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CHARACTERISTICS OF MORTGAGES PURCHASED BY FANNIE MAE AND FREDDIE MAC: 1996-97 UPDATE

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Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac: 1996-97 Update[1]

I. Introduction

In 1992 Congress expressed concern about an "information vacuum" which impeded efforts to oversee the activities of Fannie Mae and Freddie Mac.[2] To provide a basis for enhanced oversight and regulation of these two government-sponsored enterprises (GSEs) and to increase information about the GSEs' operations, Congress enacted the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 ("the 1992 GSE Act"). This act:

- Provided for financial safety-and-soundness oversight of the GSEs by the Office of Federal Housing Enterprise Oversight (OFHEO), an independent office within the Department of Housing and Urban Development (HUD);

- Maintained programmatic oversight of the GSEs by the Secretary of HUD (the Secretary) in all areas other than financial safety-and-soundness, under the Secretary's general regulatory power;

- Provided for the review of the GSEs' new program requests by the Secretary;

- Required the Secretary to issue regulations pertaining to the prohibition of discrimination by the GSEs and required the GSEs to provide assistance to the Secretary pertinent to

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[2] The Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation, respectively. See the Federal Housing Enterprises Regulatory Reform Act of 1992, Senate Report 102-282, 102nd Congress, 2nd. Session at 39 (1992) for Congressional concerns about the lack of information available on the activities of Fannie Mae and Freddie Mac.

investigations of primary market lenders under the Fair Housing Act and the Equal Credit Opportunity Act;

- Called for the Secretary to periodically review and comment on the GSEs' underwriting and appraisal guidelines;

- Required the Secretary to establish annual affordable and geographic goals for the GSEs' purchases of mortgages--initially for 1993-95 (referred to as "the transition period") and subsequently for 1996-99[3]; and

- Required the GSEs to submit loan-level data to the Secretary about the mortgages they buy, including detailed borrower and mortgage characteristics.

The 1992 GSE Act also required HUD, after taking proprietary considerations into account, to make the loan-level data submitted by the GSEs available in a public-use data base.[4] The Act also called for the Department to analyze data on the GSEs' operations, in order to report to Congress and the public on the extent to which the GSEs are achieving their statutory purposes.

This paper is the sixth in a series of reports intended to help remedy the "information vacuum" that Congress found in 1992.[5] It analyzes the GSEs' performance in funding affordable loans for lower-income families and other disadvantaged borrowers and their neighborhoods in 1996-97, updating an earlier paper which focused on the 1993-95 transition period[6]. The paper reports the results of several detailed analyses concerning the characteristics of the single-family mortgages purchased by the GSEs in the two most recent years. The data reveal changes in the GSEs' performance during this period and allow comparisons between the performance of Fannie Mae and Freddie Mac.

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[3] 58 FR 53048 and 53072 (October 31, 1993), 59 FR 61504 (November 30, 1994) and 24 CFR Part 81.

[4] 61 FR 54322-54329 (October 17, 1996).

[5] Earlier papers include Bunce and Scheessele (1996 and 1998); Segal and Szymanoski (1997); Manchester, Neal, and Bunce (1998); and DiVenti (1998).

[6] The earlier paper was Manchester, Neal, and Bunce, *Characteristics of Mortgages Purchased by Fannie Mae and Freddie Mac, 1993-95*, Working Paper No. HF-003 (March 1998), hereinafter referred to as "the 1993-95 Paper." In order to provide a perspective on key trends, in some cases data for 1993-95 is also presented herein. Two sections of the 1993-95 Paper have not been updated in this paper--"GSEs' Purchases Compared with Originations in the Primary Market" and "Analyses of Special Topics," though the former are presented for 1996 in Bunce and Scheessele (1998).

A. Organization of Paper

The next subsection briefly defines the housing goals and reports the GSEs' performance relative to the 1996-97 goals, with a brief discussion of the 1993-95 goals in Appendix A. Section II reviews Fannie Mae's and Freddie Mac's mortgage purchases by major property type. Section III presents basic characteristics (borrower income and race, type of neighborhood, loan characteristics) of the GSEs' purchases of loans on one-family owner properties. Each major section contains a conclusion that summarizes the main findings.

The analysis in this paper is based on the loan-level data that the GSEs submit annually to HUD about the mortgages that they purchase. In some cases certain data elements are missing from the loan-level data. A discussion of the nature, extent, and trends in this "missing data problem" for the 1993-97 period is contained in Appendix B.

B. Housing Goals and Performance for 1996-97

In December 1995 HUD issued housing goals for the GSEs for 1996-99, revising and restructuring the goals which were in effect for 1993-95. The 1996-99 goals are:

- A **low- and moderate-income goal**, which targets mortgages on housing for families with less than median income, set at 40 percent of total units financed by each of the GSEs in 1996 and at 42 percent for each year from 1997 through 1999;

- A **geographically-targeted goal**, which targets mortgages on properties located in "undeserved areas," defined as low-income and high-minority census tracts (excluding high-income high-minority tracts), set at 21 percent of total units financed by each of the GSEs in 1996 and at 24 percent for each year from 1997 through 1999;

- A **special affordable goal**, which targets mortgages on housing for very low-income families and low-income families living in low-income neighborhoods, set at 12 percent of total units financed by each of the GSEs in 1996 and at 14 percent for each year from 1997 through 1999; and

- A **special affordable multifamily subgoal**, for very low-income renters and low-income renters living in low-income neighborhoods, in multifamily properties (defined as properties with five or more units), set at $1.29 billion per year for Fannie Mae and $988 million per year for Freddie Mac, for each year from 1996 through 1999.

