Fannie Mae to Freddie Mac" ratio of 1.01. This convergence was mainly due to a sharper decline in Fannie Mae's underserved area percentage for refinance loans between 1997 and 1998.

## **B. Fannie Mae versus Freddie Mac Performance -- 1998 to 1999**

In 1998, the "Fannie-Mae-to-Freddie-Mac" ratios for all three goals-qualifying categories were approximately one, indicating similar performance for the two GSEs. As shown in Table B.2, the 1999 ratios were 0.93 for special affordable loans, 0.95 for low-mod loans, and 0.93 for underserved areas loans -- indicating that Freddie Mac, for the first time, had significantly surpassed Fannie Mae in overall performance. For instance, in 1999, underserved areas accounted for 21.8 percent of Fannie Mae's purchases, compared with 23.5 percent of Freddie Mac's purchases. For each of the three housing goal categories, Fannie Mae's performance increased between 1998 and 1999, but Freddie Mac's increased even more. For example, Fannie Mae's special affordable performance increased by 1.2 percentage points (from 11.1 percent to 12.3 percent) between 1998 and 1999 while Freddie Mac's performance increased by 2.4

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<sup>51</sup> In general, the HMDA-reported affordability percentages for GSE purchases of refinance loans have matched the corresponding GSE-reported percentages. For example, in 1997, both GSEs reported to HUD that special affordable loans accounted for about 11 percent of their purchases of refinance loans in metropolitan areas; HMDA reported the same percentage for each GSE. Similarly, in 1998, both HMDA and Fannie Mae reported that special affordable loans accounted for 9.7 percent of Fannie Mae's refinance purchases. However, in 1998, the Freddie-Mac-reported special affordable percentage (10.7 percent) for its refinance loans was significantly higher than the corresponding percentage (9.5 percent) reported in the HMDA data. The reasons for this discrepancy require further study.

percentage points (from 10.9 percent 13.3 percent).

### **C. B&C Loans**

Table 5 in Section III showed that the estimates for the home purchase market do not change much when loans for subprime lenders are excluded from the HMDA analysis; the reason was that subprime lenders operate primarily in the refinance market. Therefore, in this appendix's analysis of the total market (including refinance loans), one would expect the treatment of subprime lenders to significantly affect the market estimates. For the year 1999, excluding over 300 HMDA reporters that specialize in subprime lending reduced the goal-qualifying shares of the total market as follows: special affordable (from 18.3 to 16.1 percent); low-mod (from 46.3 to 43.7 percent); and underserved areas (from 28.2 to 25.4 percent). The GSEs have been entering the subprime market over the past two years, particularly the A-minus portion of that market. Industry observers estimate that A-minus loans account for 50-70 percent of all subprime loans while the more risky B&C loans account for the remaining 30-50 percent. Thus, one proxy for excluding B&C loans originated by the specialized subprime lenders from the overall market benchmark might be to reduce the goal-qualifying percentages from the HMDA data by half the above differentials. Accounting for B&C loans in this manner would reduce the 1999 HMDA-reported goal-qualifying shares of the total conforming market as follows: special affordable (from 18.3 to 17.3 percent); low-mod (from 46.3 to 45.1 percent); and underserved areas (from 28.2 to 26.9 percent).<sup>52</sup>

The findings with respect to the GSEs' performance relative to the overall (home purchase and refinance) market are similar to those discussed earlier for home purchase loans in Sections II and III. Both Fannie Mae and Freddie Mac continue to lag the conventional conforming market in funding goals-qualifying loans. This can be seen from the "GSE-to-Market (without B&C loans)" ratios reported in Table B.2. In 1999, underserved areas accounted for 21.8 percent of Fannie Mae's purchases and 26.9 percent of loans originated in the non-B&C portion of the conventional conforming market, yielding a "Fannie-Mae-to-market" ratio of 0.81. While the "Freddie-Mac-to-Market" ratio (0.87) was higher than Fannie Mae's, it remained significantly below one.

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<sup>52</sup> However, as discussed in Appendix D of HUD (2000d), much uncertainty exists about the size of the subprime market and its different components. More data and research are obviously needed on this growing sector of the mortgage market.



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## **WORKING PAPER SERIES**

HF-012      **The GSEs' Funding of Affordable Loans: A 1999 Update**, by *Harold Bunce*, December 2000.

This study examines the borrower and neighborhood characteristics of single-family mortgages purchased by Fannie Mae and Freddie Mac, the two major Government Sponsored Enterprises (GSEs) in the conventional secondary market. The purpose of the study is to determine whether Fannie Mae and Freddie Mac lead or lag the overall conventional conforming mortgage market in funding loans for low-income borrowers and other groups who historically have not been well served by the mortgage market. This study is the third in a series of working papers examining the affordable lending performance of the GSEs. There are two main findings. First, while both GSEs have improved their affordable lending performance since 1992, they continue to lag the conventional conforming market in funding mortgages for lower-income borrowers and for properties located in low-income and high-minority census tracts (i.e., underserved areas). Second, Fannie Mae has traditionally out-performed Freddie Mac in purchasing loans for lower-income borrowers and underserved neighborhoods; however, the relative performance of the two GSEs has recently shifted, as Freddie Mac's performance slightly surpassed Fannie Mae's during 1999.