The performance of the GSEs for all years from 1993 through 1997 and the levels of the goals for 1996 and 1997-99 are presented in Table 1 and shown in Figures 1-4. Data for 1993-95 is based on HUD's analysis of the GSEs' data, while performance in 1996-97 is based on the GSEs' submissions to the Department, and thus is subject to revision by the Department.

Both GSEs reported that they exceeded all of their goals in the last two years, although not in the transition period. For example, 45.5 percent of Fannie Mae's purchases and 42.9 percent of Freddie Mac's purchases were reported as qualifying for the low- and moderate-income goal in 1997, surpassing HUD's target of 42 percent. The GSEs stated that in 1996-97 their geographically-targeted goals were exceeded by at least two percentage points, and that their special affordable goals were exceeded by at least one percentage point.

The special affordable multifamily dollar-based subgoals were set at a time when Freddie Mac was just reentering the multifamily business, thus they have readily been surpassed by Fannie Mae, but have been a challenge for Freddie Mac, especially in 1996, when a late-December $535 million multifamily swap involving 80 seasoned mortgages was necessary to achieve the goal.[7]

For the period as a whole, significant gains have been made relative to the income-targeted goals, with combined special affordable performance doubling between 1993 and 1997 and combined low- and moderate-income purchases increasing from 32 percent in 1993 to 44 percent in 1997. Fannie Mae has consistently surpassed Freddie Mac in goal performance, but Freddie Mac's relative performance has increased, from 72 percent of Fannie Mae's special affordable record in 1993 to 80 percent in 1997, and from 88 percent of Fannie Mae's low- and moderate-income performance in 1993 to 94 percent in 1997.

Gains have also been made relative to the geographically-targeted goal, with combined performance rising by 25 percent between 1993 and 1997. In 1994 Fannie Mae may have modified its business strategy to focus on performance under this goal, thus its performance jumped by 6.1 percentage points in that year alone, and has since remained at the 1994 level. Freddie Mac has shown more gradual, but relatively steady, gains in this area, though its performance, relative to Fannie Mae's, was lower in 1997 than in 1993.

The 1996-99 goals replaced those that were in effect for the 1993-95 "transition period." The major change was that the geographically-targeted goal shifted from central cities, as defined by the Office of Management and Budget, to "underserved areas" in cities, suburbs, and rural areas, as defined by HUD after considerable research on mortgage origination and loan denial rates. The special affordable goal was also reformulated as a percentage-of-business goal from the dollar-based goals of the transition period, and its structure was simplified. A focus on

[7] See "Freddie Mac Closes Largest Multifamily Swap; $535 Million Transaction Helps Nearly 20,000 Families," Freddie Mac press release, December 23, 1996.

multifamily mortgages was retained through the special affordable multifamily subgoal. The 1993-95 goals and the GSEs' performances on these goals are summarized in Appendix A.[8]

[8] For a full discussion of the transition period housing goals, see Chapter 3 of HUD's privatization study, Privatization of Fannie Mae and Freddie Mac: Desirability and Feasibility, A HUD Report, Office of Policy Development and Research, HUD, July 1996.

II. Overview of the GSEs' Mortgage Purchases in 1996-97

Fannie Mae and Freddie Mac are very large business operations, both in terms of mortgages purchased and total dwelling units financed (see Table 2). In 1997, Fannie Mae's mortgage purchases of $165 billion financed almost 1.9 million dwelling units, while Freddie Mac's mortgage purchases of $118 billion financed more than 1.2 million units.[9] Reflecting market trends, both GSEs' purchases were slightly lower in 1997 than in 1996, and purchases were substantially lower than their purchases during the refinancing wave of 1993, when Fannie Mae purchased $294 billion in mortgages and Freddie Mac purchased $229 billion, financing 3.2 million and 2.4 million dwelling units respectively (see Figure 5.)

A. GSEs' Business by Major Property Type

Mortgages on One-Family Owner Properties. Mortgages purchased by the GSEs are primarily secured by one-family owner properties. Of all the housing units financed by the GSEs in 1997, 80 percent of Fannie Mae's units and 86 percent of Freddie Mac's units were in one-family owner properties (see Figure 6.) HUD estimates that such properties accounted for 67 percent of all dwelling units financed in the conventional conforming market in 1997.[10,11] Thus

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[9] Data on the distribution of units by property type for the GSEs' mortgage purchases and the primary market in 1993-95 is shown in Tables 2.A, 2.B and Figure 2 of the 1993-95 Working Paper.

[10] The term "conventional" refers to mortgages that are not insured or guaranteed by a government agency such as the Federal Housing Administration (FHA), the Department of Veterans Affairs (VA), or the Rural Development Agency (RDA). The GSEs are restricted to purchasing loans with principal balances within the conforming loan limit, which was $207,000 in 1996 and $214,600 in 1997.

[11] See Appendix D of HUD (1995) for the methodology for determining the shares of mortgage originations accounted for by the different property types.

the GSEs, particularly Freddie Mac, focus their business substantially more on one-family owner properties than does the overall market.

Mortgages on Single-Family Rental Properties. The GSEs also purchase mortgages on single-family rental properties, which include 1- to 4-unit investor properties with no owner-occupied units and 2- to 4-unit properties that contain one owner-occupied unit and one or more rental units.[12] In terms of dwelling units, single-family rental mortgage purchases accounted for approximately 6.5 percent of each GSE's 1997 total purchases. HUD estimates that these properties accounted for 12 percent of the conventional conforming mortgage market in 1997.

Mortgages on Multifamily Properties. The GSEs also purchase mortgages on multifamily properties, defined as rental properties containing 5 or more units. Freddie Mac reentered the multifamily mortgage market near the end of 1993, thus it had negligible multifamily purchase volume for that year (only $191 million). In 1994, Freddie Mac was in the market for the entire year, as its multifamily mortgage purchases rose to $913 million. Freddie Mac's multifamily volume has continued to rise, to $1.58 billion in 1995, $2.35 billion in 1996, and $2.72 billion in 1997. Despite the increases, Freddie Mac's multifamily purchases represented only 8 percent of the units it financed.[13] In comparison, HUD estimates that multifamily mortgages account for 21 percent of the total number of dwelling units financed in the conventional conforming market in 1997.

Fannie Mae has been much more active than Freddie Mac in the multifamily mortgage market. Fannie Mae's multifamily purchases rose from $4.6 billion in 1993 to $6.1 billion in 1995 and $7.0 billion in 1996, before declining slightly to $6.9 billion in 1997. Fannie Mae's 1997 multifamily purchases represented 13 percent of the enterprise's overall business in terms of total units financed, down from 15 percent in 1995, but still well above Freddie Mac's multifamily activity.[14]

B. GSEs' Share of the Market

The GSEs' purchases accounted for a rising share of the single-family conventional conforming market between 1980 and 1993 (see Figure 7.) In the early 1980s, the GSEs' share

[12] Data on the volume of the GSEs' single-family rental purchases backed by 2- to 4-unit owner-occupied properties include the owner-occupied units.

[13] Multifamily purchases consistently represent a greater percentage of total units than of the dollar amount of mortgages purchased. This reflects the fact that multifamily mortgages generally have a lower mortgage amount per unit than mortgages on one-family owner properties (e.g., $27,000 versus $99,000 for the GSEs' combined 1997 purchases).

[14] A greater presence in the multifamily market is a major reason why Fannie Mae's performance on the housing goals has consistently exceeded Freddie Mac's record.

ranged from 12 to 34 percent of the dollar volume of originations in the single-family conforming conventional market. In the high volume origination years of 1986 and 1987, the GSEs' share rose to about 45 percent, and then rose dramatically in the early 1990s, reaching a peak of 71 percent during the high refinancing year of 1993. In 1994, the GSEs' share of the conforming conventional market dropped to 55 percent, due primarily to a greater volume of conventional adjustable-rate mortgages (ARMs), as interest rates rose after the first quarter.[15] The GSEs' market share fell further to 43 percent in 1995, and remained between 40 and 50 percent in 1996 and 1997.

[15]Banks and thrifts are less likely to sell ARMs, which involve little interest rate risk, than fixed-rate mortgages to the GSEs. They generally hold ARMs in their portfolios.

The GSEs' purchases represent a much smaller share of the multifamily market than of the single-family market. Based on HUD's Survey of Mortgage Lending Activity, conventional multifamily mortgages amounted to $43.7 billion in 1996.[16] Thus, the GSEs' combined purchases of $9.4 billion represented 22 percent of the multifamily market in 1996. The GSEs' share of this market seems to have stabilized in this range.

C. Conclusions

The section has provided a brief overview of the GSEs' mortgage purchases between 1993 and 1997. Following broad market patterns, the GSEs' mortgage purchases reached record highs during the refinancing wave of 1993, before declining in 1994 and falling further in 1995 due to higher interest rates. The GSEs' activity rebounded to the 1994 level in 1996-97. However, in each year, the distribution of the GSEs' purchases by major property type differed from the corresponding distribution of market originations--the GSEs' focus their business much more on one-family-owner mortgage originations than the overall market. Their business, particularly that of Freddie Mac, is less focused on single-family rental and multifamily mortgages than the overall market.

Since 1990, the GSEs have generally purchased about 50 percent of single-family mortgages originated in the conforming conventional mortgage market, peaking at 71 percent in 1993, before declining to 43 percent in 1995, but rebounding somewhat since 1995. In 1997, they accounted for only about 22 percent of the dollar volume of originations in the multifamily conforming conventional market.

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[16] Data from the Survey of Mortgage Lending Activity on mortgage originations in 1997 has not been released to date. For single-family mortgages, the Federal Housing Finance Board has estimated that in 1997 conforming conventional originations amounted to 90 percent of total conventional originations. Conforming loan limits also exist for multifamily mortgages, but they are sufficiently high that virtually all conventional multifamily mortgages are conforming.

III. Loan, Borrower, and Neighborhood Characteristics of Mortgages on One-Family Owner-Occupied Properties Purchased by the GSEs, 1993-97

This section presents basic characteristics of the mortgages on one-family owner-occupied properties purchased by Fannie Mae and Freddie Mac. As reported in Section II, such mortgages accounted for 86 percent and 80 percent of the total units in properties whose mortgages were purchased by Freddie Mac and Fannie Mae respectively in 1997. Because they play such an important role in the GSEs' activities, and because much more data are available on these loans than on mortgages for rental properties, the remainder of this paper analyzes these purchases in detail.[17]

Specifically, this section describes the characteristics of the mortgages purchased, the borrowers who took out these loans, and the neighborhoods in which the mortgaged properties were located in 1996-97. Because significant differences sometimes occur between borrowers who are purchasing homes and those who are refinancing existing loans, this section presents available data for these two types of borrowers separately.[18] In analyzing 1993-97 trends, the analysis focuses on the GSEs' acquisitions of home purchase loans only, because of the importance of homeownership to American families.

A standard set of definitions is used to describe borrowers and the metropolitan area census tracts (or non-metro counties) where mortgaged properties are located. These definitions are provided in Table 3.[19]

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[17] See Segal and Szymanoski (1996, 1998) for analyses of the GSEs' multifamily mortgage purchases and DiVenti (1998) for an analysis of the GSEs' single-family rental mortgage purchases.