HF-011      **An Analysis of GSE Purchases of Mortgages for African-American Borrowers and Their Neighborhoods**, by *Harold Bunce*, December 2000.

This study examines the record of Fannie Mae and Freddie Mac in providing mortgage funds for African-American borrowers and their neighborhoods. The study has four main findings. First, Fannie Mae has traditionally out-performed Freddie Mac in purchasing loans for African-American borrowers and their neighborhoods; however, between 1997 and 1999, there was a shift in the relative performance of the two GSEs, as Fannie Mae's performance declined and Freddie Mac's performance increased. Second, both GSEs lag the conventional conforming market in funding mortgages for African-American borrowers and their neighborhoods. Third, the GSEs' shares of mortgage originations for both upper-income and lower-income African-American borrowers appear low. The GSEs' market shares for loans to upper-income African-American borrowers are similar to their market shares for loans to very low-income White borrowers. Finally, the market share data reported in this paper illustrate the relatively small role that the GSEs play in funding loans for African-American borrowers in the overall (conventional and government) mortgage market.

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HF-010

**The Property Owners and Managers Survey and the Multifamily Housing Finance System**, by *William Segal*, September 2000.

The HUD Property Owners and Managers Survey (POMS) can be utilized to analyze a number of policy issues relating to financing for rental properties. In this paper, adjustment techniques to correct for the effects of data truncation are developed and are applied to derive estimates of number of units per property, the size of the multifamily mortgage stock, and the magnitude of annual mortgage origination volume, a critical parameter for benchmarking the performance of Fannie Mae and Freddie Mac. Mortgage origination volume for 1995 is estimated using both a “hot-deck” and a regression-based imputation approach. Results from the internal POMS file at the Census Bureau as well from the public-use version of the file are included here. Advantages and shortcomings of POMS in relation to a number of other multifamily data sources are noted, as are possible directions for future research.

HF-009

**1998 HMDA Highlights**, by *Randall M. Scheessele*, October 1999.

This paper describes home purchase and refinance mortgage market trends at the national level using HMDA data on mortgage denials and originations from 1998 and earlier. An important contribution of the paper is the recognition of manufactured home and subprime lenders that report to HMDA and their effect on mortgage market trends. The paper provides a list of 21 lenders that specialize in manufactured home lending and 200 lenders that specialize in subprime lending. The paper finds that manufacture home loan applications and their increasing denial rates were the primary reason for the increasing conventional denial rate since 1993. The paper also finds that conventional prime home purchase lending to minority and lower-income borrowers increased substantially between 1993 and 1994 but growth in lending to these groups since 1994 was attributable to growth in FHA, manufactured home, and subprime lending.

HF-008

**Do FHA Multifamily Mortgage Insurance Programs Provide Affordable Housing and Serve Underserved Areas? An Analysis of FHA’s Fiscal Year 1997 Book of Business and Comparison with the GSEs**, by *Edward J. Szymanoski and Susan J. Donahue*, October 1999.

This paper analyzes the rent affordability of about 67,500 unassisted multifamily units, which were insured by FHA during Fiscal Year 1997, and the proportion of these units located in *underserved areas*. In addition, the paper also compares FHA’s 1997 multifamily loans purchased by Fannie Mae and Freddie Mac (the government-sponsored enterprises, or GSEs) in regard to rent affordability and proportion of units located in underserved areas. The analysis shows that FHA is providing a substantial amount of modest cost rental housing and serving underserved areas with its unassisted multifamily mortgage insurance programs. About 95 percent of the FHA units in this study (including new construction and existing housing) were affordable at 100 percent of area median income, and over 40 percent were affordable at 60 percent of area median income. About 40 percent of the FHA units in the study were located in underserved areas. In drawing comparison between FHA and the GSEs, the paper first notes the differences as well as similarities between the multifamily programs of these respective agencies- for example, FHA offers higher loan-to-value ratios, lower debt service coverage ratios, and longer fixed-rate mortgage terms than do the GSEs. These underwriting differences notwithstanding, FHA’s affordability and underserved area percentages for FY 1997 were very similar to those of comparable Fannie Mae

and Freddie Mac mortgage purchases.

HF-007 **HMDA Coverage of the Mortgage Market**, by *Randall M. Scheessele*, July 1998.