[18] In some cases (such as the distribution of loan-to-value ratios in Table 5) the GSEs have declared the breakdown between home purchase and refinance loans to be proprietary.

[19] Several figures in the definition of "Underserved Areas" in Table 3 of the 1993-95 Paper were transposed--the correct definitions for properties in/outside metropolitan areas are "census

tracts/counties with median income at or below 120 percent of AMI *and* minority population at or above 30 percent, *or* median income at or below 90/95 percent of AMI."

A. Single-Family Loans: 1993-97 Trends

Information on several loan characteristics of single-family mortgages purchased by the GSEs between 1993 and 1997 is presented in Table 4.

Reason for Loan. Almost all of the mortgages acquired by the GSEs are for the purchase of a home or the refinancing of an existing mortgage; second mortgages comprise a small percentage of their acquisitions, although the GSEs have increased their role in the secondary market for second mortgages since 1994[20]. Both GSEs' home purchase mortgage acquisitions fell in 1994 and then rose in 1995 and 1996, as shown in Table 4. A divergence arose in 1997, when Fannie Mae's purchases of home purchase mortgages continued to rise, while Freddie Mac's purchases of such loans fell by 10 percent.

Each GSE's volume of refinance mortgages declined by more than one-half between 1993 and 1994, and by an additional 50 percent between 1994 and 1995, but jumped in 1996 before retreating in 1997. As a result of these developments, the share of the GSEs' purchases accounted for by refinance mortgages fell from almost 70 percent in 1993 to 33 percent in 1995 and averaged approximately 40 percent in 1996-97.[21]

Seasoning. The GSEs have directed more of their purchases to seasoned mortgages (those originated in a previous year) since 1993.[22] In that year 14 percent of the mortgages they

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[20] Second and home improvement mortgages amounted to 0.8 percent of Fannie Mae's purchases in 1994, the first year such loans were purchased in any significant quantity, and 2.0 percent of total purchases in 1997; Freddie Mac first began such purchases in 1997, when they amounted to 0.3 percent of loans acquired.

[21] The refinance share of conventional single-family mortgage originations was 55 percent in 1993, 25 percent in 1995, and approximately 30 percent in 1996-97. Thus, refinance mortgages made up a higher percentage of the GSEs' purchases than of the overall market in each year.

[22] Another definition of "seasoned mortgage" is one originated more than 365 days prior to acquisition by a GSE. The conclusions are essentially the same under either definition.

purchased were seasoned, but this share rose to 31 percent in 1994, before declining to 24 percent in 1995-96. In 1997 Freddie Mac further reduced its seasoned loan share to 19 percent, while Fannie Mae's seasoned purchases' share remained at 27 percent--in terms of volume, Fannie Mae purchased twice as many seasoned loans as Freddie Mac last year. Between 1996 and 1997 Fannie Mae's purchases of prior-year originations increased by 22 percent for properties in underserved areas, but decreased by 10 percent for properties in other locations, which may indicate targeted purchases of older loans in 1997 to enhance its performance on the geographically-targeted goal.

Mortgage Type and Term. The shares of mortgage originations accounted for by fixed-rate mortgages (FRMs) and by adjustable-rate mortgages (ARMs) depend on the level of interest rates (with the ARM share rising at higher interest rates, as borrowers' incentives to lock in low fixed rates decrease) and the difference (spread) between rates on FRMs and ARMs (with a smaller spread reducing incentives to take out ARMs). The ARM share of the market rose from 20 percent in 1993 to 39 percent in 1994, due to an increase in mortgage rates. The further increase in mortgage rates in 1995 was more than offset by a decrease in the FRM-ARM spread, resulting in a decline in the ARM share of originations to 33 percent. As mortgage rates trended lower, the ARM share continued to decline, to 27 percent in 1996 and 22 percent in 1997. The ARM share of GSEs' purchases followed these trends, rising from 9 percent in 1993 to 14 percent in 1994 and 21 percent in 1995 for Freddie Mac, before declining to 7-8 percent in 1996-97.[23] [24]

After 1993 there were significant shifts in the market and in the GSEs' purchases away from 15-year fixed-rate mortgages, which had increased substantially during 1993, when historically low interest rates made monthly payments on shorter-term mortgages affordable to many middle-income homeowners. The 15-year FRM share of GSEs' purchases declined accordingly, from 30 percent in 1993 to 21 percent in 1994 and 14-18 percent in 1995-97 for Freddie Mac.

Type of Seller. As shown in Table 4, mortgage companies accounted for more than 60 percent of the loans sold to the GSEs in 1997. Fannie Mae has relied much more on mortgage companies than Freddie Mac (66 percent versus 60 percent in 1997). In that year, Freddie Mac purchased 37 percent its mortgages from banks and thrifts, compared to 32 percent for Fannie Mae.[25]

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[23] As reported in Freddie Mac's Investor/Analyst Report, First Quarter 1998, p.18.

[24] Lenders are much more likely to hold ARMs than FRMs in portfolio, as confirmed by the fact that the ARM share of the GSEs' purchases is well below the ARM share of the primary market in every year.

[25] Some mortgage companies are owned by banks and thrifts, though the data provided to HUD by the GSEs does not separate such mortgage companies from independent mortgage companies. Over a longer time span, the role of mortgage companies in housing finance (both independent and depository-affiliated) has grown significantly.

Location of Mortgaged Properties. Fannie Mae and Freddie Mac also differ somewhat in their purchases in urban and rural areas.[26] In 1997, non-metropolitan areas accounted for 16 percent of Freddie Mac's purchases, compared with 13 percent of Fannie Mae's purchases.

[26] A more detailed analysis of the characteristics of the neighborhoods in which the properties whose mortgages were financed by the GSEs were located is given in subsection III.C.

B. Home Purchase and Refinance Loans: 1996-97 Characteristics

There are systematic differences between home purchasers and borrowers who are refinancing existing loans, and these differences may have significant effects on the performance of the GSEs relative to the housing goals. Therefore, this subsection presents data separately for loan and borrower characteristics (Table 5) and census tract characteristics (Table 6) for home purchase loans and refinance loans on owner-occupied one-unit properties in 1996-97.[27]

Borrower Income. Over the 1996-97 period, about 65 percent of the GSEs' home purchase mortgages went to borrowers with incomes above area median income (AMI), with approximately half going to borrowers whose incomes exceeded 120 percent of AMI. This pattern was essentially unchanged from 1993-95.

In 1997, 10 percent of Fannie Mae's home purchase loans went to very low-income (VLI) borrowers, up from less than 7 percent in 1993, and Freddie Mac's VLI share was 7.5 percent, in comparison with 6.2 percent in 1993. Fannie Mae's VLI share has consistently exceeded Freddie Mac's share throughout the 1993-97 period (see Table 7 below). However, both GSEs' purchases of such loans were below the VLI share of the primary conventional mortgage market.[28]

Race/Ethnicity. More than 80 percent of home purchase loans purchased by the GSEs in 1996-97 were made to (non-Hispanic) white borrowers. In 1993, only 2-3 percent of the GSEs' home purchase mortgages went to African American borrowers; this share rose to 3-4 percent by 1995, but fell slightly by 1997. Similar gains were also made for Hispanics, from 3-4 percent in 1993 to 4-6 percent in 1995, with some decline also in 1996-97. Both groups' shares have consistently been higher for Fannie Mae than for Freddie Mac, possibly due to Fannie Mae's somewhat greater concentration of business in metropolitan areas or to its greater emphasis on outreach to traditionally underserved borrowers.

[27] The distributions of loan-to-value ratios for home purchase mortgages and refinance mortgages separately have been marked as proprietary by the GSEs, thus these breakdowns are not presented in Table 5 or Figure 8.

[28] Comparisons between the primary market and the GSEs are contained in Bunce and Scheessele (1996 and 1998).

First-time and Repeat Buyers. As housing has become more affordable, first-time homebuyers have played a more significant part in the market. These are typically people in the 25-34 year-old age group who purchase modestly-priced homes. Although the proportion of the population in this group decreased from 18 percent in 1985 to 15 percent in 1996, first-time homebuyers increased from about 40 percent of all buyers in the 1980s to 45 percent or more in recent years.[29] The GSEs lag the market in support for first-time homebuyer loans because many such buyers take out loans insured by the FHA. In 1997, 34 percent of Fannie Mae's home purchase loans were for first-time homebuyers, somewhat above Freddie Mac's first-time homebuyer share (28 percent), but both were well below the two-thirds of FHA-insured home purchase loans for first-time homebuyers in recent years.

Downpayments. Most of the mortgages that the GSEs purchase have high downpayments. As shown in Table 5, 68-69 percent of the home purchase and refinance loans acquired by Fannie Mae in 1996-97 had a loan-to-value ratio (LTV) at or below 80 percent.[30] Such low-LTV (high-down payment) loans accounted for 70 percent of Freddie Mac's 1997 purchases, though the share of loans with very high down payments (LTVs at or below 60 percent) was slightly larger for Fannie Mae (19 percent) than for Freddie Mac (18 percent). Since 1995 Freddie Mac has entered the very high-LTV (greater than 95 percent) market, though such loans still amounted to only 0.6 percent of its loans in 1997, compared with 2.2 percent of Fannie Mae's loans last year.

In general, high-LTV loans are much more common among home purchase mortgages than among refinance mortgages, but in 1996 the GSEs declared data on the breakdown of LTV ratios separately for purchase loans and refinance loans to be proprietary. Thus this information has been suppressed in Table 5.

Lower income households are constrained in two ways from becoming homeowners. Their incomes limit the monthly mortgage payment for which they can qualify and also make it more difficult for them to accumulate a down payment. Thus one would expect more high-LTV (low down payment) loans among lower income families. Surprisingly, this has not been the case for the mortgages purchased by the GSEs, as shown in Figure 8. In 1993, 86 percent of very low-income borrowers made down payments of 20 percent or more, exceeding the corresponding high down payment shares for families with incomes between 60 percent and 100 percent of area median income (80 percent) and families with incomes in excess of area median (79 percent); this same general pattern of the highest down payments being made by the lowest-income borrowers

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[29] See Chicago Title (1998) for primary mortgage market data on first-time homebuyers.

[30] The GSEs are required by statute to have private mortgage insurance or some other form of credit enhancement on loans that they purchase with an LTV greater than 80 percent.

also prevailed for 1994-97. Further study is warranted to determine whether this pattern of higher downpayments among lower income families also prevails in the primary conventional mortgage market or whether the mortgages purchased by the GSEs are atypical in this regard.

Census Tract Characteristics. Extensive research has been conducted using HMDA data and other information on issues of redlining and the extent to which lenders are meeting the credit needs of underserved areas. Such studies show substantial disparities between mortgage flows in neighborhoods of varying income levels and minority percentages.[31] The remainder of this subsection examines the characteristics of the census tracts containing properties with home purchase mortgages sold to Fannie Mae and Freddie Mac in the 1996-97 period.

Income Level and Minority Composition of Neighborhood. Most mortgages acquired by the GSEs are on properties in low-minority areas and in areas with above average incomes (see Table 6).[32] Specifically, more than half of each GSE's loans in 1996-97 were for properties in census tracts in which minority residents comprised less than 10 percent of the population, and fewer than 10 percent were in low-income tracts in each year. In both years, Fannie Mae purchased relatively more loans from both low- and high-income tracts than Freddie Mac, which had a higher share of its purchases from middle-income tracts (i.e., those with median incomes between 80 percent and 120 percent of area median income). As in 1995, high-minority/low-income tracts accounted for less than 5 percent of the loans sold to each GSE in 1996 and 1997.