This paper examines the coverage of HMDA data by taking advantage of loan-level data reported to HUD on mortgages insured by FHA and mortgages purchased by the GSEs. The FHA and GSE data bases provide an accurate standard against which HMDA data on FHA and GSE loans can be measured. The results of this paper provide background for using HMDA data to estimate the market share of loans for FHA and the GSEs by reporting HMDA coverage rates for FHA originations and GSE acquisitions of mortgages for 1993 through 1996. The paper finds that HMDA data under-reports GSE acquisitions mainly because a few large lenders fail to correctly report the sale of a significant number of their loans to the GSEs. Notwithstanding coverage issues, HMDA data continues to be the most comprehensive data base for measuring primary and secondary mortgage market activity.

HF-006 **Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac: 1996-97 Update**, by *Paul B. Manchester*, August 1998.

This paper (an update of HF-003) examines the mortgages purchased by Fannie Mae and Freddie Mac, the two major Government-Sponsored Enterprises (GSEs) in the conventional secondary mortgage market. The analyses focus on detailed borrower, locational, and loan characteristics of such mortgages in the 1996-97 period. In general, the report is based on the loan-level data that the GSEs submit annually to the Department. The paper finds that the GSEs generally increased their performance on the goals established by HUD in 1995 and that they surpassed all of their 1996-97 goals, with Fannie Mae's performance exceeding Freddie Mac's performance on each of the goals in both years.

HF-005 **The GSEs' Funding of Affordable Loans: 1996 Update**, by *Harold L. Bunce and Randall M. Scheessele*, July 1998.

This paper (an update of HF-001) examines the borrower and neighborhood characteristics of (GSEs) in the conventional secondary mortgage market. The analysis is based on Home Mortgage Disclosure Act (HMDA) data on home purchase loans originated in metropolitan areas between 1992 and 1996. The GSEs' mortgage purchases are compared to all mortgages originated in the conventional conforming loan market, including originations retained in portfolio by banks and thrift institutions. The paper finds that there continues to be room for further increases in purchases of affordable loans by Fannie Mae and, especially, Freddie Mac.

HF-004 **The GSEs' Purchases of Single-Family Rental Property Mortgages**, by *Theresa R. DiVenti*, March 1998.

This paper examines the single-family rental mortgages purchased by Fannie Mae and Freddie Mac, the two major Government-Sponsored Enterprises (GSEs) in the conventional secondary mortgage market. These properties are the "mom and pop shops" of the rental market, meaning they are small and largely individually owned and managed. To date there has been little research on this segment of the rental market. This analysis looks at neighborhood, affordability, borrower, and financial characteristics of the GSEs' mortgage purchases. The study finds that, while single-

family rental properties are a small portion of the GSEs' overall business, they are a large and important segment of the rental stock for lower income families.

HF-003      **Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac, 1993-95,**  
*by Paul B. Manchester, Sue George Neal, and Harold L. Bunce, March 1998.*

This paper examines the mortgages purchased by Fannie Mae and Freddie Mac, the two major Government-Sponsored Enterprises (GSEs) in the conventional secondary mortgage market. The analyses focus on detailed borrower, locational, and loan characteristics of such mortgages in the "1993-95 transition period," established by Congress in the Federal Housing Enterprises Financial Safety and Soundness Act of 1992. In general, the report is based on the loan-level data that the GSEs submit annually to the Department. The paper finds that although there were significant increases between 1993 and 1995 in the GSEs' funding of loans for groups traditionally underserved by the mortgage market, their support is generally less than that provided by portfolio lenders.

HF-002      **The Multifamily Secondary Mortgage Market: The Role of Government-Sponsored Enterprises,**  
*by William Segal and Edward J. Szymanoski, March 1997.*

This paper examines the performance of Fannie Mae and Freddie Mac in enhancing the liquidity and efficiency of the affordable segment of the multifamily mortgage market. The paper focuses specifically on the period since 1993, when HUD established affordable housing goals for these two Government-Sponsored Enterprises (GSEs). A private secondary mortgage market has developed to address the finance needs of higher end properties; yet a comparable market for mortgages on properties affordable to lower-income families lags in development. Placed within a wider market context, it is found that the GSEs have been cautious in their affordable multifamily transactions. It is concluded that the GSEs have the potential to do more to enhance the affordable segment of the multifamily mortgage market.

HF-001      **The GSEs' Funding of Affordable Loans,** *by Harold L. Bunce and Randall M. Scheessele, December 1996.*

This paper examines the borrower and neighborhood characteristics of mortgages purchased by Fannie Mae and Freddie Mac, the two major Government-Sponsored Enterprises (GSEs) in the conventional secondary mortgage market. The GSEs' mortgage purchases are compared to all mortgages originated in the conventional conforming loan market, including originations retained in portfolio by banks and thrift institutions. The analysis is based on Home Mortgage Disclosure Act (HMDA) data on home purchase loans originated in metropolitan areas between 1992 and 1995. The paper finds that there is room for further increases in purchases of affordable loans by Fannie Mae and, especially, Freddie Mac.