Underserved Areas. HUD was directed by the 1992 GSE Act to expand and, as appropriate, modify the basis for the geographically-targeted goal from central cities, the focus during the 1993-95 transition period, to include rural areas and other underserved areas for subsequent years. After a considerable amount of research on access to mortgage credit, the Department determined that the definition most consonant with Congressional intent was based on the income level and minority composition of metropolitan census tracts and nonmetro counties, because such neighborhoods generally have low mortgage origination rates and high loan denial rates. Thus the geographically-targeted goal has been specified in this manner for 1996-99, as noted in Table 3.

Although the goals were not established on this basis for 1993-95, sufficient information is available from the data supplied by the GSEs to measure their purchases in such areas during this period. The GSEs' purchases of home purchase loans on properties in underserved areas are shown in Table 7 for 1993-97. Such loans rose from 21 percent of Fannie Mae's purchases in

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[31] These studies were reviewed in detail in Appendix B of the Secretary's final rule regulating the GSEs, contained on pp. 61925-61958 of the December 1, 1995 Federal Register.

[32] Data corresponding to that in Table 6 were presented for 1995 in Table 8 of the 1993-95 Working Paper.

1993 to 25 percent in 1995, but, surprisingly, declined to 23 percent in 1996 (when the goals were first reformulated to focus on such areas), before returning to the 25 percent level in 1997. A similar pattern exists for Freddie Mac, with loans on properties in underserved areas rising from 19 percent in 1993 to 21 percent in 1995, but then leveling off at that level in 1996-97. The lack of any change in performance resulting from the reformulation of the geographically targeted goal may reflect primary market developments, but it may also suggest that HUD's 1996-97 underserved areas goal was not set a sufficiently high level to challenge the GSEs.

C. Home Purchase Loans: 1993-97 Trends

In measuring goal compliance, all units (whether in rental or owner-occupied housing) financed by all mortgages (whether for home purchase or refinancing) are taken into account. But given the importance placed by most Americans on homeownership, this subsection focuses solely on home purchase loans for one-unit properties. Trends in key dimensions of the GSEs' acquisitions of such loans are summarized in Table 7 for the 1993-97 period. Each statistic measures the shares of such loans for each borrower and neighborhood category, and ratios of Freddie Mac's shares to Fannie Mae's shares for each category are also presented. Six general patterns emerge:

First, gains by very low-income borrowers between 1993 and 1995 continued between 1995 and 1997. For Freddie Mac, this group's share of home purchase mortgages rose from 6.2 percent in 1993 to 6.8 percent in 1995 and 7.4 percent in 1997, and for Fannie Mae, from 6.8 percent in 1993 to 9.3 percent in 1995 and 10.1 percent in 1997.

Second, gains by minority borrowers between 1993 and 1995 were not maintained between 1995 and 1997. For Fannie Mae, the share of home purchase loans going to African Americans rose from 2.7 percent in 1993 to 4.4 percent in 1995, but declined to 4.1 percent by 1997, with a comparable trend for Freddie Mac, from 2.0 percent in 1993 to 3.2 percent in 1995 and 2.7 percent in 1997. A similar pattern arose among Hispanics, who saw their share of such loans increase between 1993 and 1995, before declining between 1995 and 1997. And in absolute terms, the total number of home purchase mortgage loans rose by 10 percent between 1995 and 1997, but the numbers of such loans fell by 2 percent for African Americans and by 5 percent for Hispanics over the last two years.[33]

Third, the disparities between the 1995-97 trends in income characteristics of borrowers and their racial/ethnic characteristics were (not surprisingly) reflected in the neighborhood data,

[33] HMDA data for 1997 will indicate whether these trends in the GSEs' purchases of loans made to African Americans and Hispanics reflected or departed from the 1995-97 trends in minority lending in the primary market.

with the share of home purchase loans in low-income tracts continuing to rise between 1995 and 1997, while the share for high-minority tracts declined over this period.

Fourth, in 1994 the first-time homebuyers' share of home purchase mortgages was comparable for Freddie Mac and for Fannie Mae, but since that time a gap has opened up betweeen the two GSEs in this dimension of their lending.[34]

Fifth, despite HUD's reformulation of its geographically-targeted goal to underserved areas, effective in 1996, the share of the GSEs' loans in such areas declined slightly between 1995 and 1997.[35]

Sixth, the convergence between the two GSEs in the shares of their loans for lower-income and minority borrowers and their neighborhoods between 1995 and 1996 was generally reversed in 1997, as shown by the 1995-96 increases and 1996-97 decreases in the "Freddie Mac/Fannie Mae ratios" for most of the categories in Table 7. For example, the share of Freddie Mac's loans in low-income tracts rose between 1995 and 1996, both in absolute terms and relative to Fannie Mae's share; unlike Fannie Mae's record, Freddie Mac's low-income tract share showed no further increase in 1997. Thus, with the exception of loans made to Hispanics, 1997 saw a return to the pre-1996 pattern of disparities between the two GSEs in most dimensions of lower-income and minority lending.

D. Cross-tabulations of GSEs' Purchases of Single Family Mortgages By Race and Income

The tabulations in Table 7 indicate that the shares of the loans purchased by Freddie Mac for African-Americans, Hispanics, and very low-income borrowers have consistently been below the corresponding shares of loans purchased by Fannie Mae. These discrepancies are analyzed in more detail in Table 8, which provides a cross-tabulation of home purchase loans by GSE by race and income for 1997.

The ratios of loans purchased by Freddie Mac to loans purchased by Fannie Mae indicate the compounding effects of the patterns in Table 7 on lower-income minority households. For example, in 1997 Freddie Mac's purchases of home purchase loans to very low-income African Americans amounted to 29 percent of Fannie Mae's purchases of such loans, and the corresponding ratio for very low-income Hispanics was 39 percent. The corresponding ratio for white borrowers with incomes above area median was 73 percent.[36] Within every group except

[34]The first-time homebuyer percentage for Fannie Mae in 1993 (24 percent) seems inconsistent with other dimensions of their lending and may reflect inaccuracies in the data for 1993.

[35]As shown in Table B.2 of Bunce-Scheessele (1998), the share of the conforming market accounted for by underserved areas declined slightly between 1995 and 1996; data for 1997 are not yet available.

[36]Equivalently, it may be noted that Freddie Mac accounted for 42 percent of the GSEs' combined

Asian Americans, the Freddie Mac-Fannie Mae ratio was substantially lower for lower-income borrowers than for higher-income borrowers

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purchases of mortgages made to above median income whites, but 23 percent of the total purchases of mortgages made to very-low income African Americans.

In order to determine if geographical differences between the GSEs in their purchase patterns account for the discrepancies in their shares of single-family lending for minority and lower-income borrowers, the cross-tabulations shown in Table 8 have been run for 15 metropolitan areas.[37] The Freddie Mac-Fannie Mae purchase ratios are shown for very low-income and above median income African American and White borrowers in Table 9. For four areas (Los Angeles, New York, San Francisco, and Washington) the ratios do not differ greatly between the two racial groups and the two income categories shown, but the nationwide patterns shown in Table 8 appear in the other eleven metropolitan areas. The reasons for the discrepancies between the GSEs in these eleven MSAs are not apparent.[38]

E. Refinance Loans By Income Level, 1993-97

In general, refinancing mortgagors tend to be older and take out loans with significantly lower LTVs than home purchase borrowers. Higher-income borrowers are most likely to refinance their loans when interest rates are lowest, as shown in Table 10, which presents the distribution of refinance mortgages by income level for the 1993-97 period. More than half of refinancers with incomes in excess of AMI took out their new loans in 1993, when mortgage rates were at the lowest level of this period, but only about one-third of very low-income refinancers took advantage of these lowest rates. Thus only about one-fifth of above-median income refinancers were in the market in the higher interest rate years of 1995 and 1996, compared with

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[37]Loan purpose by borrower race and income is not available at the individual MSA level, thus the tabulations in Table 9 include all single-family loans--for home purchase, refinancing, and second loans.

[38]Because of inconsistencies between the GSEs in reporting lender names, it is not possible to compare the sales of given lenders to the GSEs in the same metropolitan area using data from the GSE Public Use Data Base. However, such comparisons can be made utilizing the data on loans sold to each GSE as reported by lenders in accordance with the Home Mortgage Disclosure Act (HMDA). Such an analysis would indicate, for example, if the loans sold by Lender X to Fannie Mae in metropolitan area Y "look like" the loans sold by Lender X to Freddie Mac in metropolitan area Y.

more than 30 percent of very low-income refinancers.

Data on the interest rates on individual loans is not available, but the timing of refinancings suggests that on average lower-income families paid higher rates on their refinancings than higher-income borrowers for the 1993-97 period as a whole. This may reflect better knowledge of the benefits of refinancing among higher-income borrowers, or it may be due to other factors. Fannie Mae has reported that it has undertaken a project with ACORN to better educate lower-income homeowners about the gains from refinancing their loans.

F. Conclusions

This section has described basic characteristics of the mortgages that the GSEs purchased in 1996 and 1997 and summarized some trends over the 1993-97 period. Six points stand out. First, almost all of the loans purchased by the GSEs are for the purchase of a home or the refinancing of an existing mortgage. The GSEs' acquistions of home purchase loans generally move in tandem, but in 1997 Fannie Mae's purchases of such loans rose by 4 percent, while Freddie Mac's purchases declined by 10 percent.

Second, gains between 1993 and 1995 in the shares of the GSEs' mortgages taken out by very low-income families continued between 1995 and 1997. The very low-income share of home purchase mortgages rose from 6.8 percent in 1993 to 9.3 percent in 1995 and 10.1 percent in 1997 for Fannie Mae, and from 6.2 percent in 1993 to 6.8 percent in 1995 and 7.5 percent for Freddie Mac.

Third, some of the gains in minorities' shares of the GSEs' loans between 1993 and 1995 were reversed between 1995 and 1997. African-Americans' share of the GSEs' combined home purchase loans rose from 2.4 percent in 1993 to 3.9 percent in 1995, before slipping to 3.5 percent in 1997. The corresponding shares for Hispanics were 3.6 percent in 1993, 5.3 percent in 1995, and 4.6 percent in 1997.

Fourth, the GSEs lag the market in support for first-time homebuyer loans. In 1997, 34 percent of Fannie Mae's home purchase loans were for first-time homebuyers, somewhat above Freddie Mac's share (28 percent). But both were less than the 45 percent of buyers in the primary market who are first-time homebuyers and well below the two-thirds of FHA-insured home purchase loans for such buyers in recent years.

Fifth, somewhat surprisingly, the lower-income loans purchased by the GSEs generally have had higher downpayments than the loans they have purchased which were taken out by higher-income families. Specifically, in 1993, 86 percent of very low-income borrowers made down payments of 20 percent or more, exceeding the corresponding high down payment shares for families with incomes between 60 percent and 100 percent of area median income (80 percent) and families with incomes in excess of area median (79 percent). This same pattern, of the highest down payments being made by the lowest-income borrowers, also prevailed for the GSEs' 1994-97 purchases.

Finally, the gap between Fannie Mae and Freddie Mac in most dimensions of lower-income and minority lending narrowed between 1995 and 1996, but widened again between 1996 and 1997. For example, the share of Freddie Mac's loans made for properties in low-income tracts rose between 1995 and 1996, while the corresponding share for Fannie Mae's loans remained unchanged. But this pattern was reversed in 1997, restoring the 1995 gap between the GSEs in their purchases of loans on properties in these areas.

Appendix A
GSEs' Housing Goals for 1993-95

In October 1993 the Secretary established three goals for Fannie Mae and Freddie Mac for the 1993-95 "transition period":

- A **low- and moderate-income goal**, set at 30 percent (28 percent for Freddie Mac for 1993)--i.e., for each year, 1994-95, at least 30 percent of total units financed by each GSE's mortgage purchases should have been (1) owner-occupied units for which the borrower's income is less than or equal to area median income or (2) rental units with rents (adjusted for unit size) not in excess of 30 percent of area median income;

- A **geographically-targeted goal**, also set at 30 percent (26 percent for Freddie Mac and 28 percent for Fannie Mae for 1993)--i.e., for each year, 1994-95, at least 30 percent of total units financed by each GSE's mortgage purchases should have been for properties located in **central cities**, as defined periodically by the Office of Management and Budget;

- A **special affordable goal**, set at $16.4 billion and $11.9 billion for 1993-94 combined for Fannie Mae and Freddie Mac respectively, and at $4.6 billion and $3.4 billion for 1995--i.e., at least these dollar amounts of units financed by the GSEs' mortgage purchases should have been owner-occupied units for which the borrower's income was less than or equal to (1) 60 percent of area median income (very low-income families) or (2) if located in a low-income census tract or nonmetropolitan county, 80 percent of area median income (low-income families in low-income areas), or rental units affordable at these income levels.

The performance of the GSEs on each goal between 1993 and 1995 are shown in Table A.1.[39] Both GSEs' performance exceeded their low-mod goals in every year during the transition period. For example, 43 percent of Fannie Mae's purchases and 39 percent of Freddie Mac's purchases qualified as low-mod purchases in 1995; these figures far surpassed HUD's 30 percent target for the low-mod goal. Fannie Mae surpassed the central cities goals in two of the three years (1994 and 1995), but Freddie Mac fell short of the goals in all three years. With regard to special affordable mortgages, both GSEs exceeded their aggregate targets for 1993-95.

[39] For a full discussion of the transition period housing goals, see Chapter 3 of HUD's privatization study, Privatization of Fannie Mae and Freddie Mac: Desirability and Feasibility, A HUD Report, Office of Policy Development and Research, HUD, July 1996.

Appendix B
Missing Data for the GSEs' Loans

For some mortgages the GSEs have not collected sufficient data to determine whether or not the units financed qualify for the low- and moderate-income and special affordable goals established by the Secretary. Information on the extent of this "missing data" is presented in Table B.1 for 1993-97 for mortgages on owner-occupied units, where borrower income is needed in order to measure performance on these two goals, and for single-family and multifamily rental units, where tenant rent is needed. Although there is not a first-time homebuyer goal for the GSEs, there is a great deal of interest in the GSEs' provision of such financing, and the GSEs are required to provide HUD with data on home purchase mortgages to distinguish first-time buyers from repeat buyers--thus "missing homebuyer status" is also included in Table B.1.[40]

It should be noted that the GSEs are not required to collect income and rent information on mortgages which were originated prior to 1993, since the 1992 GSE Act did not take effect until January 1, 1993.[41] However, this is the *only* situation where a GSE's responsibility to collect income and rent data for the units financed has been waived by the Department.

Several points stand out in Table B.1:

- In every category in every year, Fannie Mae has had substantially more missing data than Freddie Mac--e.g., in 1997 tenant rent was missing for nearly 28 percent of the single-family rental units financed by Fannie Mae, but for fewer than 2

[40]The GSEs define "first-time homebuyer" as a buyer who will reside in the mortgaged premises who had no ownership interest (sole or joint) in a residential property during the three-year period preceding the date of the purchase of the home.

[41]Purchases of pre-1993 mortgages with missing income or rent data have no effect on the GSEs' goal performance, since any such mortgages are excluded from the numerator and the denominator in calculating performance under the low- and moderate-income and special affordable goals. If a GSE obtains this data for pre-1993 mortgages, the units are included in the denominator and, as appropriate, the numerator in calculating goal performance.

percent of such units financed by Freddie Mac;

- With the exception of 1995, the missing data problem has diminished steadily over time for Freddie Mac, which may be explained by a decrease in the share of its purchases accounted for by pre-1993 originations;

- The missing data problem has gotten worse in recent years for Fannie Mae--for example, the percentages of owner-occupied units with missing borrower income and multifamily units with missing tenant rent were higher in 1997 than in 1994;

- With the exception of missing homebuyer status, which was more prevalent in its 1997 data than in its 1994 data, Freddie Mac may have reduced the missing data problem to the lowest feasible level in 1997; and

- The reasons for Fannie Mae's weak record of data collection are not clear, but it has far to go to reach a satisfactory level of data quality.[42]

The Department plans to explore this missing data question in more detail in the future, and future analyses relating to the GSEs' purchases may highlight such data more than has been done in the past, when units with missing data have typically been excluded in making tabulations.

[42] If all acquisitions of mortgages originated prior to 1993 were excluded from Table B.1, the missing data percentages would be much lower for 1993 and somewhat lower in some cases for other years, but the same general conclusions would follow.

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